

MONTHLY CURRENT AFFAIRS

By



SOURCES



Index

GSI	12
1. El Nino, other factors to cause warm winter - Indian Express.....	12
2. 'India will be largest cotton producer' - The Hindu	12
3. Juvenile crime rate highest in Delhi last yr: NCRB data - Indian Express.....	13
4. Garba dance of Gujarat makes it to UNESCO list - The Hindu/ Garba gets Unesco tag of 'intangible cultural heritage' - Indian Express.....	13
5. India's re-emergence in field of art and architecture will benefit entire world, says PM - The Hindu 14	14
6. Volcano in Iceland erupts after being preceded by thousands of earthquakes - The Hindu.....	14
7. Declare floods in Tamil Nadu districts as national disaster: Stalin - The Hindu.....	15
8. Speed up measures for new dam at Mullaperiyar, Kerala tells Central Water Commission - The Hindu.....	16
9. 11th century Jain sculptures discovered in Mysuru district - The Hindu.....	16
GS II	17
10. As US sanctions on Venezuela ease, India set to import oil after 3 years - Indian Express	17
11. Navy Chief: Centre to decide on scaling down military presence in Maldives - Indian Express... 17	17
12. T.N. Governor cannot refer re-enacted Bills to President, says SC - The Hindu/ Governor can't send re-adopted Bill to President after withholding assent: SC - Indian Express	18
13. Guidelines out against 'dark patterns' that mislead buyers - Indian Express	19
14. Highest cases of sexual violence make Delhi most unsafe for women - The Hindu	20
15. After COVID break, Centre approves fourth phase roll-out of GIAN scheme - The Hindu	20
16. One-third of all 2022 suicides were of daily wage earners, farmers, says NCRB report - The Hindu 21	21
17. RS passes Post Office Bill; parties oppose 'free hand' to officers - The Hindu/ RS passes Post Office Bill, Vaishnaw allays Opp concerns on interception - Indian Express	21
18. 'India, U.S. can work through differences constructively' - The Hindu.....	22
19. Centre open to policy on transfer of High Court judges, says Law Minister - Indian Express	23
20. How many availed Sec 6A of Citizenship Act: SC to Govt - Indian Express	23
21. India announces \$250 mn line of credit to Kenya in agri sector - Indian Express	24
22. 114 seats, migrant quota cleared for J&K Assembly - The Hindu	24
23. India reminds Myanmar to return to 'federal democracy' - The Hindu	25
24. Panel working on guidelines on seizure of personal digital devices, Centre tells SC - The Hindu 25	25
25. Ministry of Panchayati Raj launched Geographic Information System application "Gram Manchitra" to encourage the Spatial Planning by the Gram Panchayat - PIB.....	26
26. Panchayat Development Index will help in comparing Panchayats in their progress of development goals across nine themes as well as in composite PDI score - PIB	27

27.	SC asks Centre to give details of inflow of 'illegal' migrants - The Hindu	27
28.	Russia, Saudi urge OPEC+ powers to join oil cuts after Putin-MbS meet - Indian Express	28
29.	EU tells China 'differences' must be addressed; Italy pulls out of BRI pact - The Hindu/ Only major Western nation to join, Italy leaves China's Belt and Road Initiative - Indian Express.....	28
30.	Reservation policy need not be followed, merit must be sole criterion for appointment of law officers: HC - The Hindu	29
31.	UGC nod soon for short-term courses - The Hindu.....	29
32.	6% of cough syrup samples fail export quality test - The Hindu	30
33.	Private Bill seeks power for Assemblies to remove Governors - The Hindu.....	30
34.	Freebie politics will take a toll on economy: Dhankhar -The Hindu	31
35.	Cases of human trafficking victims being forced to commit cybercrimes on the rise -The Hindu	31
36.	Cauvery basin lost nearly 12,850 sq. km of green cover' -The Hindu	32
37.	Switzerland, Norway Ministers arriving for dialogue on trade -The Hindu	33
38.	Renaming Ayushman Bharat health facilities may cost Punjab ₹1,800 cr. -The Hindu	33
39.	J&K parties anxious ahead of Supreme Court verdict on Article 370 -The Hindu.....	34
40.	President's actions during State Emergency open to scrutiny: SC - The Hindu	34
41.	Local bodies can be allocated a portion of GST collections, says N K Singh - Indian Express	35
42.	TRUTH AND RECONCILIATION COMMISSION - Indian Express	36
43.	Lok Sabha passes Bills for women's quota in J&K, Puducherry - The Hindu/ LS clears 2 Bills extending women's quota to Puducherry, J-K assemblies - Indian Express	36
44.	Rajya Sabha passes Bill for appointment of CEC, ECs - The Hindu/ Opposition slams CEC Bill: Against Constitution, SC judgment, EC freedom - Indian Express	37
45.	Kerala elderly rely on MGNREGS, younger workers opt for higher paying labour: Data - Indian Express	37
46.	74% Indians could not afford healthy diet in 2021: report - The Hindu	38
47.	Trade deal with Oman could boost India's economic ties with West Asia, says GTRI - Indian Express	39
48.	POMPE DISEASE - Indian Express	40
49.	US approved Gene therapies to treat sickle cell disease – The Hindu.....	40
50.	India votes in favour of immediate ceasefire in Gaza by Israel - The Hindu/ India shifts stand, backs UNGA resolution on 'immediate ceasefire' - Indian Express	41
51.	House passes Bill to set up Central tribal university in Telangana - The Hindu/ Rajya Sabha clears Central Universities Bill, repealing of 76 redundant and obsolete laws - Indian Express.....	41
52.	'Automatic expiry of stay prejudices litigant': Top court reverses its order - Indian Express.....	42
53.	Constitute nodal authority for declared foreigners, Gauhati High Court tells Assam govt. - The Hindu	43
54.	Madras HC: whether killing of Hindu religious leaders is a terrorist act is debatable - The Hindu	43

55.	Delisting parties with religious names: 'only House can decide' - The Hindu	44
56.	Anthrax outbreak in South Africa: All you need to know about the infectious disease - India Today	44
57.	After troop removal demand, Maldives says ending pact with India on water survey - Indian Express	45
58.	Urgent need to control use of e-cigarettes, says WHO - The Hindu.....	45
59.	Maldives will not renew agreement for joint hydrographic survey with India: top official - The Hindu	46
60.	ICT import duty: India challenges WTO panel ruling in favour of EU - Indian Express	47
61.	India, UK working on mobility regime for service sector workers under FTA: Official - Indian Express	47
62.	School of happiness to take root in Assam - The Hindu.....	48
63.	Aadhaar-based consent for children to go online - Indian Express	48
64.	Optimistic on trade agreement ahead of elections: Swiss, Norway Ministers - The Hindu	49
65.	Modi flags off Viksit Bharat Sankalp Yatra in 5 States, says focus will be on smaller cities - The Hindu	49
66.	Assam Rifles plans op changes for deployment on LAC, if required - Indian Express.....	50
67.	CT scans associated with increased risk of blood cancers - The Hindu.....	51
68.	Omnibus Telecom Bill in Lok Sabha, legislation to streamline regulation - The Hindu/ Telecom Bill paves way for allocation of satellite spectrum - Indian Express	51
69.	Far fewer CAG audits of Centre tabled in Parliament - The Hindu	52
70.	OBC representation in AIIMS faculty low, says House panel - The Hindu	53
71.	'Religious character' of a place of worship can be decided only in a trial, says Allahabad HC - The Hindu	53
72.	Netanyahu calls Modi to discuss maritime threat in Red Sea - The Hindu.....	54
73.	GST regime brought down prices, says Nirmala as RS returns two taxation Bills - The Hindu/ House nod to raise age limit for GST Appellate Tribunals President, members - Indian Express.....	55
74.	Under new law, doctors face two years of imprisonment for death due to negligence - The Hindu/ Docs thank Govt, but in BNS they can still face criminal cases - Indian Express.....	55
75.	Shri Narayan Rane launches three sub-schemes under the RAMP programme - PIB	56
76.	Government aims to set up 17,000 creches across India - The Hindu.....	57
77.	'Doklam remains a challenge... influx from Myanmar in north Manipur new trend' - Indian Express	57
78.	China bans export of rare earth technologies - The Hindu	58
79.	Center exploring one-stop health sector regulator - The Hindu.....	58
80.	Ministry of Textiles launches "Paat-Mitro" application to facilitate jute farmers - PIB.....	59
81.	Ministry holds meet with CMs of northeast States over lag in DevINE scheme - The Hindu	60

82.	Japan passes record military budget, eases postwar ban on export of lethal weapons - Indian Express	60
83.	Cash transfers help Bengal women take financial decisions, says study - The Hindu	61
84.	Tribunals cannot direct govt. to frame policy: SC judgment - The Hindu	61
85.	With no basic facilities, district courts struggling to conduct hybrid hearings - The Hindu	62
86.	India-ASEAN to rejig 15-year trade pact in early 2024 - The Hindu	62
87.	Govt. targets documents' saturation in PVTG villages in one week - The Hindu.....	63
88.	UNHCR thanks India for taking care 142 Rohingyas intercepted in Andaman - The Hindu.....	64
89.	Women participation in NREGS continues to rise, 59% this fiscal - Indian Express.....	64
90.	Iran increasing production of enriched uranium, says IAEA report - Indian Express.....	65
91.	On the occasion of Good Governance Day, Union Minister Dr Jitendra Singh launches the Extended Version of Mission Karmayogi - PIB	65
92.	PM-Kisan beneficiaries dwindling, Govt adds 34 lakh in special drive - Indian Express	66
93.	UGC releases draft norms on recognition of colleges in India - The Hindu	67
94.	Hurriyat chief's outfit an unlawful association: Centre - The Hindu.....	67
95.	US maintains cold war mindset: China after breakthrough military discussion - Indian Express. 67	
96.	Women account for 49% of Ayushman cards, says Ministry - The Hindu	68
97.	SC Collegium recommends CJs to five High Courts - The Hindu/ Top Court Collegium recommends names for CJs of five HCs - Indian Express	68
98.	In SC, Kerala seeks norms for Governors on reserving Bills - The Hindu	69
99.	Javier Milei writes to BRICS leaders, rejects invite for Argentina to join the grouping - The Hindu 69	
100.	India closing in on lithium deal with Argentina, tapping Australia, Chile - The Hindu.....	70
101.	PM SVANidhi benefits over 57 lakh street vendors across country: Union Minister Hardeep S Puri - PIB	70
GS III	71
102.	SC to hear Punjab's plea on extension of BSF jurisdiction - The Hindu/ Extending BSF Jurisdiction doesn't take away powers of Punjab Police, says SC - Indian Express.....	71
103.	India offers to host 2028 climate meet - The Hindu/ PM pitches India as host for 2028, calls on countries to rise above self-interest - Indian Express	71
104.	Manufacturing PMI rebounds in Nov. - The Hindu/ Factory production rises in November as prices ease, demand strengthens: PMI - Indian Express.....	72
105.	India not among 118 nations that pledged to push green energy - The Hindu/ Over 110 countries pledge to triple renewable energy capacity by 2030 - Indian Express/ Coal phase-out in COP28 pledge, India refrains from endorsing it - Indian Express	73
106.	Stocktake should account for failures of developed countries: BASIC grouping - The Hindu	73
107.	Six exoplanets found orbiting a nearby bright star - The Hindu	74
108.	Codex Alimentarius Commission Praises India's Standards on Millets - PIB	75

109.	Over half of FY23 bank loan write-offs linked to large industries, services sector - Indian Express 75	
110.	Centre committed to increasing the strength of women in defence forces, says Modi - The Hindu/ Navy ranks to be renamed in line with Indian traditions: PM - Indian Express.....	76
111.	Cyber crime cases up by 25%, fraud most common motive: NCRB data - Indian Express.....	77
112.	IISER Bhopal researchers conduct first genome sequencing of jamun - Indian Express	78
113.	Glaciers shrank 1 m a year in a decade: WMO - The Hindu.....	78
114.	India's CO2 emission may register biggest rise for 2nd yr: study - Indian Express	79
115.	One-third of India's coastline vulnerable to erosion: minister - Indian Express.....	79
116.	Google unveils 'Gemini,' AI tech trained to behave like humans - The Hindu.....	80
117.	COP28 enters 2nd week, but all complex issues unresolved - Indian Express.....	80
118.	RBI keeps repo rate at 6.5%, raises GDP growth forecast - The Hindu/ RBI raises GDP growth forecast to 7%, points to risk of food inflation - Indian Express	81
119.	RBI enhances UPI payment limits, to set rules for online loan aggregators - The Hindu	82
120.	India climate action fourth strongest, says report - Indian Express	82
121.	U.S. FDA approves pair of gene therapies for sickle cell disease - The Hindu	82
122.	Research Symposium at the Global Partnership on Artificial Intelligence - GPAI 2023 - PIB	83
123.	Key COP document calls for progress in adapting to climate change by 2030 -The Hindu	84
124.	Railways withdraws emergency cashless treatment scheme -The Hindu	85
125.	India ranks 7th in Climate Change Performance Index - AIR	86
126.	Youth for Unnati and Vikas with AI (YUVAi) to feature in GPAI Summit 2023 - PIB	86
127.	India-led Global River Cities Alliance launched at COP28 - Indian Express.....	87
128.	Retail inflation is stable now: FM - The Hindu	88
129.	Draft climate deal fails to 'phase out' fossil fuel - The Hindu/ Oil producers water down provision on fossil fuel phase-out - Indian Express.....	88
130.	Retail inflation rises to 5.55% in November - The Hindu	89
131.	Modi kicks off global AI summit - The Hindu	90
132.	Base effects boosted IIP growth to 11.7% in October - The Hindu/ Food prices drive November inflation to 3-month high; Oct IIP at 16-month peak - Indian Express	91
133.	Export-oriented green hydrogen projects may get govt's fiscal support - Indian Express	91
134.	COP-28 calls for 'transition away' from fossil fuels - The Hindu/ For first time, nations strike deal to move away from fossil fuels - Indian Express	92
135.	Road fatalities rise in India, despite global drop: WHO - The Hindu.....	94
136.	'New Delhi Declaration' on artificial intelligence adopted - The Hindu/ GPAI members back equitable AI access in New Delhi declaration - Indian Express	95
137.	Indian Forest & Wood Certification Scheme launched to promote Sustainable Management of forests and agroforestry - PIB	96
138.	Amrit Technology For Removal Of Arsenic And Metal Ions From Water - PIB.....	97

139. ISRO to launch Chandrayaan-4 to bring back samples from Moon in 4 yrs: Somanath - Indian Express 98

140. Exports shrink again, trade deficit narrows as imports fall faster - The Hindu/ Imports shrink 4.3%, trade deficit narrows in November - Indian Express..... 98

141. Unnati becomes the first entity to list on the social stock exchange - The Hindu..... 99

142. Global coal demand likely to decline 2.3% by 2026: IEA - The Hindu 100

143. 'Write-off era over, asset quality review served banking well' - Indian Express 101

144. On PSU capex push: Oil, highways, rail set the pace; steel, green power trail - Indian Express. 102

145. Afghanistan, left out of COP-28, hopes for inclusion in COP-29- The Hindu 102

146. Scientists find hydrogen cyanide, key molecule for life formation, in Saturn’s icy moon Enceladus - The Print..... 103

147. Centre launches forest certification scheme to counter foreign agencies - Indian Express 104

148. Citing cost, time overrun, Uttarkashi project said no to separate rescue tunnel - Indian Express 105

149. RBI tightens norms for lenders investing in AIFs - Indian Express/ RBI tightens norms for AIF investments - The Hindu 105

150. 'Exchange rate flexibility is a key shock absorber for India' - Indian Express 106

151. States can borrow an extra ₹2 lakh crore this fiscal year - The Hindu/ Govt allows extra borrowing ceiling of over 60,000 crore to states for NPS - Indian Express..... 107

152. WHO tags JN.1 strain as 'variant of interest' as Covid cases rise - Indian Express..... 107

153. Taxpayers can withdraw court cases, 'approach GST Tribunals for faster rulings' - The Hindu . 108

154. 'Objective of aligning inflation with 4% target far from assured' - Indian Express 108

155. Disinflation may pave way for interest rate cut: RBI officials - The Hindu..... 109

156. What are solid-fuel missiles, and why is North Korea developing them?- Reuters..... 109

157. Indian Air Force successfully testfires 'SAMAR' air defence missile system at Exercise Astrashakti-Economic times 110

158. National Culture Fund (NCF) Received Rs. 3.70 Crore From Non-Government Sources During Last Five Years- PIB 110

159. In big AI push, Centre to step up compute capacity, offer free services to startups - Indian Express 111

160. Centre approves deployment of CISF in Parliament complex - The Hindu/ CISF to be brought in for Parliament security - Indian Express 111

161. 'Rating firms' biases raise developing nations' funding costs' - The Hindu/ Rating agencies too subjective, loaded against India, need reform: CEA - Indian Express 112

162. RBI releases draft omnibus framework for SROs, seeks views - The Hindu..... 113

163. Centre considers compensation for exporters hit by UK, EU carbon tax - Indian Express 113

164. Sebi issues paper on instant settlement of trades, seeks views - Indian Express..... 114

165. Sea turning red in Puducherry | NGT panel inspects beach, to submit report in 15 days - Indian Express 115

166.	Two drone-dropped packets with arms, cash seized near LoC in Jammu- The Hindu.....	116
167.	At least 85% of power from VGF-funded Battery Energy Storage Systems projects to be first offered to Discoms before making it available for others: Union Power and New & Renewable Energy Minister - PIB.....	116
168.	'India's Russian crude imports averted havoc in global oil market' - Indian Express.....	117
169.	Railway officers to be trained in disaster management; academy, institute to give training - The Hindu	117
170.	Risk of stagflation receding: RBI officials - The Hindu	118
171.	First rupee payment for oil to UAE: India looks for more deals, no targets, say officials - Indian Express	119
172.	India, Oman free trade agreement likely in January - Indian Express	120
173.	ICMR initiates steps for non-invasive testing method to tackle anaemia - The Hindu.....	120
174.	Renewable energy investments to surge 83% to \$16.5 billion in 2024 - The Hindu	121
175.	India, Russia ink 'key' pacts related to Kudankulam nuclear power plant - The Hindu/ India, Russia sign pacts on future units of Kudankulam plant - Indian Express.....	121
176.	Ministry sends social media firms advisory to regulate deepfakes - The Hindu.....	122
177.	Milli-second burst detected by AstroSat in new high magnetic field neutron star can help understand such stellar entities - PIB.....	122
178.	Centre hikes copra MSP by ₹250-₹300 per quintal for 2024 - The Hindu	123
179.	Indian banks' asset quality improved to decadal high: RBI - The Hindu	124
180.	NGT court takes suo motu cognisance of T.N. gas leak - The Hindu.....	125
181.	Pegasus spyware found on journalists' phones after Apple alert, says Amnesty - The Hindu ...	126
182.	COVID-19-hit MSMEs can tap new relief window from Jan. 1 - The Hindu	127
183.	FIU slaps Binance and other crypto exchanges with show-cause notices - The Hindu/ Binance, eight other offshore crypto firms get notice over PMLA non-compliance - Indian Express.....	127
184.	Sebi unveils norms for zero coupon instruments by NPOS - Indian Express	128
185.	Indian Navy unveils new epaulettes for admirals - The Hindu	128
186.	Core sectors' growth skids to 6-month low in November - The Hindu/ Nov core sector growth falls to 6-month low - Indian Express.....	129
187.	New Android malware can steal your password by disabling fingerprint and face unlock - Indian Express	130
188.	Researchers develop 'electronic soil' to enhance crop growth - Indian Express.....	130
Quick Look		132
1.	Cyclone Michaung	132
2.	Green Credits Initiative	132
3.	World AIDS Day	132
4.	Santjordia Pagesi.....	132
5.	Press Mud.....	133

6.	Hauz-e-Shamsi (Delhi)	133
7.	Defence Acquisition Council (DAC)	133
8.	Project Kuiper.....	133
9.	Anthrobots	134
10.	Voice over 5G	134
11.	International Maritime Organisation	134
12.	FjordPhantom.....	134
13.	Buxa Tiger Reserve (BTR).....	135
14.	The Pacific Ring of Fire	135
15.	Red Sea	135
16.	Buoy.....	135
17.	Abelmoschus Odishae	135
18.	Geographical Indication Tag.....	136
19.	INS Sandhayak	136
20.	International Social Security Association	136
21.	Pilatus PC-7 Mk II.....	137
22.	CV-22B Osprey.....	137
23.	Lakadong Turmeric.....	137
24.	Global Positioning System (GPS)	137
25.	BharatNet Project.....	138
26.	Kesavananda Bharati Judgement	138
27.	Multiple Sclerosis	138
28.	Global Multidimensional Poverty Index.....	138
29.	Chandrayaan 3's Propulsion Module	139
30.	Pulsars	139
31.	Kopili Fault Zone	139
32.	Group of Companies' Doctrine.....	140
33.	Oil and Gas Decarbonization Charter (OGDC).....	140
34.	National Automated Fingerprint Identification System (NAFIS)	140
35.	Ibu Volcano.....	141
36.	Assam Accord	141
37.	Hatti community.....	141
38.	Indian Pharmacopoeia Commission.....	141
39.	Council for the Indian School Certificate Examination (CISCE)	141
40.	Syphilis.....	142
41.	National Mission for Clean Ganga (NMCG).....	142

42.	Goldilocks Effect.....	142
43.	Banni Grassland.....	142
44.	Green Rising Initiative	143
45.	Road Safety Good Practices in India.....	143
46.	Wheeler Island	143
47.	Ghaggar River	143
48.	Yellow Sea	144
49.	Pangalokha Wildlife Sanctuary.....	144
50.	Organ Transplant.....	144
51.	Kambalakonda Wildlife Sanctuary	145
52.	Exercise VINBAX 2023	145
53.	Red Sprite	145
54.	Otolith rings.....	145
55.	Indian Mouse Deer	146
56.	Demaorchestia alanensis	146
57.	GST Appellate Tribunals (GSTATs).....	146
58.	Bab al-Mandab strait.....	146
59.	Cassiopeia A.....	147
60.	Saiga Antelope.....	147
61.	Indira Gandhi Peace Prize.....	147
62.	Protection of Children from Sexual Offences (POCSO) Act, 2012.....	147
63.	ENACT Partnership	148
64.	Barracuda	148
65.	Constitutional Monism.....	148
66.	Vyommitra.....	149
67.	Terai.....	149
68.	Doosra App.....	149
69.	Vijay Diwas	149
70.	INS Tarmugli	149
71.	Mumps	150
72.	PACE (Plankton, Aerosol, Cloud, Ocean Ecosystem) Mission.....	150
73.	“Di tankia Chaula” Scheme.....	150
74.	Abel Prize.....	151
75.	Logistics Ease Across Different States (LEADS) Report, 2023.....	151
76.	Ketamine	151
77.	Surat Diamond Bourse	152

78.	KAPP-3	152
79.	Criticality.....	152
80.	One Nation One Ration Card.....	152
81.	JN.1 Virus.....	153
82.	National Green Tribunal (NGT).....	153
83.	Sargasso Sea	153
84.	The Anti-Defection Law.....	153
85.	Direct Tax.....	154
86.	The Pradhan Mantri Schools for Rising India (PM-SHRI) Yojana.....	154
87.	Open Market Sale Scheme	154
88.	Swarved Mahamandir	154
89.	National Geoscience Data Repository Portal	155
90.	District Mineral Foundation (DMF)	155
91.	Greenwashing.....	155
92.	Cholera	155
93.	Lumpy Skin Disease (LSD).....	155
94.	Mithila	156
95.	Janakpuri	156
96.	Mullaperiyar Dam.....	156
97.	Andriamamelolo Cave	156
98.	UNESCO's Prix Versailles 2023	157
99.	Namdapha Flying Squirrel	157
100.	Press and Registration of Periodicals Bill, 2023	157
101.	Polar Stratospheric Clouds (PSC).....	158
102.	Sahitya Akademi Award	158
103.	National Cooperative Exports Limited	158
104.	Valmiki Tiger Reserve	158
105.	R21/Matrix-M Malaria Vaccine	158
106.	Wildlife Trust of India.....	159
107.	PM-AJAY Scheme.....	159
108.	Light Combat Aircraft Programme	159
109.	Light Combat Helicopter Programme	159
110.	Ennore Creek.....	159
111.	Winter Solstice	160
112.	Pantoea Tagorei	160
113.	Project PRAYAS.....	160

114.	Pappathi Chola	160
115.	BRAHMA (Braided River Aid: Hydro-Morphological Analyzer) - 2D.....	160
116.	Bad Cholesterol	161
117.	Foreign Portfolio Investment (FPI)	161
118.	Disinvestment.....	161
119.	Leprosy	162
120.	Indian Ocean Naval Symposium.....	162
121.	Strait of Gibraltar.....	162
122.	Fiscal Deficit.....	162
123.	Current Account Deficit.....	162
124.	OSIRIS-APEX.....	163
125.	MedTech Mitra portal	163
126.	Chandra River	163
127.	Qiantang River.....	163
128.	AS-24 Killjoy.....	164
129.	South China Sea.....	164
130.	Cryptocurrency.....	164
131.	Social Stock Exchange.....	164
132.	PM-JANMAN.....	165
133.	Gulf of Mexico	165
134.	Foreign Exchange Management Act (FEMA).....	165
135.	Index of Industrial Production.....	165
136.	James Webb Space Telescope.....	166
137.	Financial Intelligence Unit India	166
138.	Mian Tansen.....	166
139.	Organised Crime and Corruption Reporting Project (OCCRP).....	167
140.	Buddhism.....	167
141.	National Association of Street Vendors of India	167

Important News Articles

GS I

1. El Nino, other factors to cause warm winter - Indian Express

Relevance: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone. etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

News:

- The India Meteorological Department (IMD) **anticipates an unusually warm winter season across the country**, attributing it to global warming trends.
- November 2023** marked the **third warmest** November in India since 1901, contributing to the possibility of 2023 becoming the warmest year ever recorded globally.

Prelims Takeaway

- Cyclone
Michaung

Factors Influencing Warm Winter

- El Nino Impact**
- The ongoing El Nino condition, characterised by **warmer-than-usual sea surface temperatures in the equatorial Pacific Ocean**, is reaching its peak.
- The Nino 3.4 region is recorded at 2.4 degrees** Celsius above the threshold, contributing to the warming trend.

Large-Scale Features

- The Director General of IMD attributes the **warm winter to large-scale features** like El Nino, along with regional factors such as western disturbances.

Cloudy Conditions and Western Disturbances:

- Cloudy conditions **caused by western disturbances** are identified as a contributing factor, pushing up minimum temperatures.

Upcoming Cyclone Impact

- The IMD predicts the **development of a cyclone in the Bay of Bengal**, causing cloudiness and maintaining above-normal minimum temperatures in southern and eastern coastal India.

Winter Outlook

- Fewer and less intense cold waves** are expected during the December to February period, further contributing to the warmth.
- December is likely to **see no significant drop in temperatures**, except in east and northeast India.

Cyclone "Michaung"

- the impending **cyclone "Michaung"** in the southwest Bay of Bengal, moving towards southern coastal Andhra Pradesh and northern Tamil Nadu.
- A "red" alert has been issued by the IMD**, warning of extremely heavy rainfall (over 200 mm) on December 3 and 4 in coastal Andhra Pradesh.
- Telangana and southern Odisha** are also expected to be affected by the cyclone.

2. 'India will be largest cotton producer' - The Hindu

Relevance: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).

News:

- India will strive to become the largest cotton producer globally**, Minister for Textiles, Commerce and Industry, said in Mumbai
- He inaugurated an annual global meeting** of a UN recognised body of cotton producing and consuming nation

Prelims Takeaway

- National Technical
Textiles Mission

Leadership in Textile Industry

- **India plans to lead in cotton and technical textiles**, with advisory groups for both cotton and manmade fibers representing the entire textile value chain.
- **The country has launched PM MITRA**, a scheme for mega textile parks to boost the entire textile value chain.
- **Currently the second-largest producer**, but there is the need to enhance productivity to rival countries like Australia.

National Technical Textiles Mission

- **It focuses on research and development** in technical textiles, which serve specific functions rather than aesthetic appeal.
- The mission aims to promote **innovation and improve the quality** of technical textiles.

Ambitious Industry Targets

- The Indian textile industry aims **to achieve \$250 billion by 2030, including \$100 billion from exports**.
- **The "Kasturi Cotton Bharat" brand**, claimed to be traceable through blockchain technology and "carbon positive," was introduced.

3. Juvenile crime rate highest in Delhi last yr: NCRB data - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- According to the latest **National Crime Records Bureau (NCRB) report**, the national capital recorded the **highest rate of crimes committed by children** last year

Prelims Takeaway

- NCRB

Key Points

- Total number of **crimes committed by minors** across the country (30,555 cases).
- Delhi's **rank and position (6th)** in comparison to other states.

Delhi's Disturbing Statistics

- Increase in juvenile **crime rate by 42% in 2021**.
- Specifics on the **number of cases in 2020 (2,643) and 2021 (2,340)**.
- Comparison with other states like **Maharashtra, Madhya Pradesh, and Rajasthan**.

Violent Offenses

- There is **Involvement of minors in theft**, robbery, and carrying deadly weapons.
- There is **Slow disposal of cases** and a large number of minors awaiting trial.
- There was seen **significant increase in crimes at railway stations** in Delhi.

4. Garba dance of Gujarat makes it to UNESCO list - The Hindu/ Garba gets Unesco tag of 'intangible cultural heritage' - Indian Express

Relevance: Indian culture will cover the salient aspects of Art Forms, literature and Architecture from ancient to modern times.

News:

- The **Garba dance**, a prominent feature of the Navratri festival, has been included in **UNESCO's Representative List of the Intangible Cultural Heritage of Humanity**.

Prelims Takeaway

- Garba Dance

Garba Dance

- **Garba is a ritualistic and devotional dance** performed during Navratri, dedicated to the worship of feminine energy or 'Shakti.'
- **Dancers, musicians, social groups, craftspeople**, and religious figures participate in the festivities.
- The dance revolves around a **perforated earthenware pot lit** with an oil lamp or an image of the goddess Amba.
- Participants wear colourful dresses, **move in a counterclockwise circle**, and incorporate **simple steps** like hopping and clapping hands.

Cultural Significance

- Garba's inclusion highlights its role in **fostering social and gender inclusivity**.
- The dance is **deeply rooted in Hindu festivals and rituals**, connecting people from diverse backgrounds.

Other Indian Cultural Phenomena

- The UNESCO list also includes India's cultural phenomena **such as Ramlila, Vedic Chants, Kumbh Mela, and Durga Puja**.

5. India's re-emergence in field of art and architecture will benefit entire world, says PM - The Hindu

Relevance: Indian culture will cover the salient aspects of Art Forms, literature and Architecture from ancient to modern times.

News:

- Prime Minister **inaugurated the first India Art, Architecture, and Design Biennale (IAADB) 2023** at the Red Fort
- It emphasises **India's re-emergence in art and architecture** on a global scale.

Prelims Takeaway

Indira Gandhi National Centre for Arts

Key Points

Global Cultural Initiative

- The government is **working to establish a modern system** akin to cultural events in cities like Venice, London, and Sao Paulo.

Cultural Spaces

- The Prime Minister mentioned **ongoing cultural space projects in Delhi, Kolkata, Mumbai, Ahmedabad, and Varanasi**, aiming to enrich these cities culturally.

Biennale Themes

- The **maiden biennale will feature exhibitions** in seven themes, including :
 - Doors of India
 - Gardens of India
 - Baolis (step-wells) of India
 - Temples of India
 - Architectural Wonders of Independent India
 - Indigenous Design
 - Women in Architecture and Design.

Immersive Experience

- **Exhibitions will be presented in both physical and digital formats** to offer an immersive experience, featuring interactive installations.

Educational Component

- The event includes panel discussions and interactive sessions to **raise awareness about India's built heritage** among audiences.

Atma Nirbhar Bharat Centre for Design

- A special gallery curated by the **Indira Gandhi National Centre for Arts called 'Atma Nirbhar Bharat Centre**
 - for Design' will showcase rare and unique crafts of India, providing a platform for promotion.

6. Volcano in Iceland erupts after being preceded by thousands of earthquakes - The Hindu

Relevance: Important Geophysical phenomena such as earthquakes, Tsunami, Volcanic activity, cyclone. etc., geographical features and their location-changes in critical geographical features (including water-bodies and ice-caps) and in flora and fauna and the effects of such changes.

News:

- A **volcano erupted in southwestern Iceland**, spewing semi-molten rock into the air in a spectacular show of Earth's power in the land known for fire and ice.

Prelims Takeaway

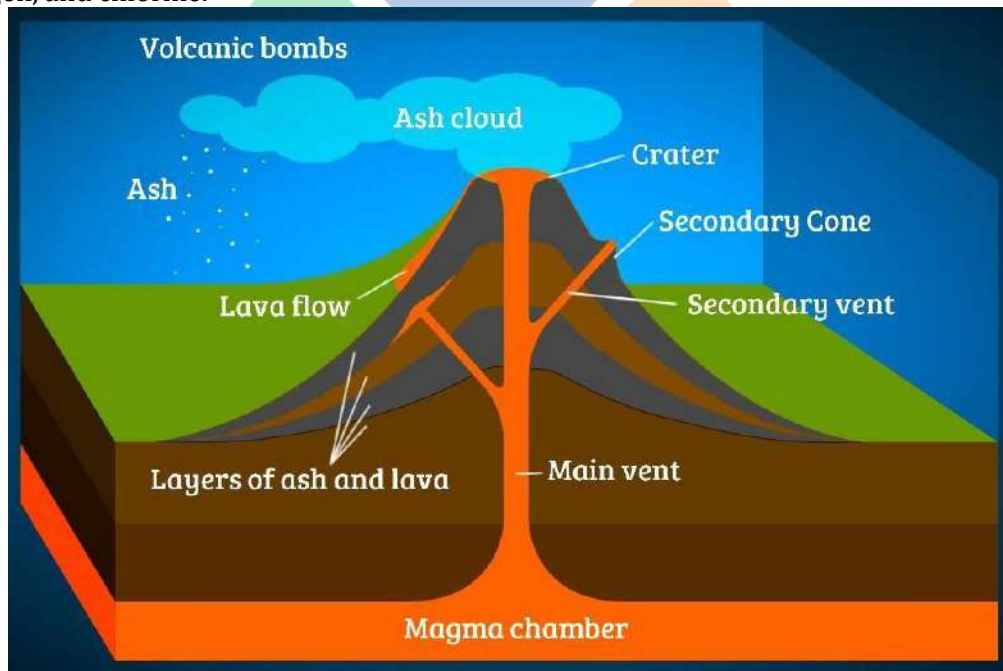
- Iceland
- Arctic Circle

Key Points

- **Iceland**, which sits just **below the Arctic Circle** and above a volcanic hotspot in the **North Atlantic**
- Eruption in Iceland averages an eruption **every four to five years**.
- The most disruptive in recent times was the 2010 eruption of the **Eyjafjallajokull volcano**, which spewed huge clouds of ash into the atmosphere
- It led to widespread airspace closures over Europe.
- The current eruption is **not expected to release ash** into the air because **it does not lie under water or ice**.
- A volcanic range on the Reykjanes Peninsula, about 50 kilometers (31 miles) southwest of the capital
- Reykjavik has **erupted three times since 2021**, after being dormant for 800 years.

Volcanoes

- A volcano is a **vent or fissure in Earth's crust** through which lava, ash, rocks, and gases erupt.
- An **active volcano** is a volcano that has **erupted in the recent past**.
- The mantle contains a weaker zone known as the asthenosphere and **magma** is the material present in the **asthenosphere**.
- Material that flows to or reaches the ground comprises lava flows, volcanic bombs, pyroclastic debris, dust, ash, and gases.
- The gases may be **sulphur compounds, nitrogen compounds**, and trace amounts of argon, hydrogen, and chlorine.


7. Declare floods in Tamil Nadu districts as national disaster: Stalin - The Hindu

Relevance: Disaster and disaster management.

News:

- The Chief Minister of Tamil Nadu has urged the Union Government to declare the extensive damage caused by **unprecedented rainfall** in Tirunelveli and Thoothukudi districts as a '**National Disaster**.'

National Disaster

- The **Disaster Management Act, 2005**, defined "disaster" as:
 - A catastrophe, mishap, calamity or grave occurrence in any area
 - It arises from natural or man-made causes, or by accident or negligence
 - it results in substantial loss of life or human suffering or damage to, and destruction of, property
 - It is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area.
- A **natural disaster** includes earthquakes, flood, landslide, cyclone, tsunami, urban flood.

Prelims Takeaway

- National Disaster Management Authority (NDMA)
- Disaster Management Act

- A **man-made disaster** can be nuclear, biological and chemical.

National Disaster Response Force

- The Disaster Management Act has statutory provisions for the constitution of the National Disaster Response Force (NDRF)

Objective:

- It is aimed at a specialised **response to natural and man-made disasters**.
- NDRF carries out rescue and relief operations during natural disasters.
- In addition, NDRF has the capability to respond to nuclear, biological and chemical disasters.

Chairman

- The apex body of disaster management is the National Disaster Management Authority (NDMA).
- NDRF functions under NDMA.
- Chairman of NDMA is the **Prime Minister**

8. Speed up measures for new dam at Mullaperiyar, Kerala tells Central Water Commission - The Hindu

Relevance: Distribution of key natural resources across the world (including South Asia and the Indian sub-continent); factors responsible for the location of primary, secondary, and tertiary sector industries in various parts of the world (including India).

Prelims Takeaway

- Periyar River
- Mullayar river

News:

- The State government has urged the Centre to **speed up measures for building a new dam at Mullaperiyar** in Idukki district.

Key Highlights

- Kerala is committed to **supplying water to Tamil Nadu** under the Mullaperiyar agreement.
- **The old dam should be decommissioned** and replaced with a new one, allaying the concerns of the people living in the downstream regions
- **the CWC decision to ask Tamil Nadu** to finalise the terms of reference for assessing the safety of the old dam.

Mullaperiyar Dam

- The Mullaperiyar, a 126-year-old dam, is located on the confluence of the **Mullayar and Periyar rivers** in Kerala's Idukki district.
- The dam is owned, operated and **maintained by Tamil Nadu**.
- Tamil Nadu maintained it for several purposes, including **irrigation, drinking water supply and hydro-power generation**.

Periyar River

- The **Periyar River is the longest river in the state of Kerala** with a length of 244 km.
- It is also known as '**Lifeline of Kerala**' as it is one of the few perennial rivers in the state.
- **Periyar River originates from Sivagiri hills of Western Ghats**, in Tamil Nadu and flows through the Periyar National Park.
- The main tributaries of Periyar are **Muthirapuzha, Mullayar, Cheruthoni, Perinjankutti**.

9. 11th century Jain sculptures discovered in Mysuru district - The Hindu

Relevance: Indian culture will cover the salient aspects of Art Forms, literature and Architecture from ancient to modern times.

Prelims Takeaway

- Vardhamana Mahavira
- Jainism

News:

- **Three Jain sculptures** dated to around 11th century CE were discovered in Varuna village in Mysuru district early this week.

Key Highlights

- The sculptures were amidst a heap of debris and were recovered while digging for drainage work.
- The sculptures were shifted to the archaeology museum at the premises of the Indira Gandhi Rashtriya Manav Sangrahalaya

Jainism

- Jainism came to prominence in the 6th century B.C., when **Lord Mahavira propagated the religion**.

- There were **24 great teachers**
- The last of whom was **Lord Mahavira**.
- These **twenty-four teachers were called Tirthankaras**-people who had attained all knowledge (Moksha) while living and preached it to the people.
- The first Tirthankara was **Rishabhatha**.

Vardhamana Mahavira

- Vardhamana Mahavira, the **24th Tirthankara**, was born in 540 B.C. in a village called Kundagrama near Vaishali.
- He belonged to the Jnatrika clan and was connected to the **royal family of Magadha**.
- His **father Siddharta** was the head of the Jnathrika Kshatriya clan and his mother Trishala was a sister of Chetaka, the king of Vaishali.
- At the age of 30 years, **he renounced his home and became an ascetic**.
- He **practiced austerity for 12 years** and attained highest spiritual knowledge called Kaivalya (i.e. conquered misery and happiness) at the age of 42 years

GS II**10. As US sanctions on Venezuela ease, India set to import oil after 3 years - Indian Express**

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- The United States lifts sanctions on Venezuela, **prompting India to resume crude oil** imports from the Latin American nation.

Prelims Takeaway

- OPEC

Impact of US Sanctions

- **RIL and Nayara Energy (NEL) previously imported Venezuelan** crude until US sanctions in 2019 led to a halt in oil imports from Venezuela.
- **Venezuela was India's fifth-largest oil supplier in 2019**, providing nearly 16 million tonnes of crude.

Easing of US Sanctions

- In October, the **US eases sanctions on Venezuela's oil sector**, allowing oil exports without limitations for six months.
- **Venezuela, an OPEC member** with the world's largest proven oil reserves, offers discounts to Chinese refiners

Global Oil Market Dynamics

- **India, as the world's third-largest consumer of crude oil**, depends on imports for over 85% of its requirements.
- Amid oil market volatility, India diversifies its oil sources, including **increased imports of Russian crude after the Ukraine invasion** in February 2022.

Industry Impact and Projections

- Industry watchers anticipate that **Indian imports from Venezuela may impact Chinese refiners**, as Reliance's entry weakens China's influence over Venezuelan oil flows.

11. Navy Chief: Centre to decide on scaling down military presence in Maldives - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- Navy Chief Admiral emphasises **India's close cooperation with Maldives** amid discussions on the potential scaling down of Indian military personnel in the key island nation.

Prelims Takeaway

- Atma nirbhar

India-Maldives Relations

- **India has significant assets deployed in Maldives**, providing assistance over the last five years, including medical evacuations and maritime surveillance.
- Any decision to scale down personnel in Maldives is **contingent on instructions from the Central Government**.

Maldives' Request for Withdrawal

- **Maldives formally requested the withdrawal** of Indian military personnel earlier this month.
- Admiral stresses the government's decision-making role, underlining India's close ties with **Maldives in training and participation in naval events**.

Chinese Presence in the Indian Ocean Region (IOR)

- **China's presence in the IOR** for economic activities and highlights India's vigilance in monitoring regional activities.
- **The Navy maintains surveillance of extra-regional** forces and their intentions in the Indo-Pacific.

Naval Operations and Challenges

- Indian Navy sustains a high operational tempo with missions **encompassing military, diplomatic, constabulary, and benign roles**.
- **Challenges in the Indo-Pacific region** include disputes with conflict potential and issues like IUU fishing, drug trafficking, piracy, illegal migration, and robbery.

India-US Naval Partnership

- **India and the US have a longstanding naval partnership**, participating in exercises like Malabar and signing defense agreements.
- **High interoperability achieved in joint exercises** involving ships, submarines, aircraft, and aircraft carriers.

Future Navy Plans and Commitments

- **The Navy commits to being fully "atma nirbhar"** (self-reliant) by 2047 in capabilities, capacities, and concepts.

12. T.N. Governor cannot refer re-enacted Bills to President, says SC - The Hindu/ Governor can't send re-adopted Bill to President after withholding assent: SC - Indian Express

Relevance: Constitution of India —historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

News:

- The Tamil Nadu government recently **criticised the TN Governor** in the Supreme Court **for referring 10 Bills to the President after initially withholding assent**.
- The Supreme Court had earlier issued notice regarding the **delay in consent to the Bills**.

Prelims Takeaway

- Article 200
- Governor
- Supreme Court

Governor's Actions and Criticism

- The Governor, having initially withheld assent, **referred re-passed Bills to the President**.
- The Tamil Nadu government accused the Governor of "**constitutional obstinacy**" and **criticised the delay in Bills' approval**.

Legal Arguments

- The Chief Justice of India states that **once the Governor withholds assent, he must send the Bills back** to the Assembly for reconsideration.
- The Chief Justice cited an earlier judgement, emphasising that **the Governor cannot stultify the Bills once re-passed by the Assembly**.

Article 200 of Indian Constitution

- It outlines the **process for a Bill passed by the Legislative Assembly of a State to be presented to the Governor for assent**.

- The Governor may **either assent, withhold assent or reserve the Bill for consideration by the President.**
- He may also **return the Bill with a message requesting reconsideration** by the House or Houses.

Governor's Defense

- The Attorney General argues that the Governor had **only withheld assent and had not technically sent the Bills back** for reconsideration.
- Suggests that the Governor exercised the option under **Article 200 to refer to the President.**

13. Guidelines out against 'dark patterns' that mislead buyers - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Central Consumer Protection Authority (CCPA) recently **issued guidelines to prevent and regulate dark patterns.**
- Dark patterns are **deceptive tactics** used by online platforms **to mislead customers and influence their choices.**

Prelims Takeaway
<ul style="list-style-type: none"> • Dark Patterns • Central Consumer Protection Authority

Definition of Dark Patterns

- The guidelines **define dark patterns as**
 - any practices or deceptive design pattern using user interface or user experience interactions on any platform that is designed to mislead or trick users to do something they originally did not intend or want to do
 - Includes subverting or impairing the consumer autonomy, decision making or choice, amounting to misleading advertisement or unfair trade practice or violation of consumer rights.
- **List 13 specified dark patterns.**

Specified Dark Patterns

<ul style="list-style-type: none"> • False Urgency: Falsely implying urgency or scarcity to mislead users into immediate actions. • Basket Sneaking: Inclusion of additional items at checkout without user consent, increasing the total payable amount. (Exception: Free samples, complimentary services etc.) • Confirm Shaming: Creating fear, shame, or guilt to nudge users into specific actions, leading to purchases or continued subscriptions for commercial gains. • Forced Action: Compelling users to take actions requiring additional purchases, subscriptions, sign-ups, or sharing personal information beyond their original intent. • Subscription Trap: Making cancellation of paid subscriptions complex or impossible; hiding cancellation options; forcing payment details for free subscriptions; providing ambiguous cancellation instructions. • Interface Interference: Design elements manipulating the user interface to highlight specific information and obscure relevant details, misdirecting user actions. 	<ul style="list-style-type: none"> • Bait and Switch: Advertising a particular outcome based on user actions but deceptively serving an alternate outcome. • Drip Pricing: Revealing price elements surreptitiously; charging a higher amount post-confirmation; advertising a free product or service without disclosing in-app purchase requirements. • Disguised Advertisement: Posing advertisements as other content (user-generated, news articles, false ads) to blend with the interface and trick users into clicking. • Nagging: Repeated and persistent interactions disrupting and annoying users to effectuate transactions and make commercial gains, unless explicitly permitted. • Trick Question: Deliberate use of confusing or vague language to misguide users, leading to desired actions or specific responses. • SaaS Billing: Generating and collecting payments from consumers on a recurring basis in a SaaS business model, exploiting positive acquisition loops surreptitiously. • Rogue Malwares: Using ransomware to mislead users into believing a virus exists, convincing them to pay for a fake malware removal tool that installs malware on their computer.
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Applicability and Prohibition

- Guidelines will apply to **all platforms offering goods or services in India, advertisers, and sellers.**
- **Prohibits engaging in dark pattern practices,** as outlined in the guidelines.

Changes in the Final Guidelines

- The final guidelines **expanded the list of specified dark patterns from 10 to 13.**
- Reflects **concerns about practices** such as false urgency, subscription traps, and disguised advertisements.

14. Highest cases of sexual violence make Delhi most unsafe for women - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- **The National Crime Records Bureau (NCRB)** annual report reveals that **Delhi**, for the third consecutive year, is the **most unsafe** metropolitan city for women in India.

Prelims Takeaway

- The National Crime Records Bureau

Key Points

- The city reported an alarming average of three rape cases daily, **with a total of 14,158 crimes against women in 2022**, the highest among 19 metropolitan cities.

Details of Crimes

- The NCRB data indicates 1,204 reported rape cases, **3,909 incidents of kidnapping or abduction of women**, and 129 cases of dowry deaths.

Police Challenges and Efforts

- Most **incidents involve known individuals**, making prevention difficult.
- The police have **focused on awareness campaigns**, educating on safe and unsafe situations, particularly in schools and colleges.
- **Self-defense training camps** for women have been conducted, with efforts to convert complaints into FIRs.
- The rise in reported cases is seen as a positive sign, indicating **increased awareness and reporting.**

Overall Crime Trends in Delhi

- **The report notes an increase in crime against senior citizens** and a doubling of cybercrime cases in 2022, rising from 345 to 685.
- **The city reported 501 murders, 106 cases of human trafficking**, with a notable disproportion – all of whom were recovered.

Concerns and Police Perspective

- There is concern over **Delhi's crime statistics** and the challenges faced by law enforcement.
- The police assert that **increased reporting reflects efforts to combat crime**, emphasising ongoing initiatives and the importance of community awareness.

15. After COVID break, Centre approves fourth phase roll-out of GIAN scheme - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- The Ministry of Education is set to resume the **fourth phase of the Global Initiative of Academic Networks (GIAN)**
- The program, **aimed at bringing distinguished scholars worldwide to teach at Indian universities**, faced a temporary halt during the COVID-19 pandemic.

Prelims Takeaway

- National Institute of Educational Planning and Administration

Key Points

Financial Investment and Notable Scholars

- The Central government has invested a substantial ₹126 crore in **supporting foreign faculty's travel and honorarium.**

Evaluation and Recommendation for Continuation

- **The National Institute of Educational Planning and Administration (NIEPA)** has **recommended** the continuation of GIAN after evaluating the scheme's impact.

Distribution of Courses and Concerns

- **Approximately 39% of courses took place at IIT campuses**, while State Universities had a lower share.
- **Efforts are urged to encourage** renowned faculty visits to smaller colleges for exposure to high-quality lecturership in State universities.

Embracing Online Learning and Future Plans

- In the upcoming phase, **the Ministry of Education insists on video recording** and webcasting of courses, aiming to create a repository of GIAN lectures accessible to universities across India.
- This move aligns with the intention to **use these lectures as teaching and assessment tools** in an online consortium for students and teachers across multiple universities.

16. One-third of all 2022 suicides were of daily wage earners, farmers, says NCRB report - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- **The National Crime Records Bureau's (NCRB) Accidental Deaths and Suicides in India (ADSI) 2022 report** reveals that India recorded over 1.7 lakh suicides in the year.

- Nearly one-third attributed to daily wage earners, agricultural laborers, and farmers.

Key Points

- The report sheds light on the **prevalence of suicides across different states** and categories of individuals.

Crimes Against Scheduled Castes and Scheduled Tribes

- The Crime in India report highlights an **overall increase in crimes** and atrocities against Scheduled Castes (SC) and Scheduled Tribes (ST) persons
 - Specific attention to states like Rajasthan, Madhya Pradesh, Chhattisgarh, and Telangana. Mizoram saw an unexpected rise in cases compared to the previous year.

Offences Against the State

- The report indicates a marginal increase in cases of **offences against the State in 2022**
 - It includes a 25% rise in cases registered under the Unlawful Activities Prevention Act (UAPA).
- However, **sedition cases under the Indian Penal Code** saw a notable decline, possibly influenced by the Supreme Court's decision in May 2022.

Suicide Data and Regional Trends

- Maharashtra, Tamil Nadu, Madhya Pradesh, Karnataka, Kerala, and Telangana **reported the highest numbers of suicides in 2022**.
- The data indicates that self-employed individuals, salaried professionals, and unemployed persons also **contributed significantly to suicide rates**.
- Over 12,000 **student suicides were reported**.

Demographic Insights into Suicides

- The ADSI report reveals that among approximately 48,000 women who died by suicide, over **52% were homemakers, followed by students and daily wage earners**.
- **Marriage-related issues**, particularly dowry-related concerns, were noted as significant contributors to suicides among women.

Common Causes of Suicides

- The most common causes for suicides in 2022 were identified as **"family problems" and "illness,"** accounting for nearly half of all reported suicides.
- Other contributing factors included **"drug abuse," "alcohol addiction," and "marriage-related issues,"** with dowry-related concerns notably affecting women

Prelims Takeaway

- Unlawful Activities Prevention Act (UAPA).

17. RS passes Post Office Bill; parties oppose 'free hand' to officers - The Hindu/ RS passes Post Office Bill, Vaishnav allays Opp concerns on interception - Indian Express

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- The Rajya Sabha has **approved the Post Office Bill**, aiming to modernize and regulate all services provided by post offices
- It replaced the **125-year-old Indian Post Office Act** that primarily focused on mail delivery.

Prelims Takeaway

- Post Office Bill

Key Points

- **The new bill covers a range of services**, including savings accounts, government benefit transfers, and insurance schemes.

Minister's Perspective

- The Minister of Communications, introduced the bill, **highlighting the transformation of the institution** from mail delivery to comprehensive service delivery.
- He emphasised **the revival of the post office system**, citing the opening of 5,000 post offices under the NDA government and ongoing plans for an additional 5,746.
- The old Act specified the **services provided by the Post Office, such as delivering postal articles and money orders**
- The new bill allows the **central government to prescribe the services** to be offered by the Post Office.
- The **Director General of Postal Services, may make regulations** regarding various activities necessary for providing postal services.

18. 'India, U.S. can work through differences constructively' - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- Following the recent indictment linking an **Indian government official to an assassination plot**, high-level meetings between the U.S. and India took place in New Delhi.
- The visit by the U.S. Principal Deputy National Security Adviser **aimed to address challenges and strengthen the relationship between the two nations.**

Prelims Takeaway

- International Solar Alliance

Key Points

Acknowledgment of Challenges

- The White House confirmed that the indictment was discussed during his visit, recognizing **India's establishment of a Committee of Enquiry to investigate the matter.**
 - Despite ongoing difficulties, both sides emphasised their ability to overcome challenges.

Importance of the Visit

- **Meetings with key Indian officials**, including External Affairs Minister underscored the significance of the visit.
- The discussions covered **various aspects, including technology**, highlighting the importance given by India to the diplomatic engagement.

History of the Relationship

- The U.S. has emerged as **India's biggest trading partner in 2022-23** on account of increasing economic ties between the two countries.
- The **United States welcomed** India joining the **UN Security Council in 2021** for a two-year term and supports a reformed UN Security Council that includes India as a permanent member.
- In 2021, the **United States joined the International Solar Alliance** headquartered in India, and in 2022 the United States Agency for International Development (USAID).
- The meetings aimed at elevating the bilateral strategic partnership, expanding **collaboration in technology areas, and easing regulations for high-tech collaborations.**

- The discussions covered **biotechnology, critical minerals, digital connectivity, advanced materials**, and the transfer of technology.

19. Centre open to policy on transfer of High Court judges, says Law Minister - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- **The Lok Sabha discussed the Advocates (Amendment) Bill, 2023**, which was recently passed in the lower house.

Prelims Takeaway

- Collegium System

Key Points

Policy on Transfer of High Court Judges

- The central government is open to formulating a **policy on the transfer of high court judges**.

Collegium System and Judicial Appointments

- The **Collegium system recommends the appointment**, elevation, and transfer of judges.
- **No judge can undergo these processes** without the recommendation of the Collegium.

Advocates (Amendment) Bill, 2023

- The Bill, **already passed in the Rajya Sabha during the Monsoon Session**, focuses on regulating the legal profession through a single act.
- It aims to **address issues related to touts who procure clients for legal practitioners**.
- The Bill **empowers high courts and district judges** to frame and publish lists of such touts.

Call for Enhanced Punishment

- Some members expressed concerns about the **prescribed punishment for touts in the Advocates (Amendment) Bill**, deeming it insufficient.
- There were calls for **enhancing the penalties to effectively deter** the activities of touts in the legal system.

20. How many availed Sec 6A of Citizenship Act: SC to Govt - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- Chief Justice question to the **Centre regarding citizenship under Section 6A** of the Citizenship Act.

Prelims Takeaway

- Citizenship Act

Key Points

Petitions Challenging Section 6A

- Ongoing **legal proceedings** involving petitions challenging the **validity of Section 6A**.

Historical Connection of Section 6A

- Chief Justice's reference to the historical connection of **Section 6A with India's role in the creation of Bangladesh during the war**.
- Parliament's view that **immigration covered by Section 6A is not merely illegal** but tied to humanitarian aspects and atrocities in East Pakistan.
- It created a **special provision for Assam** by which persons who entered between January 1, 1966, and March 25, 1971
 - Residing in the state, upon being detected as foreigners, will be allowed to register
- Upon registration, **such a person will have the same rights and obligations** as a citizen of India
 - But will not be entitled to be included in any electoral roll for a period of 10 years.

- **Foreigners who had entered Assam before January 1, 1966**, and been “ordinarily resident” in the State
 - They would have all the rights and obligations of Indian citizens including the right to vote.

21. India announces \$250 mn line of credit to Kenya in agri sector - Indian Express

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

Prelims Takeaway

- Announcement of a **\$250 million line of credit by India to Kenya** for the modernization of its agricultural sector.
- Agreement was signed between the Indian **Prime Minister and Kenyan President to enhance cooperation in various sectors.**

- Lines of Credit

Key Points

Key Agreements and Vision Document

- Five pacts were signed covering areas such as **sports, education, and digital solutions.**
- Unveiling of a **joint vision document to enhance maritime engagement** in the Indian Ocean region.
- There was **discussion on cooperation in defense, trade, energy, digital public infrastructure, and healthcare.**

Line of Credit for Agricultural Modernization

- PM announcement of a **\$250 million line of credit for the modernization of Kenya's agricultural sector.**
- **Kenyan offer of land for farming** to Indian companies under a cooperative model.

Invitation for Indian Investments

- Kenyan President **invites Indian companies to invest in various sectors**, including agriculture, manufacturing, pharmaceuticals, health, green energy, and green mobility.

Appreciation for India's Support

- Kenya expresses **gratitude for India's concessional Lines of Credit for energy, textiles, and small and medium-sized enterprises (SMEs).**
- The recent MoU between **Goa Shipyard Ltd and Kenya Shipyard Ltd in defense** cooperation was concluded.

22. 114 seats, migrant quota cleared for J&K Assembly - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation

News:

Prelims Takeaway

- **Lok Sabha approves the Jammu and Kashmir Reorganisation (Amendment) Bill, 2023**, and the Jammu and Kashmir Reservation (Amendment) Bill, 2023.

- J&K

Key Points

- The former **aims to reserve seats in the upcoming 114-seat J&K Assembly** for Kashmiri migrants, those displaced from Pakistan-occupied Kashmir (PoK), and Scheduled Tribes.

Bills Overview:

- **The Reorganisation Bill increases J&K Assembly seats from 107 to 114**, with nine reserved for Scheduled Tribes.
- It **empowers the Lieutenant-Governor to nominate members**, including representation for Kashmiri migrants and those from PoK.
- The **Reservation Bill amends the J&K Reservation Act, 2004**
 - Replacing "weak and underprivileged classes" with "other backward classes" as declared by the Union Territory.

Making changes

A look at the J&K Reorganisation (Amendment) Bill and the J&K Reservation (Amendment) Bill

- The Reorganisation Bill increases the total number of seats in the J&K Assembly to 114 from 107

- Nine seats are reserved for the Scheduled Tribes for the first time

- It also empowers the Lieutenant-Governor to nominate three members to the Assembly - two members from the Kashmiri migrant



Point of view: Home Minister Amit Shah speaks in the Lok Sabha on Wednesday. PTI

community, with one nominee being a woman, and one member from among the people from PoK who took refuge in India following the wars with Pakistan in 1947, 1965 and 1971

- The Reservation Bill seeks to replace the term "weak and underprivileged classes (social castes)" in the J&K Reservation Act, 2004 to "other backward classes"

23. India reminds Myanmar to return to 'federal democracy' - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- India emphasises the **return to federal democracy in Myanmar** as conflict intensifies between armed resistance groups and the Myanmar military
- Discussions cover various issues, including the border situation, **security, trade, commerce, connectivity, and the status of bilateral development** projects in Myanmar.

Prelims Takeaway

- Map based question

Indian Support for Transition

- India reaffirms its support for **Myanmar's transition towards a federal democracy**, as stated in a press note from the Ministry of External Affairs.
- **Myanmar's military faces challenges from armed insurgents**, leading to its withdrawal from several townships.
- **Thousands of Myanmarese nationals**, including former military personnel, **seek refuge in India**, prompting deep concern from the Ministry of External Affairs.
- **Security situation, border management, and concerns** related to transnational crimes are key topics during the discussion.
- India expresses **continued support for people-centric socio-economic developmental** projects
 - Emphasizing connectivity Rakhine State Development Programme, and Border Area Development Programme for the benefit of Myanmar's people.

24. Panel working on guidelines on seizure of personal digital devices, Centre tells SC - The Hindu

Relevance: Science and Technology- developments and their applications and effects in everyday life.

News:

- The Centre requests **additional time to formulate guidelines** for the search and seizure of electronic devices, such as phones and laptops, by investigative agencies.

Prelims Takeaway

- Digital India Act, 2023

Key Points

Setting Up a Committee

- Additional Solicitor General informs the bench that a **committee is being established to develop the guidelines.**

- **The government assures the court that the guidelines will be released soon** and welcomes suggestions from the petitioners.

Judicial Inquiry into Delay

- The bench questions the delay, emphasizing that the **matter has been pending for over two years since the government** received notice in March 2021.
- Justice Kaul urges the **law officer to expedite the process** and expresses the need for a resolution.

Digital India Act, 2023

- This proactive move by the **Ministry of Electronics and Information Technology (MeitY)** aligns with India's ambitious 'Digital India' initiative.

Objective

- **To formulate evolvable rules that are consistent** with the changing trends in technologies
- It can be **updated according to the needs of the country's digital infrastructure**.
- To offer an **easily accessible adjudicatory mechanism** for online civil and criminal offences.
- To deliver **timely remedies to citizens**, resolve cyber disputes, and enforce the rule of law on the internet.

25. Ministry of Panchayati Raj launched Geographic Information System application "Gram Manchitra" to encourage the Spatial Planning by the Gram Panchayat - PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- The Ministry of Panchayati Raj launches GIS application "**Gram Manchitra**" to promote spatial planning by Gram Panchayats.

Prelims Takeaway

- Gram Manchitra

Key Points

Gram Manchitra Application

- **Gram Manchitra is a Geographic Information System (GIS)** application providing a unified GeoSpatial platform.
- Facilitates visualization of developmental works, **supporting Gram Panchayat Development Plan (GPDP)**.

mActionSoft Mobile Solution

- mActionSoft, a **mobile-based solution**, introduced to capture photos with Geo-Tags (GPS Coordinates) for works with assets as output.
- **Geo-tagging done at three stages:** before, during, and after work completion.
- Enhances the repository of information on various works related to natural resource **management, water harvesting, sanitation, agriculture, etc.**

Geo-Tagging of Assets

- **Assets created under finance commission funds** are geotagged with photographs by Panchayats.
- GIS data of geotagged assets visualised on the **Gram Manchitra application, improving developmental work visualization**.

Planning Tools in Gram Manchitra

- Gram Manchitra offers planning tools utilising **GIS technology for realistic and achievable development plans**.
- Tools include identifying potential **project sites, asset tracking, estimating project costs, and assessing project impact**.
- Emphasises the tools' **role in aiding Gram Panchayat officials** in the preparation of development plans.

26. Panchayat Development Index will help in comparing Panchayats in their progress of development goals across nine themes as well as in composite PDI score - PIB

Relevance: Polity

News:

- Recently, the Union Minister of State for Panchayati Raj informed Lok Sabha about the **Panchayat Development Index**.

Panchayat Development Index (PDI)

- PDI is a **multi-domain and multi-sectoral index** that is intended to be used to assess the **overall holistic development, performance and progress of panchayats**.
- It is a tool for **evaluating and measuring the progress** made by grassroots institutions in **achieving localised SDGs**.

Thematic Scores

- Thematic scores**, obtained through PDI, allow for the assessment of Panchayats' progress **across nine themes of localized SDGs**.
 - poverty free and enhanced livelihood in village
 - healthy village
 - child friendly village
 - women friendly village
 - water sufficient village
 - clean and green village
 - village with self-sufficient infrastructure
 - socially just and socially secured villages
 - village with good governance

Ranks

- The Index ranks panchayats on the basis of scores and **categorises them into four grades**.
 - Scores under 40 percent fall in grade D
 - 40-60 percent in grade C
 - 60-75 percent in grade B
 - 75 to 90 percent in category A
 - Those scoring above 90 percent are categorised as A+

Knowledge Sharing Initiatives

- The Ministry has **implemented various knowledge-sharing initiatives** to enhance awareness of PDI among stakeholders.
- State-level workshops**, audio-visual films, learning modules and other methods are employed to disseminate information on the **significance and institutionalisation of PDI**.

National Panchayats Award (NPA)

- Under the revamped Rashtriya Gram Swaraj Abhiyan (RGSA), the ministry **incentivizes best-performing Panchayats** through the **National Panchayats Award (NPA)**.
- This award **assesses their performance in attaining SDGs**, promoting positive competition among Panchayats.

Prelims Takeaway

- Panchayat Development Index (PDI)
- National Panchayats Award (NPA)

27. SC asks Centre to give details of inflow of 'illegal' migrants - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Supreme Court, expressed concerns over the perceived impact of an "**unlimited influx**" of **illegal migrants** from Bangladesh on India's demographics and resources.

Prelims Takeaway

- 1951 UN Convention on the Status of Refugees

Key Points**Details of Section 6A**

- **Section 6A categorises immigration** from Bangladesh into three periods.
 - Those entering before January 1, 1966, were deemed Indian citizens.
 - Those between January 1, 1966, and March 25, 1971, could be registered under conditions.
 - Those entering after March 25, 1971, were considered illegal and subject to deportation.

Illegal Migrants Vs Refugee**Illegal Migrants**

- The **foreign nationals** who enter the country **without valid travel documents** are treated as illegal migrants.

Refugee

- The word refugee pertains to any person who is **outside their country of origin** and unable or unwilling to return owing to a well-founded fear of persecution

Reason

- Fear of persecution for reasons of **race, religion, nationality**, membership of a particular **social group or political opinion**.
- It is defined under the **1951 UN Convention on the Status of Refugees** and the subsequent 1967 Protocol
- **India is not a signatory** to the 1951 UN Convention relating to the Status of Refugees and the 1967 Protocol thereon.
- **Stateless persons** may also be refugees in this sense, where country of origin (citizenship) is understood as 'country of former habitual residence'.

28. Russia, Saudi urge OPEC+ powers to join oil cuts after Putin-MbS meet - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora

News:

- **The Russian President and the Saudi Crown met in Riyadh** to discuss various issues, including energy cooperation.
- The joint statement released after their talks emphasised **the successful efforts of OPEC+** in stabilising global oil markets.

Prelims Takeaway

- OPEC+

Key Points**Call for OPEC+ Unity**

- The leaders called for all **OPEC+ members to join/agree/adhere to the recent agreement** on voluntary oil output cuts.
- Messaging to OPEC+ Members:
- The explicit **call to "join" the cuts is seen as a message to OPEC+** members, particularly those who have not cut or not cut enough.

Iran's Exclusion

- Iran, not part of the cuts, is **looking to boost oil production** despite U.S. sanctions.
- OPEC+ Discord and Market Impact:
- The **OPEC+ meeting faced delays and disagreements**, leading to concerns within the oil market.
- The joint efforts by **Russia and Saudi Arabia aim to address these concerns**, ensuring stability and preventing further drops in oil prices.

29. EU tells China 'differences' must be addressed; Italy pulls out of BRI pact - The Hindu/ Only major Western nation to join, Italy leaves China's Belt and Road Initiative - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora

News:

- **Italy** has officially communicated to China its **decision to withdraw from the Belt and Road Initiative (BRI)**

Prelims Takeaway

- Belt and Road Initiative

Key Points

Italy's BRI Participation

- In 2019, **Italy became the first major Western nation to join the BRI**,
 - Despite concerns from the United States about China gaining control over sensitive technologies and vital infrastructure.

Expiration of 2019 Accord

- The **2019 agreement** between Italy and China under the BRI is **set to expire in March 2024**.

G7 Presidency in 2024

- Italy, despite leaving the BRI, is set to **assume the presidency of the G7** in 2024.
- This adds a diplomatic dimension to **Italy's relations with China and other G7 nations**.

30. Reservation policy need not be followed, merit must be sole criterion for appointment of law officers: HC - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Madras High Court, in a recent verdict, emphasized that **the rule of reservation need not be applied** in the appointment of law officers.

Prelims Takeaway

- 16(4) of the Constitution

Key Points

- The court asserted that **merit should be the primary criterion** for such appointments
 - Because of the professional nature of the relationship between the government and law officers.

Legal Background

- Law officers engaged by the government **do not hold civil posts**, Article **16(4) of the Constitution**, relating to reservations, is not applicable.

Court's Ruling

- The court emphasised that the **government's duty to protect public interest** mandates the engagement of the most competent and meritorious lawyers.
- Therefore, **the appointment process should prioritise merit**, and reservations need not be applied.

Transparency in Selection

- The court stressed that the **methodology for selecting law officers should be transparent**.

31. UGC nod soon for short-term courses - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- **Higher education institutions (HEIs)** will soon have the freedom to introduce **short-term, credit-linked skill development certificate courses** of three to six months.
- Recently, the **University Grants Commission (UGC)** approved the guidelines for the HEIs to start such courses.

Prelims Takeaway

- University Grants Commission (UGC)

Eligibility and Offerings

- Open to individuals who have cleared the senior secondary exam (10+2) and are **eligible for admission to any undergraduate program** offered by the institution.
- A **total of 29 courses are included** in the approval, and institutions can offer them if they possess the **necessary infrastructure and training capacity**.

Course Structure and Credits

- Each short-term course, spanning any stream, must consist of a **minimum of 12 credits and a maximum of 30 credits**, with a strong emphasis on **practical learning**.
- The curriculum development is encouraged in **collaboration with relevant sector skill councils**, accredited bodies, institutions, and industry partners.

Limitations and Participation

- Candidates are allowed to enroll in a **maximum of two courses** during their degree/diploma programs.
- While institutions may determine how they conduct theory classes, **hands-on training** is mandated to occur in an **industry setting or workshop**.

Assessments and Certification

- HEIs will be responsible for conducting assessments for these courses.
- **Joint certification** is also possible when the course is offered with an **industry partner, council or professional body**.

32. 6% of cough syrup samples fail export quality test - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- Recent data from the CDSCO, shows that **at least 6% of cough syrup samples** from 54 Indian manufacturers **failed a mandatory quality test for export** until October this year.
- The CDSCO has **made testing before export mandatory**.
- The Central Drugs Standard Control Organisation (CDSCO) **oversees pharmaceuticals, cosmetics and medical devices**.

Prelims Takeaway

- Central Drugs Standard Control Organisation (CDSCO)
- Generic Medicines

Global Pharmaceutical Hub

- According to the Union Health Minister, **India is the 'pharmacy of the world'**.
- India is a **global leader in generic medicines** and **commands a 20% share in global supply by volume**.
- India supplies **100 countries with vaccines** and **150 countries with medicines of various kinds**.
- India's pharmaceutical sector **contributes 1.72% to GDP**, with an **industry worth \$50 billion**, over half from exports.

Export Quality Screening

- **Screening of medicines** bound for the export market **began earlier this year after quality concerns** were raised about cough syrups exported from India.
- Gambia, Uzbekistan, Cameroon and the **World Health Organisation (WHO)** raised alarms after **reported deaths in children** who had consumed these drugs.
- The government responded by issuing a **list of labs for mandatory pre-export testing**.

Contamination Issues

- Indian manufactured syrups were reported to be contaminated with **glycol and ethylene glycol**.
 - These are toxic substances that can sometimes be fatal, especially for children.
- Government data shows **failures in quality tests**, with 51 out of 385 samples in Gujarat and 29 out of 502 samples in Ghaziabad not meeting standards.

Government Warning

The Health Minister warned against compromising quality and **advocated for a zero-tolerance policy**.

He urged the pharma industry to **establish a self-regulatory body** to monitor product quality.

33. Private Bill seeks power for Assemblies to remove Governors - The Hindu

Relevance: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

News:

- There was **discussion in Rajya Sabha on a private member's Bill to amend Constitution**, moved by Communist Party of India (Marxist) Member of Parliament
- The Bill sought to provide powers for **State Assemblies to recall Governors**.

Prelims Takeaway
Governors

Key Points

- Members emphasise **the need for a system to fix the accountability of Governors**.

Proposed Amendments to Constitution

Election Process

- **Governors to be elected by an electoral college** comprising Legislative Assemblies and elected members of local bodies.

Term Limit

- Suggests a **fixed five-year term for Governors**, allowing resignation by writing to the Speaker, and removal through a two-thirds majority resolution by the Legislative Assembly.

Federal Rights

- **Parliament's intervention is deemed necessary** to safeguard the federal rights of States.

Governors as Political Agents

- **Accusations that Governors** are acting as political agents of the ruling party at the Centre.

34. Freebie politics will take a toll on economy: Dhankhar -The Hindu

Relevance: Statutory, regulatory and various quasi-judicial bodies.

News:

- Vice President of India address on **Human Rights Day on the occasion of 75th anniversary** of the Universal Declaration of Human Rights.

Prelims Takeaway
Article 19

Key Points

- He emphasizes that 'Amrit Kaal' has become our 'Gaurav Kaal' -- primarily due to the blossoming of human rights and values.
- He said that empowerment of pockets by fiscal grant only increases dependence.
- The politics of so called freebies for which we see a mad race distort expenditure priorities

Amnesty International in its India 2022 report

- It noted that arbitrary arrests, prolonged detentions, unlawful attacks using digital technologies as major concerns **faced by minority groups, human rights defenders, dissenters and critics of the Union government**.

National Human Rights Commission

- The National Human Rights Commission (NHRC) of India was established in 1993.
- The statute under which it is established is the Protection of Human Rights Act (PHRA), 1993.
- The Act provides for the establishment of State Human Rights Commissions.
- Human Rights as Incorporated in Indian Laws:
- The Indian Constitution incorporated several provisions of human rights in the Indian Constitution.
- Part III of Fundamental Rights from Article 14 to 32.
- Articles 14 to 18 of the Constitution guarantee the right to equality to every citizen of India.
- Article 19 deals with freedom of speech and expression and **Article 21** provides **Right to life and liberty**.

35. Cases of human trafficking victims being forced to commit cybercrimes on the rise -The Hindu

Relevance: Important International institutions, agencies and fora- their structure, mandate.

News:

Prelims Takeaway

- **Interpol's Operation Storm Makers II** reveals expansion of **human trafficking-fueled fraud schemes** Interpol Operation'
- **Indian enforcement agencies** actively participate in the **international exercise**

Key Points**Types of Fraud Schemes Uncovered**

- **Fake cryptocurrency investments**, fraudulent work-from-home offers, lottery, and online gambling scams
- **Operation results in 281 arrests globally** on charges including human trafficking, passport forgery, corruption, telecommunications fraud, and sexual exploitation

Indian Case Highlights Cyber Fraud in Human Trafficking

- Telangana police register a **case of human trafficking linked to cyber fraud**
- **Victim forced to participate in online fraud** schemes in southeast Asia under inhuman conditions

Global Scope and UN Human Rights Office Report

- Growing trend previously **highlighted by Interpol in southeast Asia**
- UN report underscores **serious violations faced by victims, ranging from threats to safety to torture and human rights abuses**
- **Scam syndicates generate** billions of dollars in annual revenues
- **Majority of victims are men**, but women and adolescents are also targeted
- **Observations on specific cases**, such as Ugandans taken to Dubai and Myanmar for fraud operations

Interpol Operation's Impact on Rescues

- **Operation leads to the rescue of victims globally**, including a 13-year-old boy from Bangladesh in India
- Collaboration between **Interpol National Central Bureaus and law enforcement agencies** in 27 countries.

36. Cauvery basin lost nearly 12,850 sq. km of green cover' -The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- Recent paper by scientists at the Indian Institute of Science (IISc), Bengaluru **highlights loss of natural vegetation in the Cauvery basin from 1965 to 2016**

Prelims Takeaway

Cauvery river

Key Points**Extent of Loss and State-wise Distribution**

- Nearly 12,850 sq. km of land in the **Cauvery basin lost natural vegetation**
- **Karnataka accounts for three-fourths of the lost cover**, while Tamil Nadu's share is around one-fifth

Reduction in Vegetation Cover

- Natural vegetation cover **decreased by around 46% over the 50-year period**
- **Reduction in dense vegetation by 35%** (6,123 sq. km) and degraded vegetation by 63% (6,727 sq. km)

Adverse Changes in Specific Areas

- **Adverse impact on forest cover in Brahmagiri Wildlife Sanctuary**, Bandipur National Park, Nagarhole National Park, and Cauvery Wildlife Sanctuary
 - Example: Bannerghatta National Park faced anthropogenic pressure, resulting in a decrease in moist deciduous forest area
- **Increase in irrigated area in Tamil Nadu and Karnataka**, leading to higher water demand
- **Dominant activity in 73.5% of the catchment:** agriculture and horticulture

Identified Problems in the Basin

- **"Inappropriate" cropping patterns**, inefficient water use, multi-season water-intensive crops
- **"Unsustainable" mining of river sand** and decline in community participation in watershed management

Recommendations for Remedial Action

- **Integrated management of the catchment** with a system of natural resources
- **Restrictions on large-scale water-intensive cash crops**, monoculture, and groundwater over-exploitation
- **Enrichment of the catchment with native species**, promotion of organic farming
- **Setting up effluent treatment plants** and ensuring zero discharge from industries

37. Switzerland, Norway Ministers arriving for dialogue on trade -The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- The Trade Ministers from **Switzerland** and **Norway** visit India.
- This development with **Nordic countries** is in the background of many economic developments on bilateral, regional and global groupings.

Prelims Takeaway

Early Harvest Agreement
BTIA
CEPA
EFTA

EFTA and India

- India-EFTA negotiations may find a breakthrough.
- The four-nation grouping i.e. **Iceland, Liechtenstein, Norway and Switzerland** has already signed 30 free trade agreements (FTAs) with other countries.
- It has ongoing negotiations with India, Thailand, Malaysia, Vietnam, Kosovo and the South American MERCOSUR.

India and Switzerland

- There is a quest for **TEPA** and **Bilateral Investment Treaty** between India and Switzerland
- Prime Minister Narendra Modi also met with President of the Swiss Confederation Alain Berset on the sidelines of the **CoP28 Climate Summit** in Dubai on December 1.

Key issues of Talks

- cutting down **trade tariffs**
- **mobility** of services
- opening **market access** for companies on both sides.
- **High tariffs** of India.
- **high-value-added products** as machine tools, advanced chemicals and pharmaceuticals, Swiss chocolate, Norwegian and Icelandic fish.

Rules of Origin

- Bilateral Trade and Investment Agreement (**BTIA**) with European Union.

Other Pending Economic Issues of India

- **Early Harvest Agreement** with Australia is not finalized.
- The Comprehensive Economic Partnership Agreement (**CEPA**) with Canada is still pending.
- **Market access** for U.K. legal and financial service firms to India.

38. Renaming Ayushman Bharat health facilities may cost Punjab ₹1,800 cr. - The Hindu

Relevance: Issues and challenges pertaining to the federal structure

News :

- Punjab has renamed Ayushman Bharat Health and Wellness Centres as 'AAP clinics'.
- This has led to federal tussle between Centre and States.

Prelims Takeaway

Ayushman Bharat Program

Cost of Tussle to Punjab

- The Union government has withheld **National Health Mission** grants to the State to the tune of **₹621 crore**.
- The Union government will withhold more than **₹1,800 crore** under a separate scheme to provide **capital investment assistance** to States unless Punjab is prepared to comply with its branding rules.

- The Ayushman Bharat Health and Wellness Centre scheme is a centrally sponsored scheme (CSS), meaning that it is funded by both **Centre and State** in a **60:40 ratio**.

Branding violations

- The Punjab government had provided an “**undertaking**” on **July 5, 2023**, regarding full compliance with CSS branding guidelines.
- However, the Union Ministry of Health and Family Welfare has reported a “**violation**” of these guidelines with respect to the Ayushman Bharat centres.
- The Punjab Government was expected to send the report on it by September 2023 but this never happened.

Capital Investment Proposals

- These proposals were given by the Centre Government to the **Punjab Government**.
- The scheme offers State governments a **50-year interest-free loan** up to ₹1.3 lakh crore during **2023-24** in a bid to provide a boost capital spending by States.

39. J&K parties anxious ahead of Supreme Court verdict on Article 370 -The Hindu

Relevance: Issues and challenges pertaining to the federal structure

News :

- The verdict on abrogation of **Article 370** is going to be announced soon.
- The verdict is being seen as a link to the establishment of **Constitutional Identity**.

Prelims Takeaway

Article 370

Developments before the Judgment

- Kashmir netizens face action over social media posts ahead of Supreme Court’s verdict on Article 370
- There are previous SC judgments that “Article 370 has attained finality”.
- There is apprehension of house arrest of leaders of Jammu and Kashmir.
- The Democratic Progressive Azad Party (DPAP), also expressed hope for a “favorable judgment”.

Article 370

- Article 370 was incorporated into the Indian constitution as a **'temporary provision.'**
- It **exempted** Jammu & Kashmir from certain constitutional provisions, granting the state the authority to formulate its own constitution.
- It placed restrictions on the legislative powers of the Indian Parliament.
- **N Gopalaswami Ayyangar** played a pivotal role in introducing Article 370 into the draft constitution as **Article 306 A**.
- Under Article 370, the Constituent Assembly of Jammu & Kashmir was given the authority to recommend which articles of the Indian Constitution should be applicable to the state.
- This provision allowed for a **tailored approach** in integrating constitutional elements.
- Under the Article, the Jammu & Kashmir Constituent Assembly, empowered to recommend constitutional applicability, was dissolved after drafting the state's constitution.
- **Clause 3 of Article 370** grants the President of India the authority to amend its provisions and scope.

40. President’s actions during State Emergency open to scrutiny: SC - The Hindu

Relevance: Constitution of India —historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

News:

- The Supreme Court recently ruled that the **declaration of a State emergency under Article 356** must have a “**reasonable nexus**” with the subsequent actions of the President.

Prelims TakeawayPresident’s Rule
Article 370

- This decision allows petitioners to **question the President's objective in declaring a State emergency in Jammu and Kashmir** in December 2018.
- Whether the aim was to **ultimately abrogate the special status** of Jammu and Kashmir and **bifurcate the full-fledged State to two union territories**.

Background

- The crisis in Jammu and Kashmir began when the then **Chief Minister Mehbooba Mufti resigned** on June 19, 2018.
- The Governor issued a **proclamation under Section 92** of the Constitution of Jammu and Kashmir on June 20, 2018.
- It entrusted the Governor with the **powers and functions of the State government** "in the event of a failure of the constitutional machinery in the State".
- Subsequently, the **State Legislative Assembly was dissolved** and **President's rule was imposed** on December 19, 2018.

Article 370 Abrogation

- On August 5, 2019, the **President issued the Constitution (Application to Jammu and Kashmir) Order**, applying all Indian Constitution provisions to Jammu and Kashmir.
- **Article 367(4) was added** to replace the term 'Constituent Assembly of the State' in the proviso to Article 370(3) with '**Legislative Assembly of the State.**'
- On the same day, **Parliament abrogated Article 370** and **passed the reorganisation bill**, resulting in the bifurcation of the State into two union territories.

Judicial Scrutiny

- The Chief Justice of India emphasized that the **actions of the President during a State emergency are subject to judicial scrutiny**.
- The onus is on the party challenging these actions to **establish prima facie evidence** of "mala fide or extraneous exercise of power."
- If a prima facie case is established, the onus shifts to the Centre to justify that the exercise of power had a reasonable nexus with the proclaimed objective under Article 356.

41. Local bodies can be allocated a portion of GST collections, says N K Singh - Indian Express

Relevance: Devolution of powers and finances up to local levels and challenges therein

News:

- Recently, the **chairperson of the 15th Finance Commission**, suggested allocating a **percentage of the Goods and Services Tax (GST) to support local municipalities**.
- He emphasized **financial autonomy** and **adherence to constitutional requirements** for the **third tier of governance - local municipalities**.

Urbanization Challenges

- He underscored the rapid pace of urbanization, projecting that **by 2050, half of India's population will reside in urban areas**.
- He raised concerns about the **potential escalation of emissions** and emphasized the **need for institutions to balance environmental and growth compulsions**.

Challenges in Urban Governance

- He highlighted that the **scarcity of resources** faced by the third tier has been **exacerbated by the merging of taxes with the GST**.
- He also noted **deficiencies in implementing amendments** related to urban local bodies and panchayati raj.
- He highlighted the **need for regulatory framework improvements**, including land reforms, digitization of land records, and transparent market practices.

Private Capital for Developmental Banks

Prelims Takeaway	
Goods and Services Tax (GST)	
Urban Local Bodies (ULBs)	
Panchayati Raj Institutions (PRIs)	

- He advocated for efficiently **harnessing private capital for developmental banks** and called for **innovative use of guarantees, hybrid capital and blended finance**.
- Success stories, like the **reduction of slums in cities like Surat and Ahmedabad**, were cited, offering hope for positive urban transformations.

42. TRUTH AND RECONCILIATION COMMISSION - Indian Express

Relevance: Constitution of India —historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

News:

- The Supreme Court of India recently **unanimously upheld the abrogation of Article 370** by the Centre in 2019.
- It affirms that the former state of Jammu and Kashmir no longer holds **special status in the Indian Union**.

Prelims Takeaway

Truth and Reconciliation
Commission
Article 370

Justice Sanjay Kaul's Recommendation

- Justice Sanjay Kaul, in his opinion, proposed the **establishment of a Truth and Reconciliation Commission**.
- **Objective:** To investigate alleged human rights violations by both state and non-state actors in Jammu and Kashmir.
- He emphasized the need for a **dialogue-based approach** rather than a criminal court process.

The Truth and Reconciliation Commission

- Also known as a **truth commission**, it is an official mechanism designed to **acknowledge and reveal past wrongdoings by governments or non-state actors**.
- Priscilla B Hayner **defined a truth commission** as one that
 - is focused on the past, rather than in ongoing events
 - investigates a pattern of events that took place over a period of time
 - engages directly and broadly with the affected population, gathering information on their experiences
 - is a temporary body, with the aim of concluding with a final report
 - is officially authorised or empowered by the state under review”.

Countries with Truth Commissions

- **Several countries** have implemented truth commissions in the past.
- **Notable examples** include South Africa, Australia, Canada, Sri Lanka, and Nepal.
- The Canadian Truth and Reconciliation Commission focused on the **Indian Residential Schools system**.
 - About 150,000 indigenous children were removed from their families and communities to attend residential schools.
- The South Africa's TRC aimed to **uncover human rights violations during the apartheid era**.

43. Lok Sabha passes Bills for women's quota in J&K, Puducherry - The Hindu/LS clears 2 Bills extending women's quota to Puducherry, J-K assemblies - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation

News:

- The Lok Sabha approved two bills to **extend the 33% reservation for women in Parliament and State legislatures**
 - as per the Constitution (106th Amendment) Act.

Prelims Takeaway

- Article 370

Key Point

- The focus was on Union Territories Puducherry and Jammu and Kashmir.

- However, the discussion was dominated by the **recent Supreme Court verdict on the abrogation of Article 370**.

Object and Reasons

- The Bills aim to implement **similar provisions for women's reservation in 2 union territory**
 - **The Legislative Assembly of Jammu and Kashmir** by amending the Jammu and Kashmir Reorganisation Act, 2019
 - And the Legislative Assembly of Puducherry by amending the Government of Union Territories Act, 1963.

Implementation Timeline

- The implementation of the **women's reservation law is contingent** on the next census (likely late 2024)
 - subsequent delimitation exercises in 2026 for redrawing Lok Sabha and Assembly constituencies.
- The quota for women in the **Lok Sabha and Assemblies will continue for 15 years**, with the possibility of extension by Parliament

44. Rajya Sabha passes Bill for appointment of CEC, ECs - The Hindu/ Opposition slams CEC Bill: Against Constitution, SC judgment, EC freedom - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation

News:

- Recently the Rajya Sabha approved the **Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill**
- It marked a significant legislative development in guiding the **appointment of the Chief Election Commissioner (CEC) and Election Commissioners (EC)**.

Prelims Takeaway

- Election Commission

Key Provisions

- The Bill introduces a **clause related to the appointment process**, which was absent in the 1991 Act.
- A **search and selection committee** will now oversee the appointment of the CEC and ECs, replacing the government's unilateral decision-making.
- **Legal protection for CEC and ECs against legal proceedings** related to their duties is incorporated into the legislation.

Amendments and Parity

- The Centre **introduced two official amendments**, aligning the protocol, salaries, and emoluments of the CEC and ECs with those of Supreme Court judges.
- Critics expressed concerns about **bias and asserting that the process was arbitrary, malicious**, and would lead to disastrous consequences.
- The need for **transparency**, as previous appointments lacked a legal framework.

45. Kerala elderly rely on MGNREGS, younger workers opt for higher paying labour: Data - Indian Express

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:**Prelims Takeaway**

- MGNREGA

- **Kerala's high daily wages for unskilled workers are influencing** the age distribution of participants in the Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS).
- The state stands out with a significant percentage of **elderly workers engaged in the program**.

Key Points

- Age Distribution in MGNREGS:
- In Kerala, 28.47% of MGNREGA workers this fiscal year fall in the **age group of 61-80**, while only 1.41% are in the 18-30 age group.
- Nationally, the average for workers above 61 is 12.1%, and **for those under 30, it is 12.02%**.

Wage Discrepancy and Worker Preferences

- The primary deterrent for younger workers in Kerala is the **higher wages offered in the state's unskilled labour market**.
- **Kerala pays the highest daily wages to agricultural laborers**, as per RBI data, at Rs 764, more than double the national average of Rs 345.
- **Unskilled laborers in some Kerala areas** reportedly earn around Rs 900 per day, further dissuading them from opting for MGNREGS, where the daily wage is Rs 330.

State-wise Comparison

- Telangana follows Kerala, with **23.63% of MGNREGS workers aged above 61** this fiscal year.
- Tamil Nadu **ranks third with 18.22%**.

Gender Dynamics

- In Kerala, **women constitute 88% of the MGNREGS workforce**, exceeding the national average of 55%.
- The **Kudumbashree Mission**, a women empowerment program, contributes significantly to the state's female workforce.

Elderly Participation and Dignity

- The Elderly in India Report 2021 notes that **16.5% of Kerala's population consists of senior citizens**.
- Many elderly individuals find dignity in earning under **MGNREGS, aiming for financial independence and security**.

Impact on Work Quality

- The prevalence of **elderly workers has affected the quality of work under MGNREGA**, with challenges in obtaining specific output and increased man days for certain tasks.
- Skill upgradation among elderly workers is **identified as a challenge**.

46. 74% Indians could not afford healthy diet in 2021: report - The Hindu

Relevance: Important International institutions, agencies and fora- their structure, mandate.

News:

- **The Food and Agriculture Organisation (FAO)** of the United Nations released its Regional Overview of Food Security and Nutrition 2023
- It reveals **critical statistics and trends in South Asia**.
- The report emphasised challenges in meeting **Sustainable Development Goals and global nutrition targets**.

Prelims Takeaway

- The Food and Agriculture Organisation

Key Points

Affordability of Healthy Diet

- In 2021, **74.1% of Indians couldn't afford a healthy diet**, a slight improvement from 76.2% in 2020.
- **Pakistan recorded 82.2%**, and Bangladesh faced difficulties with 66.1% of the population unable to access healthy food.

Impact of Rising Food Costs

- The report warned that if **food costs rise without a corresponding increase in income**, more people will struggle to afford a healthy diet.
- The compounding effect of **rising food costs and falling incomes exacerbates the challenge.**

Pandemic and 5Fs Crisis

- The report highlighted the **impact of the COVID-19 pandemic and the "5Fs" crisis** (Food, Feed, Fuel, Fertilisers, and Finance) on the region, causing prolonged effects.
- The Asia-Pacific region still represents **half of the global undernourished population**, with severe food insecurity persisting.

Nutritional Challenges in South Asia

- The region has 370.7 million undernourished people, **accounting for half of the global total.**
- **Stunting affects 31.7% of children under five in India**, while wasting (low weight for height) is highest in the region at 18.7%.
- India's prevalence of childhood **overweight is 2.8%**, and **53% of women aged 15 to 49 suffer from anaemia.**
- **1.6%** of adults in India are **obese.**

Breastfeeding and Low Birthweight

- India has made progress in **exclusive breastfeeding, with a prevalence of 63.7%** among infants 0–5 months, higher than the global average of 47.7%.
- India has the **highest prevalence of low birthweight** in the region at 27.4%.

47. Trade deal with Oman could boost India's economic ties with West Asia, says GTRI - Indian Express

Relevance: effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- **India and Oman are rapidly advancing negotiations for a comprehensive Free Trade Agreement (FTA)**, with officials from the Department of Commerce currently engaged in talks in Muscat.
- **The department has set an internal deadline** to finalise the deal by the end of the month.

Prelims Takeaway

- Comprehensive Economic Partnership Agreement (CEPA)

Background

- **India and the Gulf Cooperation Council (GCC)** have faced challenges initiating negotiations for over a year
 - primarily due to differences in terms of reference, notably with Saudi Arabia.
- Oman, if the **FTA is successful, would be the second GCC member** after the UAE to sign such an agreement with India.

Significance

- The proposed **FTA is expected to enhance economic ties** between India and West Asia.
- **Bilateral trade between India and Oman** has been robust, growing from \$3.15 billion in FY22 to \$4.48 billion in FY23, marking a 42% year-on-year increase.

Previous Agreements

- India and the UAE signed a **Comprehensive Economic Partnership Agreement (CEPA)** in February 2022.
- **The India-UAE agreement** is seen as a model for the potential India-Oman FTA.

Trade Dynamics

- Over 80% of India's goods enter **Oman facing an average 5% import duty, with limited trade barriers.**
- **The Global Trade Research Initiative (GTRI)** suggests that the FTA could lead to a significant increase in Indian exports to Oman by eliminating duties on major products

GTRI Report Insights

- **GTRI highlighted that 83.5%** of India's goods exports to Oman face a 5% import duty.
- The FTA is expected to eliminate this duty on products like **motor gasoline, iron and steel, electronics, machinery, and textiles.**

- About **16.5% of India's exports to Oman are already duty-free** and will not see additional benefits from the FTA.

Strategic and Economic Impact

- The **India-Oman CEPA is not only anticipated to offer economic benefits** through import duty reductions but also holds strategic significance for India's foreign policy.
- The agreement is seen as a **potential gateway for India to foster economic and strategic ties in the Middle East**, a region of critical importance.

48. POMPE DISEASE - Indian Express

Relevance: Health

News:

- Recently, **India's first Pompe disease patient, passed away** at the age of 24 after a prolonged battle with the disease.
- Her father founded the **Organisation for Rare Diseases India (ORDI)** in 2010, the **first NGO in India dedicated to rare diseases**.

Prelims Takeaway

- Pompe Disease
- National Policy for Rare Diseases 2021

Pompe Disease

- Also known as **Glycogen Storage Disease Type II**, it is a **rare genetic disorder** resulting from a **deficiency of the enzyme acid alpha-glucosidase (GAA)**.
- The enzyme is essential for **breaking down glycogen into glucose within cell lysosomes**.
- Prevalence estimates range from **1 in 40,000 to 1 in 300,000 births**, occurring across diverse ethnicities.

Impact on Individuals

- The **severity and onset of Pompe disease symptoms vary**, leading to a spectrum of clinical presentations.
- **Key symptoms** include **progressive muscle weakness affecting mobility**, motor skill delays in children, degenerative impacts on bones, respiratory complications etc.

Diagnosis

- Diagnosing Pompe disease involves a **multi-faceted approach**.
- **Enzyme assays** are conducted to **measure the activity of acid alpha-glucosidase (GAA)**, the deficient enzyme.
- **Genetic testing identifies mutations** in the responsible GAA gene.
- **Clinical evaluations** consider the **patient's symptoms and medical history**.
- **Enzyme tests** on blood or skin cells, along with **genetic analysis**, help accurately identify and confirm the disease, facilitating timely intervention.

Treatment

- Although there is **no cure** for Pompe disease, **Enzyme Replacement Therapy (ERT)** is a standard treatment.
- This involves **infusing the missing enzyme to alleviate glycogen buildup**, aiming to manage symptoms and improve the patient's quality of life.

49. US approved Gene therapies to treat sickle cell disease - The Hindu

Relevance: Health

News:

- The US FDA recently **granted approval for two gene therapies, Casgevy and Lyfgenia, to treat sickle cell disease in patients aged 12 and above**.
- The therapies represent a groundbreaking **application of CRISPR-Cas9** for diseases traditionally treatable only through **bone marrow transplantation**.

Prelims Takeaway

- Casgevy
- Lyfgenia
- Sickle Cell Disease

Mechanisms of Gene Therapies

- Lyfgenia employs a **disabled lentivirus as a vector** to introduce a **new gene for hemoglobin into blood stem cells**.
- Casgevy utilizes the **CRISPR-Cas9 gene-editing tool to disable the BCL11A gene**, which inhibits fetal hemoglobin production in blood stem cells.

- By disabling BCL11A, the therapy **enhances the production of foetal haemoglobin**, mitigating the effects of sickle cell disease or beta thalassemia.

Potential and Limitations

- Both gene therapies **use the patients' own blood cells for gene editing**, expanding the potential patient pool as they don't rely on bone marrow donors.
- However, the treatments are **likely to be expensive**, and only specialized hospitals equipped for the complex procedure will be able to administer them.

Safety Concerns

- There is a **need for ongoing monitoring of safety and efficacy** when using the CRISPR-Cas9 tool.
 - Due to the potential for unintended genetic modifications and associated side effects.
- **Clinical trials**, while showing promising results, were **conducted with a small number of patients and for a limited duration**, necessitating continuous real-world data evaluation.

50. India votes in favour of immediate ceasefire in Gaza by Israel - The Hindu/ India shifts stand, backs UNGA resolution on 'immediate ceasefire' - Indian Express

Relevance: Important International institutions, agencies and fora- their structure, mandate.

News:

- India has **voted in favor of a UN General Assembly (UNGA) resolution** calling for an immediate humanitarian ceasefire and the unconditional release of hostages in the Israel-Hamas conflict

Prelims Takeaway

- UNGA

Key Points

- The **Israel-Hamas war** has been ongoing for over two months.
- **India had previously abstained** from a similar resolution in October.

UNGA Vote

- **The resolution was adopted at an emergency special session** with overwhelming support (153 in favor, 10 against, 23 abstentions).
- Notably, **every Asian country voted** in favor.
- **Austria, Israel, and the US voted against**, while Germany, Hungary, Italy, Ukraine, and the UK abstained.

Resolution Details

- **Introduced by Egypt**, the resolution demanded an immediate humanitarian ceasefire
 - It emphasises compliance with international law and the release of all hostages.
- **The text did not explicitly name Hamas.**
- **Austria and the US** proposed **separate amendments.**
- **India supported both amendments**, but they failed to achieve the required two-thirds majority.
- **The amendments addressed the role of Hamas** in holding hostages and emphasized immediate humanitarian access.

India's Perspective

- **India's Permanent Representative** to the UN, Ambassador Ruchira Kamboj, emphasized the challenge of striking the right balance in this difficult time.

International Community Response

- **India welcomed the adoption of the resolution**, expressing satisfaction that the international community found "common ground" amid the region's challenges.

51. House passes Bill to set up Central tribal university in Telangana - The Hindu/ Rajya Sabha clears Central Universities Bill, repealing of 76 redundant and obsolete laws - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- **Central Universities (Amendment) Bill** passed in rajya sabha establishing a Tribal University in Telangana

Prelims Takeaway

- Koya tribe

Key Points

- The Rajya Sabha approves the **Central Universities (Amendment) Bill**
- **Lok Sabha** had previously **cleared both bills**.

Establishment of Sammakka Sarakka Central Tribal University

- The Central Universities Bill aims to **establish the Sammakka Sarakka Central Tribal University in Telangana**.

Sammakka-Sarakka

- It is also called **Medaram Jatara**, is the second-largest fair in India, after the Kumbh Mela
 - celebrated by the second-largest Tribal Community of Telangana- the Koya tribe for four days.
- It is a **tribal festival honouring the fight of a mother and daughter**, Sammakka and Saralamma, with the reigning rulers against an unjust law.
- It is **celebrated once in two years in the month of “Magha”** (February) on the full moon day.
- **Koya tribe is the largest adivasi tribe of Telangana** and listed as Scheduled Tribe in Telangana.
- The community is spread across **Telugu speaking states of Telangana and Andhra Pradesh**.
- **Koyas popularly call themselves as Dorala Sattam** (Lords group) and Putta Dora (original lords). Koyas call themselves “Koitur” in their dialect, like Gonds.

52. 'Automatic expiry of stay prejudices litigant': Top court reverses its order - Indian Express

Relevance: Structure, organization and functioning of the Executive and the Judiciary—Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

News:

- The Supreme Court **reviewed the implications of its 2018 judgement**, which mandated that **stays granted in civil or criminal cases would automatically lapse after six months**, unless extended by a court.
- A five-judge constitution bench, led by Chief Justice D Y Chandrachud, is **reexamining the correctness of this ruling**.

Prelims Takeaway

- Supreme Court

Key Points

Challenges with Automatic Expiry

- The automatic expiry of stay orders is **criticised for causing prejudice to litigants, irrespective of their conduct**.
- **Litigants may face systemic flaws** beyond their control, leading to the vacating of stays.

Judicial Act vs. Administrative Act

- Chief Justice **emphasises that the vacating of an order of stay** is a judicial act, not an administrative one.

Withdrawal of High Court's Jurisdiction

- Justice raises concerns, **suggesting that the automatic expiry essentially amounts to withdrawing the jurisdiction** of the high court.
- Questions the purpose of having high courts **if such limitations are imposed**.

Distrust in High Court Judges

- **Raises the fundamental question of the relevance of high courts** if their jurisdiction is curtailed.

Reservations on 2018 Judgement

- A three-judge bench, presided by the CJI, **refers the 2018 judgement to a five-judge** constitution bench.

Serious Concerns about Miscarriage of Justice

The three-judge bench **contends that the automatic vacation of stay without the application of judicial mind** may result in a serious miscarriage of justice.

53. Constitute nodal authority for declared foreigners, Gauhati High Court tells Assam govt. - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:**Prelims Takeaway**

- Election Commission

- Gauhati High Court hears a writ petition **challenging a 2017 Foreigners' Tribunal (FT) judgement** declaring him a non-citizen in Assam.
- The central issue is the **rights and entitlements of individuals declared foreigners** during their stay in India, particularly in Assam.

Appointment of Nodal Authority

- Court suggests the **Chief Secretary of Assam appoint a nodal authority** to coordinate inter-departmental actions and liaise with other departments to ensure compliance.
- Nodal authority's responsibilities include **coordinating with the Election Commission** and other Central government departments.

Enforcement Measures

- **If a declared foreigner does not cooperate** or disappears, the court advises taking appropriate legal action, including custody, **to complete the necessary processes.**

Applicability of Rights

- The court specifies that rights (e.g., work, education, shelter, food, health) will apply only to declared foreigners **who incorrectly claimed Indian citizenship earlier.**
- Such rights will **not extend to individuals involved in future migrations** in Assam or elsewhere
 - who will be subjected to laws addressing illegal migrants, potentially including deportation.

54. Madras HC: whether killing of Hindu religious leaders is a terrorist act is debatable - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:**Prelims Takeaway**

- UAPA

- The Madras High Court has said that it is **debatable whether conspiracy to kill religious leaders** fell under the ambit of terrorism under the **Unlawful Activities (Prevention) Act (UAPA).**

Key Points**Question the applicability of UAPA**

- It states that evidence shows a conspiracy to attack religious leaders but doesn't establish **how it qualifies as a terrorist act under Section 15 of UAPA.**

Interpretation of UAPA

- Emphasises that for an **act to fall under Section 15 of UAPA**, it must be done with the intent to:
 - threaten India's unity, integrity, security, economic security, or sovereignty, or with the intent to strike terror in the people.
- **Raises doubts on whether killing Hindu religious leaders** alone can be deemed a terrorist act.

Legal Procedural Issues

- Highlights that any delay in obtaining sanction could be grounds to waive the prohibition **on bail imposed by Section 43 D(5) of the Act.**

Adherence to Procedural Safeguards

- Stresses the importance of **adhering to procedural safeguards** in cases involving severe restrictions on personal liberty.
- **Grants bail, asserting that even if prosecution materials** might lead to conviction, detention pending trial cannot be indefinite.

55. Delisting parties with religious names: 'only House can decide' - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- A PIL was filed seeking **de-registration of political parties with religious, caste, ethnic**, and linguistic connotations.

Prelims Takeaway

- Election Commission

Key Points

- Petitioner argued that such names could prejudice candidates' poll prospects, constituting a **corrupt practice under the Representation of the People Act (RPA), 1951**.

High Court's Response

- HC asserts that the **issue falls within the domain of Parliament**, stating that the court does not decide laws.

Importance of Policies

- It emphasises that **political parties' names alone are not decisive**; their policies must also be considered.

Election Commission's Response

- Election Commission of India (ECI) submits that since 2005, **it has not registered any political party with a name having religious connotations**.
- It points out that parties registered **before 2005 with such names won't lose their registration**.

Previous Legal Stance

- Refers to the Supreme Court's refusal in May to interfere with a **plea seeking to ban political parties with religious connotations in their names**.
- ECI had mentioned that such names **limit electoral appeal to specific groups** and are not beneficial for the concerned party's electoral prospects.
- **ECI reiterates its stance and notes that there's no statutory provision** barring registration of parties with names having religious connotations under the RPA.

56. Anthrax outbreak in South Africa: All you need to know about the infectious disease - India Today

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- The **World Health Organisation (WHO)** has reported a significant **anthrax outbreak in Zambia**, marking an alarming spread of the disease

Prelims Takeaway

- WHO

Key Points

- **First human** cases reported on May 5, 2023.

What is Anthrax

- **Caused by the gram-positive bacteria** *Bacillus anthracis*.
- It affects animals like **cows, sheep, and goats**.
- **Humans can get infected through contact with infected animals** or contaminated animal products.

Symptoms of Anthrax

- Three forms: **cutaneous, gastrointestinal, and inhalational**.
- **Cutaneous:** Itchy bumps developing into black sores, fever, and muscle aches.
- **Gastrointestinal:** Resembles food poisoning, may lead to severe abdominal pain and bloody diarrhea.
- **Inhalational:** Cold-like symptoms progressing to severe respiratory distress and shock.

Diagnosis of Anthrax

- Identifying *Bacillus anthracis* in blood, skin lesions, or respiratory secretions **through laboratory tests**.
 - PCR, ELISA tests used.
- **No specific test for exposure**; public health investigations crucial.

Treatment for Anthrax

- Antibiotics like **ciprofloxacin, doxycycline, or levofloxacin**.
- Early diagnosis **allows cure with antibiotics**.
- **Severe cases may require hospitalisation**, continuous fluid drainage, and mechanical ventilation.
- **Vaccines available for both livestock and humans**, with human vaccines reserved for high occupational risk.

WHO's Assessment

- WHO assesses the risk of **further spread within Zambia as high**.
- It emphasises the need for **continued vigilance and preventive measures**.

57. After troop removal demand, Maldives says ending pact with India on water survey - Indian Express

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- Maldives President decides **not to renew the hydrography agreement with India**.

Prelims Takeaway

- hydrography agreement

Key Points

- Agreement, signed in 2019, **allowed India to conduct a hydrographic survey of Maldivian waters**, studying reefs, lagoons, coastlines, ocean currents, and tide levels.

Notification to India

- **India was informed of Maldives' decision** not to proceed with the hydrography agreement.
- **Decision seen as part of Muizzu's policy shift**, focusing on improving Maldivian military capabilities for survey operations.
- Future hydrography **works to be carried out under 100% Maldivian management** with only Maldivians privy to the information.

Shift in Foreign Policy

- **Muizzu's government shifts from the 'India First' policy**, choosing Turkey as the first foreign destination.
- **Previous Maldivian Presidents** traditionally chose India as **their first foreign stop after entering office**.

Indian Military Presence

- The Maldives has **two helicopters and an aircraft provided by India** for emergency evacuations and disaster relief.
- **77 Indian military personnel** operate these platforms in the Maldives.

58. Urgent need to control use of e-cigarettes, says WHO - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- The **WHO** recently declared that **e-cigarettes are not proven effective for quitting tobacco use** at the population level.
- Instead, alarming evidence indicates **adverse population health effects**, prompting an urgent call for control measures.

Prelims Takeaway

- e-Cigarettes
- Prohibition of Electronic Cigarette Act (PECA)
- World Health Organisation

e-Cigarettes

- These are **battery powered devices** that work by **heating a liquid into an aerosol** that the user inhales and exhales.

- The e-cigarette liquid typically contains **nicotine, propylene glycol, glycerin**, flavourings and other chemicals.

Concerns for Children and Non-Smokers

- The WHO Director-General emphasized the **urgent need to protect children and non-smokers**.
- He cited evidence of **early recruitment and nicotine addiction** in young users.
- It urged countries to **implement strict measures to prevent uptake**, especially among children and young people.

Global Market and Regulations

- E-cigarettes have been **aggressively marketed to young people** globally, with **34 countries banning their sale**.
- Inconsistencies exist, as **88 countries lack a minimum age for e-cigarette purchases**, and **74 countries have no regulations** for these products.
- **India**, for example, considers the **possession of e-cigarettes a violation** under the **Prohibition of Electronic Cigarette Act (PECA) 2019**.

Impact on Youth

- Studies show that **brief exposure to e-cigarette content** on social media **increases the intention to use** these products.
- Young e-cigarette users are nearly **three times more likely to use traditional cigarettes** later.
- WHO highlighted alarming rates of **e-cigarette use among 13 to 15 year olds**.

Health Risks and Addictiveness

- E-cigarettes with nicotine are deemed **highly addictive and harmful to health**.
- While the long-term effects are not fully understood, they **generate toxic substances linked to cancer, heart and lung disorders**.
- The use of e-cigarettes can **impact brain development** and lead to **learning disorders** in young people.
- It can also adversely **affect foetal development** in pregnant women.

Exposure to emissions also poses risks to bystanders.

59. Maldives will not renew agreement for joint hydrographic survey with India: top official - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- **Maldives Rejects Renewal of Hydrographic Surveying MoU** with India

Prelims Takeaway

- **Greater Male Connectivity Project**

Key Points

- The Maldivian Cabinet has **decided not to renew a 2019 Memorandum of Understanding (MoU)** with India for hydrographic surveying.

Background of Hydrographic Surveys

- The 2019 agreement facilitated joint hydrographic surveys by the **Maldives National Defence Force (MNDF) and the Indian Navy** in 2021, 2022, and 2023.
- **Surveys aimed to update navigational charts** and electronic charts, enhancing navigational safety and supporting the Blue Economy of the Maldives.

India-Maldives relation

- India provides the **largest number of training** opportunities for Maldivian National Defence Force (MNDF), meeting around 70% of their defense training requirements.
- **A drug detoxification and rehabilitation centre** in Addu built with Indian assistance.
- In August 2021, Afcons, an Indian company, signed a contract for the **largest-ever infrastructure project in Maldives** which is the Greater Male Connectivity Project (GMCP).

- The **India-Maldives relationship** suffered a setback when Maldives entered into a **Free-Trade Agreement (FTA) with China** in 2017

60. ICT import duty: India challenges WTO panel ruling in favour of EU - Indian Express

Relevance: Effects of liberalisation on the economy, changes in industrial policy and their effects on industrial growth.

News:

Prelims Takeaway

- Settlement talks between **India and the EU on the ICT** (Information and Communication Technology) **import duty case have broken down**
- New Delhi took the matter to the appellate body, the **World Trade Organisation's highest court for dispute resolution.**

- WTO

Key Points

- Brussels had dragged **New Delhi into WTO's dispute settlement mechanism in 2019**
 - Challenging its levy of import duty on a wide range of ICT products
 - On the grounds that the duty was inconsistent with global trade norms and was hurting €600 million of its tech exports to India.
- During the negotiations, the **EU was seeking customs duty concessions** on certain goods, which was not acceptable to India as it violates WTO rules.
- These concessions can only be **given in a free trade agreement**
- **India has imposed higher duties on ICT** products as it looks to boost the manufacturing of electronic products with the help of the production-linked incentive scheme.
- The current strategy has also paid off as **India's electronic products have been on the rise even** as broader goods exports have declined during the current fiscal.
- However, amid the current deadlock over the **appointment of judges at WTO's appellate body**, a decision on the ongoing India-EU dispute could take years.
- **Several disputes are already pending with this body** and reforms to address the issue are expected to be taken up during the WTO's 13th Ministerial Conference in February next year.

61. India, UK working on mobility regime for service sector workers under FTA: Official - Indian Express

Relevance: Effects of liberalization on the economy, changes in industrial policy and their effects on industrial growth.

News:

Prelims Takeaway

- The **United Kingdom (UK) is not keen on providing easier mobility norms** for India's services industry
 - a demand that New Delhi is seeking as part of the proposed Foreign Trade Agreement (FTA) between the two nations.

- Tariff Rate Quotas

Key Points

- **India wants easier visa norms for its companies** in the services sector that function out of Britain, the UK has been reluctant given migration concerns.
- The UK, on the other hand, is worried about easing visa restrictions, **since it could lead to more migration.**
- Elaborating on outstanding issues, the official said that **India is mulling Tariff Rate Quotas (TRQ) to meet the UK's demand** for a reduction in import duties on electric vehicles from Britain as part of the trade deal.

- A TRQ allows a lower tariff rate on imports of a given product up to a specified quantity.
- New Delhi is said to be considering a concessional tariff of 30 percent on 2,500 electric vehicles imported annually from the UK priced above \$80,000.

62. School of happiness to take root in Assam - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- A first-of-its-kind school for imparting lessons on **humanity and societal happiness** will take root in **Assam's Bodoland Territorial Region (BTR)** at the dawn of 2024.

Prelims Takeaway

- Bodoland

Key Points

- The project would be **initiated after a year of planning by the Bodoland** Territorial Council (BTC), which administers the BTR formed under the Sixth Schedule of the Constitution.
- The BTR areas have had a **history of extremism resulting in ethnic conflicts**, especially between the Bodos and migrant Muslims, and between the Bodos and Adivasis.
- "The objective was to instil in youth and community leaders the **human values for co-existence in a region** and country inhabited by people of diverse faiths, cultures, languages, and ethnicity

Peace volunteers

- The school of happiness had its genesis in a pilot project called **Bodoland Happiness Mission introduced almost a year ago**.
- Each district has one such strategically located centre.
- Some of the 'peace volunteers' said the training helped them **look beyond their community-specific boundaries**.

63. Aadhaar-based consent for children to go online - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Union Ministry of Electronics and IT (MeitY) is gearing up to **discuss and implement data protection rules** in accordance with the Digital Personal Data Protection Act

Prelims Takeaway

- Aadhaar

Key Points

- The rules aim to address **key concerns in online services**, particularly regarding age verification for children and notification procedures for data breaches.
- MeitY has scheduled **closed-door consultations with industry stakeholders** on December 19 to discuss and finalize the proposed rules.

Age Verification for Children

- **Objective:** Ensure verifiable parental consent for individuals under 18 accessing online platforms.

Methods Proposed

- **Aadhaar-Based Authentication**
- Parents can add their children's Aadhaar details to the **DigiLocker app**.
- Platforms can authenticate a user's age through a simple yes/no response from the **Aadhaar database without revealing user details**.
- Electronic Token System:
- **Industry-developed consent** managers accept a user's government ID.
- **Tokenizes the ID** into an encrypted format, sharing only age and name parameters with the platform.
- Approval from the government **required for implementation**.

Exemptions from Parental Consent and Age Gating

- Certain entities, such as **healthcare and educational institutions, may be exempted**.
- **Limited exemptions based on specific purposes**, e.g., a transport company processing a child's data for offering transport services.

Data Breach Notification Measures

- Two-stage notification process proposed for entities **in case of a data breach**.
- **Penalties under the Data Protection Act** may reach up to Rs 250 crore for insufficient safeguards against data breaches.

Government Institutions and Personal Data Usage

- Proposal to mandate government institutions to issue notices to citizens when using their **personal data for welfare services, subsidies, or similar activities**.

64. Optimistic on trade agreement ahead of elections: Swiss, Norway Ministers - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- Trade Ministers of Switzerland and Norway express uncertainty about the conclusion timeline for **India's Trade and Economic Partnership Agreement (TEPA) with the European Free Trade Association (EFTA)**

Prelims Takeaway

- European Free Trade Association

Key Points

- It comprises Iceland, **Liechtenstein, Norway, and Switzerland**.
- The ministers hope to **resolve differences in the coming months** before India's election process begins.
- **Intellectual Property Rights (IPRs), patents, and copyrights** are crucial concerns, labeled a "bread and butter" issue by the EFTA ministers.

Complexities and Priorities

- **Negotiations started 15 years ago** and are part of various simultaneous trade partnership agreements, posing challenges ahead of India's election slowdown.
- **EFTA negotiations may be affected**, but priorities are up to the Indian side.
- **EFTA countries, not part of the EU**, have completed 30 FTAs and are concurrently negotiating with other regions.

Optimism and Progress

- **Both sides acknowledge the need to expedite TEPA** talks, with frequent visits indicating commitment.
- **Timeline pushed back due to new trade lines** and continuing IPR concerns.
- **Mutual benefits stressed**, highlighting India's significant market size.
- **EFTA nations, ranked eighth** globally in merchandise trade, generate over 2,00,000 jobs in India.
- **Norway looks to engage with India** on critical mineral mining, vital for India's renewable energy plans.

65. Modi flags off Viksit Bharat Sankalp Yatra in 5 States, says focus will be on smaller cities - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- **Prime Minister underscores the crucial role of hundreds of small cities** in the development of India, highlighting their significance in the nation's progress.

Prelims Takeaway

- PM Suraksha Bima Yojana

Focus on Tier-2 and Tier-3 Cities

- Development historically limited to major cities; emphasis now on **tier-2 and tier-3 cities**.
- **AMRUT Mission and Smart City Mission** contribute to upgrading basic facilities, impacting ease of living and doing business.

Viksit Bharat Sankalp Yatra (VBSY) Campaign

- Interaction with **VBSY beneficiaries via video conferencing**.

- PM flags off VBSY campaign in **Rajasthan, Madhya Pradesh, Chhattisgarh, Telangana, and Mizoram.**
- **Urges newly elected governments** in these states to expand the VBSY initiative rapidly.
- **Highlight of government support during the pandemic**, including financial assistance, free COVID-19 vaccines, and free rations for poor families.
- Assistance worth **lakhs of crores to small businesses.**

Financial Inclusion and Social Security Initiatives

- **Street vendors and hawkers connected** to the banking system.
- Over 50 lakh people benefit from **loans under SVANidhi Yojana.**
- Focus on social security for urban dwellers, with schemes like **Atal Pension Scheme, PM Suraksha Bima Yojana, and Jeevan Jyoti Yojana.**
- Significant progress in modern public transport, with **15 new cities receiving metro services in the past decade.**
- **Acknowledgment of progress** in various sectors contributing to urban and overall development.

66. Assam Rifles plans op changes for deployment on LAC, if required - Indian Express

Relevance: Security challenges and their management in border areas – linkages of organised crime with terrorism.

News:

- The Assam Rifles **is strategizing operational changes** to perform conventional roles along the Line of Actual Control (LAC)
- This in addition to its **traditional counter-insurgency duties** in the Northeast and guarding the India-Myanmar border.

Prelims Takeaway

- Assam Rifles

Key Points

Operational Shift Discussed

- Aims to deploy more than **70% of Assam Rifles soldiers along the LAC in contingencies.**

Assam Rifles Overview

- **Comprises 46 battalions** with a sanctioned strength of over 65,000 troops.
- 20 battalions involved in guarding the **India-Myanmar border.**
- 26 battalions engaged in counter-insurgency roles, **including two in Jammu and Kashmir.**

Focus on LAC and China

- Reflects **India's growing focus on China** and securing the LAC.
- Various measures taken over the past three years to increase vigilance and **strengthen deployment along the LAC.**

Preparations for Conventional War-Fighting

- **Plans to equip Assam Rifles with additional weaponry**, communication equipment, and military vehicles.
- **Procurement includes 81 mm mortars, medium grenade launchers**, night vision goggles, handheld thermal imagers, and ammunition.
- **Soldiers trained regularly with the Army** in various activities, emphasising mine laying and offensive roles.

Technology Intensive Approach

- Plans to make the **force more technology-intensive** over the next few months.
- Focus on **procuring weapons and equipment** in line with the larger focus on China.

Strategic Significance of Northeast

- Director General of Assam Rifles highlights the strategic significance of the **Northeast in India's engagement with Southeast Asia** and the broader Indo-Pacific region.
- Proximity to **China and its role in India's Act East Policy** emphasised.

Historical Involvement and Recent Contributions

- **Assam Rifles troops participated in the 1962 war** and fought the Chinese in Arunachal Pradesh.

- **Contribution during the Galwan valley clashes in 2020**, supporting the Army along the LAC in Arunachal Pradesh and Sikkim.

67. CT scans associated with increased risk of blood cancers - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

Prelims Takeaway

- CT Scans
- Blood Cancer

Even low dose radiation can cause cancer

Children, adolescents and young adults are vulnerable to blood cancer caused by low dose radiation

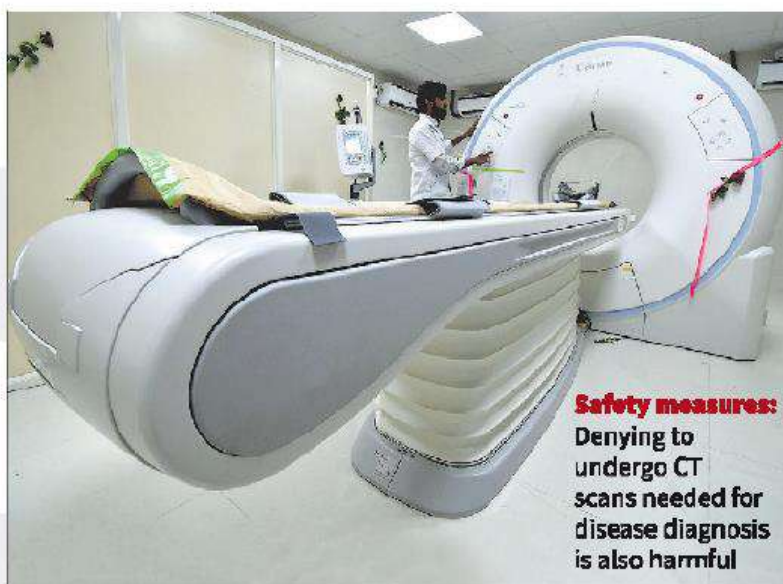
■ Radiation doses at moderate (over 100mGy) to high (over 1 Gy) values are known to cause blood cancers in both children and adults

■ A recent study suggests that even low doses (less than 100 mGy) of radiation have a small probability to cause blood cancer

■ Nearly 9.5 lakh individuals who underwent CT examinations before age 22 years in 276 hospitals in nine European countries were followed up

■ 51% of the cases were younger than 20 years at diagnosis, whereas 88.5% were younger than 30 years

■ A clear association was found between cumulative dose and risk of blood cancer



Safety measures: Denying to undergo CT scans needed for disease diagnosis is also harmful

■ For every 10,000 children undergoing CT examination, one-two children are expected to develop blood cancer in about 12 years

■ The study highlights the need for continued justification of paediatric CT examinations and optimisation of doses

68. Omnibus Telecom Bill in Lok Sabha, legislation to streamline regulation - The Hindu/ Telecom Bill paves way for allocation of satellite spectrum - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

Prelims Takeaway

- Over-the-top Platforms
- Telecom Regulatory Authority of India (TRAI)
- Global mobile personal

News:

- The Union Minister tabled the **Telecommunications Bill, 2023** in Lok Sabha amid sloganeering by opposition in the house.

communication by satellite

Key Points

- The bill empowers the government to **suspend or prohibit use of telecom equipment** from countries or a person as may be notified in case of national security.
- Telecom equipment needs to be **procured from trusted sources** only.
- To protect telecom consumers, the bill proposes that **prior consent** should be taken for **receiving certain messages** such as promotional, advertising, etc.
- The bill proposes to have an **adjudicating mechanism** in place.
- In case of any breach of terms and conditions of the licence, the adjudicating officer should pursue an inquiry and pass an order.
- The bill is also likely to grant powers to the **Telecom Regulatory Authority of India (TRAI)** to **probe predatory pricing** and take required action.
- The bill is likely to **replace three laws viz.**
 - The Indian Telegraph Act, 1885
 - The Indian Wireless Telegraphy Act, 1933
 - The Telegraph Wires (Unlawful Possession) Act, 1950
- Over-the-top (OTT) players or apps**, have been **removed** from the definition of telecommunication services in the bill.
- The government has proposed **administrative allocation of spectrum** for satellite services.
- The global **mobile personal communication by satellite (GMPCS)** has been incorporated under the first schedule,
 - wherein **spectrum will be assigned administratively.**

69. Far fewer CAG audits of Centre tabled in Parliament - The Hindu

Relevance: Appointment to various Constitutional posts, powers, functions and responsibilities of various Constitutional Bodies.

News:

- In 2023, only 18 audits of the Union government by the **Comptroller and Auditor General (CAG)** were tabled in Parliament.
- Declining trend in the number of audits** tabled in Parliament in recent years.

Prelims Takeaway
<ul style="list-style-type: none"> Comptroller and Auditor General Budget

Audit Reports in Parliament: A Decreasing Trend

- Between 2019 and 2023, an **average of 22 audit reports** were **tabled each year**, compared to 40 reports between 2014 and 2018.
- Peak in 2015 with 53 reports**, but four of the last six years witnessed 20 or fewer reports being tabled.

Department-Wise Analysis

- Similar **declining trend** observed across departments, e.g., Railways Department and Civil Department.
- The **Railways Department** experienced a **decrease from 27 to 14 audit reports** in the last five years.
- The **Civil Department** had **34 reports** in the last five years, **down from 42** in the previous period.
- Limited accessibility to Defence Department** reports, possibly due to security concerns.

CAG and IA&AD Staff Reduction

- The Indian Audit and Accounts Department (IA&AD) **staff strength declined** to 41,675 in 2021-22 from the peak of 48,253 in 2013-14.

Budget Allocation Decline

- Budget allocated to the IA&AD as a share of the Union **Budget's total expenditure decreased** to 0.13% in FY24 from 0.19% in FY17.

70. OBC representation in AIIMS faculty low, says House panel - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- **Shortage in OBC representation in faculty** posts in AIIMS Delhi & seven others in different states was observed due to non availability of suitable candidates.

Prelims Takeaway

- Parliamentary Committee
- OBC Reservation

Key Points

- A parliamentary panel has recommended the government make provision for **reservation for OBCs** in admission in **super specialty courses** to
 - Increase availability of qualified faculty in future.
- **The committee on welfare of OBCs** led by BJP Lok Sabha MP in its report presented in Parliament recommends that all possible avenues may be looked into
- As of now there is **reservation for admission** in undergraduate (**MBBS**) and PG courses (**MS/MD**) only in medical educational colleges.
- There is **no reservation for admissions in super speciality courses** in medical educational colleges/institutions.

Eligible candidates from **reserved categories** with higher qualifications are **not available to fill vacant** faculty positions.

71. 'Religious character' of a place of worship can be decided only in a trial, says Allahabad HC - The Hindu

Relevance: Structure, organization and functioning of the Executive and the Judiciary—Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

News:

- Allahabad High Court in the Gyanvapi case order that the **Places of Worship Act, 1991 is not an "absolute bar" on litigants**
- They can **approach courts to define the "religious character"** of any place of worship

Observations of the court

Undefined "Religious Character"

- The High Court emphasised that the **1991 Act lacks a definition for the term "religious character."**
- It clarified that a **place of worship cannot simultaneously have dual religious characters** and that the determination of religious character should be based on trial evidence.

Mandate of the 1991 Act

- the 1991 Act mandates **retaining the religious identity of a place of worship** as of August 15, 1947
- The court referred to **sub-section (3) (d) of Section 4** to argue that if the "conversion" occurred much before the Act's commencement, silence or acquiescence would not bar legal action.

Gyanvapi Case Details

- In the Gyanvapi case, Hindu plaintiffs claim that the **Gyanvapi mosque site belonged to a temple** since Satyuga and was **demolished in 1669**, preceding the 1991 Act.
- They argue that **erecting a mosque afterward** does not change the temple's religious character.

Pending Supreme Court Petitions

- Despite the High Court ruling, several petitions challenging the 1991 Act's provisions are pending in the Supreme Court.

Recent Developments

- In August, **the Supreme Court allowed** the Archaeological Survey of India (ASI) to conduct a **non-invasive investigation** of the Gyanvapi mosque premises.
- In December, **the Court did not stay an Allahabad High Court order** for a court-monitored survey of the Shahi Idgah near the Krishna Janmabhoomi temple in Mathura.

Prelims Takeaway

- Places of Worship Act, 1991
- Gyanvapi mosque
- Religious Character

72. Netanyahu calls Modi to discuss maritime threat in Red Sea - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- The Indian and Israeli Prime Minister held a telephone discussion on the escalating **threats to maritime security in the Red Sea** following the actions of Houthi militants of Yemen.

Prelims Takeaway

- Bab al-Mandab Strait
- Red Sea

Issue over the Red Sea

- The conversation came soon after the **Pentagon announced an international mission to counter the growing number of attacks** against Israel-bound international traffic.
- The **situation in the Bab el-Mandeb Strait has been worrying shipping companies** after several attacks by Houthi rebels on container ships.
- These incidents have prompted several major international companies to hold ships from venturing in the strait that separates Yemen from eastern Africa.
- The United States has called upon the UN Security Council to act against Houthi militants.

Red Sea

- It is **saline** bodies of water
- An inlet of the **Indian Ocean** between Africa and Asia.
- Egypt, Saudi Arabia, Yemen, Sudan, Eritrea and Djibouti** are bordering countries
- It is connected to the Indian ocean in the south through the **Bab el Mandeb strait and the Gulf of Aden**.
- In the north are the Sinai Peninsula, the Gulf of Aqaba, and the Gulf of Suez (leading to the Suez Canal).
- Occupies a part of **Great Rift Valley** (Afro-Arabian Rift Valley).

Bab al-Mandab Strait

- It is a strait that connects the **Red Sea (northwest) with the Gulf of Aden and the Indian Ocean** (southeast).
- It is located between Arabia (northeast) and Africa (southwest).
- It is one of the world's most important seaborne commodity shipping routes, primarily for crude oil and petroleum.
- Yemen** borders it on the Arabian Peninsula, and **Djibouti and Eritrea** border it on the African coast.



73. GST regime brought down prices, says Nirmala as RS returns two taxation Bills - The Hindu/ House nod to raise age limit for GST Appellate Tribunals President, members - Indian Express

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Rajya Sabha recently returned the **Central GST (Second Amendment) Bill, 2023**.
- It proposes an **increase in the age limit** for the President and members of the Goods and Services Tax (GST) Appellate Tribunals.
- The Rajya Sabha also returned the **Provisional Collection of Taxes Bill, 2023**, replacing the outdated **Provisional Collection of Taxes Act, 1931**.
- It seeks to **address customs or excise duties**, with or without changes in tariff classification.

Prelims Takeaway

- Provisional Collection of Taxes Bill, 2023
- Central GST (Second Amendment) Bill, 2023
- Goods and Services Tax (GST) Appellate Tribunals

Background

- The Finance Minister highlighted that the formation of GST Appellate Tribunals **faced legal challenges**, leading to amendments.
- However, the CJI pointed out that these **amendments** did not conform to the **age limits** set by the **Tribunals Reforms Act**, necessitating the current Bill.

Key Changes Proposed

- Increase in the age limit for the **President** of GST Appellate Tribunals from 67 to **70 years**.
- Increase in the age limit for **members** of GST Appellate Tribunals from 65 to **67 years**.
- The adjustment aims to **align the age limits** with those specified in the **Tribunals Reforms Act, 2021**.
- The Bill also permits individuals with a **decade of legal experience** to be considered as **judicial members** of the tribunals, aiming to diversify the expertise pool.

Support and Concerns

- Establishing tribunals could **alleviate the burden on High Courts**, which currently face a significant backlog of approximately 15,000 appeals.
- Considering **chartered accountants**, in addition to lawyers, for **tribunal memberships** has been suggested.
- The Finance Minister acknowledged the **challenges in filling tribunal vacancies**, especially those requiring technical expertise or retired judicial officers.

74. Under new law, doctors face two years of imprisonment for death due to negligence - The Hindu/ Docs thank Govt, but in BNS they can still face criminal cases - Indian Express

Relevance: Structure, organization and functioning of the Executive and the Judiciary—Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

News:

- The amended Bharatiya Nyaya (Second) Sanhita Bill, 2023 (BNSS) **does not grant blanket exemption to doctors in cases of death due to negligence**.
- Instead, it outlines a **specific punishment** for such cases.

Key highlights of the bill

Amendment to Section 106 (1) of the BNSS

- The amended section specifies the punishment for causing death by rash or negligent acts, prescribing a **maximum imprisonment term of five years**.

Prelims Takeaway

- Medical Negligence
- Bharatiya Nyaya (Second) Sanhita Bill, 2023

- However, for **registered medical practitioners performing medical procedures**, the term is reduced to **two years**, with liability for a fine.

Definition of Registered Medical Practitioner

- A definition for a "registered medical practitioner," referring to a medical professional with qualifications recognized under the National Medical Commission Act, 2019,
 - whose name is listed in the National Medical Register or a State Medical Register.

Medical Negligence

- Medical negligence pertains to professional misconduct by a healthcare provider
 - who does not adhere to the expected standards of their profession leading to loss suffered by the seeking medical intervention.
- The loss suffered can be financial consequences, adverse health effects, worsening the patient's condition
 - inflicting emotional trauma, and leaving the patient in a permanent and irreparable state for the remainder of their life.

Landmark Cases:

- **Bolam v. Friern Hospital Management Committee (1957)**
- In this English case this case established the principle that a **medical professional is not necessarily negligent**
 - if their actions align with the practice accepted by a responsible body of medical opinion within their field, even if other experts may disagree.

75. Shri Narayan Rane launches three sub-schemes under the RAMP programme - PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- Union Minister for MSME, Shri Narayan Rane, **launched three sub-schemes under the RAMP programme** to support the MSME sector.

Prelims Takeaway

- MSMEs
- RAMP Programme

MSME Green Investment and Financing for Transformation Scheme (MSME GIFT Scheme)

Objective:

- Aims to **assist MSMEs** in adopting green technology.
- Provides **interest subvention and credit guarantee support** to encourage the adoption of eco-friendly practices.

MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme):

- First-ever government scheme **supporting circular economy projects**.
- It aims to **offer credit subsidies to promote projects** leading to zero emissions by 2070, aligning with MSME sector goals.

MSE Scheme on Online Dispute Resolution for Delayed Payments

- Unique scheme using **modern IT tools and AI to address delayed payments** for Micro and Small Enterprises.
- Synergizes legal support with technology to **streamline dispute resolution**.

Additional Initiatives

MSME – SCIP Programme

- Supports the **commercialization of intellectual property** for MSME innovators.

ZED Scheme

- It **made it free for women-led MSMEs**, with the government guaranteeing 100 percent financial support for certification costs.

Purpose of National MSME Council

- Administrative and functional body of the **World Bank-supported RAMP Programme**.

RAMP Programme Objectives

- Aims to **improve market and credit access, strengthen institutions** and governance
- It enhances **Centre-State linkages, addresses delayed payments**, and promotes green practices in MSMEs.

76. Government aims to set up 17,000 creches across India - The Hindu

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- The Union Women and Child Development Ministry **aims to establish 17,000 creches in Anganwadi centers** across the country out of which 5,222 have been approved to date.

Prelims Takeaway

- National Creche Scheme
- Anganwadi

Key Points

- These initiatives are being taken under the '**Palna**' scheme.

Objective

- To address the **urgent need for quality day-care facilities/creches** for the children of working women
- by providing a safe and secure environment for the nutritional, health and cognitive development of the children
- It will help enable more women to take up gainful employment amongst all socio-economic groups both in the organized and unorganized sector, irrespective of their employment status.
- According to government data, **participation of women in the workforce has increased to 37% in 2022.**
- As of March 31, 2021, 13.87 lakh **Anganwadi and mini-Anganwadi centers** are operational across the country.

The National Crèche Scheme

- It is a **centrally sponsored scheme** being implemented by the Ministry of Women and Child Development.
- The scheme was **earlier named as Rajiv Gandhi National Creche Scheme.**
- It aims to provide day **care facilities to children** (age group of 6 months to 6 years) of working mothers.

The salient features of the National Creche Scheme are as follows

- Daycare Facilities including Sleeping Facilities.
- Early Stimulation for children below 3 years and pre-school Education for 3 to 6 years old children.
- Supplementary Nutrition (to be locally sourced)
- Growth Monitoring
- Health Check-up and Immunization

77. 'Doklam remains a challenge... influx from Myanmar in north Manipur new trend' - Indian Express

Relevance: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

News:

- **Influx of migrants from Myanmar** poses a new challenge.
- Recent intensification of fighting by the **Three Brotherhood Alliance prompts increased migration.**

Prelims Takeaway

- Line of Actual Control (LAC)

Key Points

- Migration expands from **Mizoram to the northern part of Manipur.**
- **Attacks on Myanmar Army camps** result in soldiers crossing the border.
- **Unregulated movement of migrants** poses security challenges, including smuggling.
- Ethnic violence resurgence **grants insurgent groups renewed relevance.**

Doklam Situation

- Doklam remains a persistent **challenge since 2017**.

Biggest Challenge

- Completing planned **infrastructure along the Line of Actual Control (LAC)** remains a major challenge.

Focused Approach

- India focuses on improving infrastructure with long-term plans and streamlined procedures.

Current Projects

- **Construction of roads, helipads, tunnels, and priority development of border villages** underway.

Chinese Infrastructure Development

- The Chinese are heavily **investing in strengthening LAC infrastructure**.
- China creates **model villages for both civilian and military use**.

78. China bans export of rare earth technologies - The Hindu

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- China, the world's top processor of rare earths, **banned the export of technology to extract and separate the strategic metals**, as it overhauled a list of technologies deemed key to national security.

Prelims Takeaway

- Rare earth metal
- Magnetism

Key Highlights

- It also banned the **export of production technology for rare earth metals** and alloy materials as well as technology to prepare some rare earth magnets.
- The decision is made amid efforts by Europe and the United States to reduce their dependence on rare earths supplied by China.
 - China currently dominates 90% of the world's refined output.

Rare earth metal

- Rare earths are a group of **17 metals used to make magnets** for use in electric vehicles, wind turbines and other electronics.'
- These include the **fifteen lanthanides on the periodic table** in addition to scandium and yttrium that show similar physical and chemical properties to the lanthanides.
- The 17 Rare Earths are cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho), lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), promethium (Pm), samarium (Sm), scandium (Sc), terbium (Tb), thulium (Tm), ytterbium (Yb), and yttrium (Y).
- These minerals have unique **magnetic, luminescent, and electrochemical properties**
- They are used in many **modern technologies**, including consumer electronics, computers and networks, communications, national defense etc.
- Even **futuristic technologies** need these REEs.
- China has **mastered the solvent extraction process** to refine the strategic minerals,
- **Western rare earth companies have struggled** to deploy due to technical complexities and pollution concerns.

79. Center exploring one-stop health sector regulator - The Hindu

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- The Central government is exploring setting up a **health sector regulator that will bring private and government health insurance schemes** under its purview

Prelims Takeaway

- Bima Trinity
- 'Insurance for All by 2047'

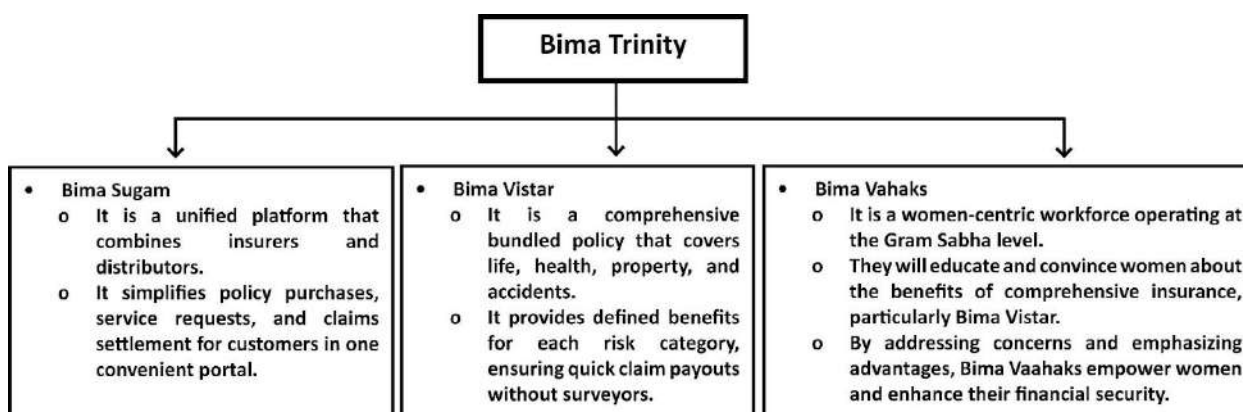
Objective

- **Penetration of private insurance is increasing** at a fast rate and along with government-run insurance, India should soon be covering 70% of the population".

- Doctors' bodies have urged that **private and government insurance be brought under a single regulator.**

'Insurance for All by 2047'

- Under the IRDAI Vision 2047, **the government aims to provide 'Insurance for All by 2047',**
 - Every citizen has appropriate life, health, and property insurance coverage and **every enterprise is supported by appropriate insurance solutions.**
- There is demand to have an **independent agency that can restructure** these schemes including fixing reimbursement rates for various medical procedures on a scientific basis.
- Without this, most hospitals are not coming forward to empanel under these schemes, **depriving extending tertiary care to beneficiaries.**



80. Ministry of Textiles launches "Paat-Mitro" application to facilitate jute farmers - PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- To provide important information about MSP and agronomy to jute farmers, **the Ministry of Textiles launched "Paat-Mitro"** - a mobile application

Prelims Takeaway

- Jute
- Jute-ICARE

Key Points

- In addition to, the **latest agronomic practices like** :
 - Minimum Support Prices (MSP)
 - Jute Gradation Parameters
 - Farmer-centric schemes like 'Jute-ICARE',
 - JCI's Purchase Centers' locations, Procurement Policies are also made available in the app.
- Farmers will also be able to **track the status of their payments for the raw jute sold to JCI** under MSP Operation.
- The 'Jute Symposium' was organized to create awareness and popularize Jute based technical textiles with special emphasis on Jute Geotextiles.

Jute

- Temperature:** Between 25-35°C
- Rainfall:** Around 150-250 cm
- Soil Type:** Well drained alluvial soil.
- India** is the largest producer of jute followed by **Bangladesh and China.**
- However, in terms of acreage and trade, Bangladesh takes the lead accounting for **three-fourth of the global jute exports in comparison to India's 7%.**

- Major jute producing states include **West Bengal, Bihar, Odisha, Assam, Andhra Pradesh, Meghalaya and Tripura.**

81. Ministry holds meet with CMs of northeast States over lag in DevINE scheme - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The **Ministry of Development of North Eastern Region (DoNER)** recently convened a meeting with Chief Ministers of Northeastern States.
- **Objective:** To discuss the implementation of projects under the Prime Minister's Development Initiative for North East Region (PM-DevINE).
- The meeting was prompted by a review from the Prime Minister's Office (PMO) that highlighted the **slow progress of the scheme** despite sufficient funds.

Prelims Takeaway

- PM-DevINE
- GatiShakti

PM-DevINE Scheme

- Announced in the **2022-23 Union Budget**, the scheme aims at the **rapid and holistic development** of the **northeast region**.
- It focuses on **funding infrastructure and social development projects** based on the felt needs of the states, without substituting existing Central and State Schemes.
- It has been granted **100% Central funding**, ensuring that resources are directly allocated to the development initiatives.
- It will be implemented by the **Ministry of Development of North-East Region**.

Objectives of PM-DevINE

- To **fund infrastructure projects** in a cohesive manner in line with the spirit of PM GatiShakti, ensuring seamless connectivity and accessibility across the NER.
- To **support social development projects** that address critical issues and improve the overall quality of life for the region's inhabitants.
- To **create livelihood opportunities** specifically targeting the youth and women of the NER, enabling them to participate actively in the region's development and progress.

82. Japan passes record military budget, eases postwar ban on export of lethal weapons - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- Japan has announced a **significant policy overhaul, loosening arms export restrictions** to allow the shipment of domestically produced missiles and artillery to select countries, including the United States.

Patriot Missiles to the US

- The new measures permit Japan to send Patriot air defense missiles to the United States
 - It marked a departure from its longstanding policy of not allowing exports of deadly weapons.

Defence Spending Increase

- The Japanese cabinet approved a record increase in defense spending for the next year, exceeding 16 percent in 2024.

Focus on Indo-Pacific Security

- The policy shift aims to **strengthen the Japan-US alliance** and enhance security in the wider Indo-Pacific region amid increasing security risks.

Concerns and Motivations

- **Japan's move is prompted by concerns over China's military ambitions**, Russia's actions in Ukraine, and the potential threat to Taiwan.
- **North Korea's missile launches and the prospect of nuclear tests** also contribute to Tokyo's decision to boost defense spending.

Prelims Takeaway

- WWII
- Map based question

Break from Post-WWII Principles

- The reinforcement of strike capability represents a departure from Japan's post-World War II principle of limiting the use of force to self-defense.

Export Rule Changes

- **Japan can now export completed arms products** to countries where patent holders are based, a departure from previous restrictions allowing only component exports.
- **Re-exports** to third countries require **Tokyo's permission**.
 - The developments signify Japan's strategic response to evolving security challenges, **reflecting a departure from its historical defense posture**

83. Cash transfers help Bengal women take financial decisions, says study - The Hindu

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Prelims Takeaway

- Lakshmir Bhandar
- Kanyashree

News:

- A study by Amartya Sen's Pratichi Trust evaluates the impact of **Lakshmir Bhandar, a flagship scheme of the West Bengal government**, focusing on women beneficiaries.

Positive Financial Decision-Making

- Cash incentives from Lakshmir Bhandar have **increased women beneficiaries' ability to make financial decisions**.
- **85.55% of women report** deciding how to spend the money themselves, showcasing a positive impact.

Enhanced Position in the Family

- **Lakshmir Bhandar has elevated the position of women in their families**, with 61.07% acknowledging an improvement.
- **Social groups generally perceive positive effects**, though the study suggests further exploration, particularly regarding Scheduled Tribes (STs).

Lakshmir Bhandar Overview

- Lakshmir Bhandar provides **financial assistance to women aged 25-60** from economically weaker sections.

Policy Implications and Challenges

- Despite positive impacts, the study emphasizes the **need for awareness about persisting challenges** like child marriage and domestic violence.
- **Child marriage remains a challenge** despite schemes like Lakshmir Bhandar and Kanyashree.

Increasing ST Participation

- The study calls for concerted efforts to enhance **ST participation in the scheme**, citing low enrollment compared to their population.
- **Duare Sarkar outreach programs** are suggested to address spatial isolation in tribal settlements.

Pratichi Trust's Role

- Pratichi Trust, founded by Amartya Sen, has conducted studies on various government programs, including Duare Sarkar and the grievance redressal cell in West Bengal.

84. Tribunals cannot direct govt. to frame policy: SC judgment - The Hindu

Relevance: Separation of powers between various organs dispute redressal mechanisms and institutions.

News:**Prelims Takeaway**

- Tribunals
- Writ Jurisdiction

- The Supreme Court recently clarified that **tribunals**, governed by specific legislations, lack the authority to **direct the government to formulate policies**.
- Making policy decisions **falls outside the judiciary's domain**, and tribunals, being **quasi-judicial bodies**, must operate within legislative parameters.

• Separation of Powers	of
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Judicial Authority of AFT

- The clarification arose in the context of the **Armed Forces Tribunal (AFT)** directing the government to establish a policy for filling the post of the Judge Advocate General (Air).
- The AFT, despite having the **powers of a civil court**, does not possess the authority of the Supreme Court or High Courts.

Judicial Authority

- The judgement emphasised that even **High Courts**, under Article 226, face limitations in directing policy creation, especially in matters related to **fundamental rights**.
- The creation or sanctioning of schemes or policies related to **defense personnel services or regularization** is deemed the exclusive prerogative of the government.
- The judgement reaffirms the **separation of powers** and the distinct roles of the judiciary and the executive in matters of policy formulation.

85. With no basic facilities, district courts struggling to conduct hybrid hearings - The Hindu

Relevance: Structure, organization and functioning of the Executive and the Judiciary

News:

- Legal proceedings in Delhi's district courts are facing hindrances due to a **shortage of equipment** for hybrid hearings and infrastructure.
- This is leading to judges conducting **hearings on mobile phones**.

Prelims Takeaway

- Public Interest Litigation (PIL)
- Hybrid Hearing System

Background

- A **PIL** was filed in 2021 addressing the need for **appropriate infrastructure** for smooth functioning of hybrid hearings.
- Despite the Delhi High Court issuing guidelines on hybrid hearings, **deficiencies in equipment persist**.

Hybrid Hearing System

- Hybrid hearings allow one party to **join virtually** while the other is **physically present**.
- The High Court directed district courts to **permit any party to appear physically or via videoconferencing**, but the lack of essential equipment remains a challenge.
- The **deficiency includes** microphones, speakers, cameras and video display units, hindering effective communication.
- Some district courts **lack basic amenities** like Wi-Fi, aggravating the situation.

86. India-ASEAN to rejig 15-year trade pact in early 2024 - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- **India and the ten-member ASEAN** will begin negotiations in February to "modernise" their decade-and-a-half-old **free trade agreement (FTA)**
- new areas such as labour, environment, SMEs and gender are likely to be kept out, sources have said.

Prelims Takeaway

- ASEAN India Trade in Goods Agreement (AITGA)

Key Highlights

- **"There will be a complete re-look** at the entire FTA with the broad objective of bringing down the trade deficit for India.
- New elements such as **product specific rules and trade remedies** will be brought in to make the FTA more efficient

- The first round of negotiations for reviewing the FTA, officially known as the **ASEAN India Trade in Goods Agreement (AITGA)**
- The negotiations will follow a quarterly schedule to **wrap up the exercise by 2025**.
- India has been **long pressing for a review of the AITGA**, which was signed in August 2009 and implemented in January the following year
 - as the pact resulted in disproportionate benefits for ASEAN.
- **Sectors that need propping up** include chemicals and alloys, plastics and rubber, minerals, leather, textiles, gems and jewellery, per an industry analysis.
- **India will also need to make some concessions for the ASEAN** as the review will have to benefit both but the objective of bringing balance has to be central

Revamping AITGA

- Modernising the AITGA will include incorporating **changes in the Rules of Origin (ROO)**
 - It can work in favour of India by increasing market access for some items
 - blocking possible re-routing of goods by China through the ASEAN countries
- ROO are the criteria to **determine the origin of a product** and establish if it qualifies for duty cuts under an FTA.
- **“PSRs will be introduced in the ROO chapter** which can help India have relaxed rules for certain items to increase exports.
- **A chapter on trade remedies** will seek to provide a safety net for domestic industry against unfair trading practices or unforeseen surges in imports of goods

87. Govt. targets documents' saturation in PVTG villages in one week - The Hindu

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- The Union government has set a target of one week to **achieve Aadhaar, caste certificate, and Jan Dhan account saturation** across 15,000 PVTG habitations in 100 districts.

Key Highlights

- The package brings together 11 key interventions already being **implemented by nine Ministries**
- It was pointed out that **several PVTG families in these areas do not have any basic form of documentation**.
- The campaign also intends to produce **awareness material like pamphlets, videos, wall paintings, jingles**.
- These efforts will be **supervised by district-level officers**, who have been assigned one district each.
- **The State-level officers will coordinate** with the respective line departments of their State governments to ensure the project's implementation.

Particularly Vulnerable Tribal Groups (PVTGs)

- In India, **tribal population makes up for 8.6%** of the total population.
- PVTGs are more vulnerable among the tribal groups.
- Due to this factor, **more developed and assertive tribal groups** take a major chunk of the tribal development funds
 - because PVTGs need more funds directed for their development.
- In 1973, the **Dhebar Commission** created **Primitive Tribal Groups (PTGs)** as a separate category, which are less developed among the tribal groups.
- In 2006, the Government of India renamed the PTGs as PVTGs.
- In this context, in 1975, the Government of India initiated to identify the most vulnerable tribal groups as a separate category called PVTGs
- In 1993 a total of **75 PVTGs out of 705 Scheduled Tribes** were identified.
- PVTGs have some basic characteristics

Prelims Takeaway

- Particularly Vulnerable Tribal Groups (PVTGs)
- Jan Dhan account

- They are mostly homogenous, with a small population]
- Relatively physically isolated
- Absence of written language
- Relatively simple technology and a slower rate of change etc.
- Among the **75 listed PVTG's the highest number** are found in Odisha.

88. UNHCR thanks India for taking care 142 Rohingyas intercepted in Andaman - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- The **United Nations High Commissioner for Refugees (UNHCR)** expressed gratitude to Indian authorities at Andaman and Nicobar Islands for taking care of 142 Rohingya refugees

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United Nations High Commissioner for Refugees

- **UNHCR, the UN Refugee Agency**, is an international organisation working to save lives, safeguard the rights and provide a better future for refugees
- **The organisation's target audience** includes refugees, people who are forcibly displaced from their homes, asylum seekers, internally displaced persons and stateless people.
- **The UNHCR was established in 1950** in the wake of the mass displacements caused due to the Second World War in Europe.
- Since then, **it has provided relief to thousands of refugees** and displaced persons in many parts of the world.
- The UNHCR has also won the **Nobel Prize for Peace twice** (1954 and 1981).
- The chief legal document that governs the work of the UNHCR is the **1951 Refugee Convention**.
- The organisation works in 135 countries and in India, **has offices in New Delhi and Chennai**.
- It first established **its presence in India in 1981**.
- The UNHCR is headed by the **High Commissioner for Refugees**.
- Its parent organisation is the **United Nations General Assembly (UNGA)**.

Prelims Takeaway

- United Nations General Assembly (UNGA)
- United Nations High Commissioner for Refugees

89. Women participation in NREGS continues to rise, 59% this fiscal - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- **Women participation** in the Mahatma Gandhi National Rural Employment Guarantee Scheme (**MGNREGS**) was the **highest in 10 financial years**
- the **proportion of women person-days in the total touching 59.25%** till December 24 during the current financial year 2023-24

Key Highlights

- The rates of participation of women in the MGNREGS, **defined as women person-days out of the total in percentage**, stood at 57.47% in 2022-23 and 54.82% in 2021-22.
- The lowest percentage of women participation in the NREGS over the **last 10 financial years was recorded in 2020-21 at 53.19%**.
- The broad trends indicate a steady rise in the women participation in the **rural job guarantee scheme**.
- the southern states like Kerala (89%), Tamil Nadu (86%), Puducherry (87.16%) and Goa (72%) **have recorded women participation rate of over 70%**
- **it has been hovering around 40% or below in northern states** like Uttar Pradesh and Madhya Pradesh over the years.

Prelims Takeaway

- Periodic Labour Force Survey
- Labour Force Participation Rate

- In 2023-24, 5 states/UTs with the lowest women participation rate under NREGS are: **UTs of Jammu and Kashmir (30.47%)**
- An uptick has been reported in 3 of them during the current financial year: **Uttar Pradesh, Madhya Pradesh and Lakshadweep.**

Periodic Labour Force Survey

- As per the Periodic Labour Force Survey (PLFS), published by the **Ministry of Statistics and Programme Implementation**, the female Labour Force Participation Rate has increased in the country in recent years.
- The rise was sharp in rural areas.
- In rural areas, the female Labour Force Participation Rate (LFPR), defined as the percentage of persons in the labour force among the persons in the population, increased to 30.5% in 2022-23 (July-June) from 18.2% in 2017-18.
- The **female unemployment rate has declined to 1.8% in 2022-23** from 3.8% in 2017-18.

90. Iran increasing production of enriched uranium, says IAEA report - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- **Iran has increased the rate** at which it is **producing near weapons grade uranium** in recent weeks

Key Highlights

- Iran had previously slowed down the rate at which it was **enriching uranium to 60% purity.**
- **Uranium enriched at 60% purity** is just a short, technical step away from weapons-grade levels of 90%.
- **Enriching uranium** means **increasing the percentage of uranium-235**, the isotope of uranium that can be used in nuclear fission.

Nuclear energy

- It is a form of energy that is **released from the nucleus, or core, of atoms.**
- Nuclear energy is known for its **high energy density**, meaning that a relatively small amount of nuclear fuel can produce a large amount of energy.
- There are **two primary methods** of harnessing nuclear energy:

Nuclear Fission

- This is the process of **splitting the nucleus of an atom into two smaller nuclei**, releasing a large amount of energy in the process.
- Nuclear power plants use this method, **primarily using uranium-235 or plutonium-239 as fuel.**
- When the nucleus of these **heavy isotopes is bombarded with neutrons**, it becomes **unstable and splits into two or more smaller nuclei**, along with a few neutrons.
- This **chain reaction can release a significant amount of heat**, which is used to generate steam and drive turbines, ultimately producing electricity.

Nuclear Fusion

- This is the process of **combining the nuclei of two light atoms** to form a heavier nucleus.
- This is the process that **powers the sun and other stars.**
 - While it holds great potential for **clean and virtually limitless energy**, it is extremely challenging to achieve controlled nuclear fusion on Earth.

Prelims Takeaway

- Nuclear Fusion
- Nuclear Fission

91. On the occasion of Good Governance Day, Union Minister Dr Jitendra Singh launches the Extended Version of Mission Karmayogi - PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

Prelims Takeaway

- Mission Karmayogi
- VIKAS

- On Good Governance Day, the Union Minister launched the **Extended Version of Mission Karmayogi in New Delhi**.
- The initiative aims to groom civil servants for the future, making them more technology-enabled, innovative, progressive, and transparent.

Key Features Launched

- Three new features were introduced on the iGOT Karmayogi platform:
 - My iGOT
 - Blended Programs
 - Curated Programs
- 12 domain-specific capacity building **e-learning courses were launched**, along with a new blended learning program called VIKAS (Variable & Immersive Karmayogi Advanced Support).

Good Governance Week/Day:

- The Union Government has been celebrating 'Good Governance Week/Day' since 2014 to promote citizen-centric, efficient, and transparent governance.

Details of New Features on Mission Karmayogi

- **My iGOT:** Provides **targeted training courses** addressing individual officers' unique capacity building needs, ensuring personalized learning experiences.
- **Blended Programs:** Integrates traditional offline classroom courses with online components, offering equitable access to training methodologies.
- **Curated Programs:** Designed to cater to diverse learning needs, allowing course providers to curate tailored learning journeys.

Domain-specific Courses and VIKAS

- Twelve domain-specific e-learning courses were **developed for the Department of Personnel and Training (DoPT)**
 - as part of the Annual Capacity Building Plan.

VIKAS is a blended learning program for middle management civil servants in the Central Secretariat, focusing on functional, behavioral, and technological competencies.

92. PM-Kisan beneficiaries dwindling, Govt adds 34 lakh in special drive - Indian Express

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- Number of **PM-Kisan beneficiaries dropping by over 20 per cent** to 8.12 crore now from a peak of 10.47 crore in April-July 2022

Key Highlights

- The government has **added back 34 lakh farmers under the "saturation drive"** since the launch of the Viksit Bharat Sankalp Yatra on November 15.
- With the drop in the number of beneficiaries, **the annual disbursement of funds under the PM-Kisan too declined.**

PM-Kisan

- Under PM-Kisan, eligible farmers' families receive **Rs 6,000 a year in three equal instalments through DBT every four months.**
- The scheme was launched on February 24, 2019, **just ahead of the 2019 Lok Sabha elections.**
- It is a **Central Sector Scheme with 100% funding** from the Government of India.
- It is being implemented by the **Ministry of Agriculture and Farmers Welfare.**
- The entire **responsibility** of identification of beneficiary farmer families **rests with the State / UT Governments.**

Objective:

- **To supplement the financial needs of the Small and Marginal Farmers** in procuring various inputs to ensure proper crop health and appropriate yields

Prelims Takeaway

- PM-Kisan
- Central Sector Scheme

93. UGC releases draft norms on recognition of colleges in India - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- The University Grants Commission (UGC) has **published the draft guidelines on recognition of colleges**.

Key Highlights

- The **higher education regulatory authority** has sought comments from the public on the new guidelines named the “**UGC (Recognition of Colleges under Clause (f) of Section 2 of the UGC Act) Regulations, 2023**”.
- The proposed **guidelines will be applicable to colleges** as defined under the UGC Act.
- The draft guidelines state that a **college should be affiliated to a university** in accordance with the provisions of UGC (Affiliation of Colleges by Universities) Regulations.
- An official communication about the **All India Higher Education Survey code** issued by the Ministry of Education should also be provided to the UGC.
- “All existing Colleges shall have to obtain UGC recognition under Section 2(f) within three years from the date of notification of these Regulations.

University Grants Commission (UGC)

- It came into existence on 28th December, 1953 and became a **statutory body by an Act of Parliament in 1956**, for the coordination, determination and maintenance of standards of teaching, examination and research in university education.
- It also regulates the recognition of **fake universities, autonomous colleges**, deemed to be universities, and distance education institutions.
- The head office of the UGC is located in **New Delhi**.

Prelims Takeaway

- University Grants Commission
- All India Higher Education Survey

94. Hurriyat chief's outfit an unlawful association: Centre - The Hindu

Relevance: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

News:

- The Ministry of Home Affairs (MHA) declared the Muslim League Jammu Kashmir (**Masarat Alam faction**) as an “**unlawful association**” under the anti-terror Unlawful Activities (Prevention) Act (UAPA) for five years.

Unlawful Activities (Prevention) Act (UAPA)

- It was first enacted in 1967 to **deal with secessionist movements** and anti-national activities.
- It was amended several times, most recently in 2019, to include provisions related to **terrorist financing, cyber-terrorism, individual designation**, and seizure of property.
- It empowers the **National Investigation Agency (NIA)** to **investigate** and prosecute cases under UAPA across the country.
- It provides for the **death penalty and life imprisonment** as the highest punishments for terrorist acts.
- It allows for the **detention of suspects without charge or trial for up to 180 days**, and for the denial of bail to the accused unless the court is satisfied that they are not guilty.

Prelims Takeaway

- National Investigation Agency
- Unlawful Activities (Prevention) Act (UAPA)

95. US maintains cold war mindset: China after breakthrough military discussion - Indian Express

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- China's defence ministry criticises the United States**, accusing it of maintaining a “Cold War” mindset and interfering in the Asia Pacific region.

Prelims Takeaway

- Cold War
- New Cold War

- **The U.S. is intensifying its Asia-Pacific deployments**, aiming to maintain hegemony and fuel confrontation.

New cold war

- The **rising tensions between the US and China** have prompted many experts to warn of a new Cold War akin to the Cold War between the US and USSR.
- In 2017, the US National Security Strategy called China as “a revisionist power” seeking “to erode American security and prosperity”
- China has been **proactive in undermining the US hegemony** on multiple fronts.
- **COVID-19 pandemic has further aggravated** the deterioration of ties between the two countries.
- This **new Cold War between China and the United States** is a major geopolitical risk of the 21st century.

Cold War

- The Cold War was a period (1945-1991) of geopolitical **tension between the Soviet Union and its satellite states and the United States** with its allies after World War II.
- Post World War II, the world got divided into two power blocs dominated by two superpowers viz. the Soviet Union and the US.
- The two superpowers were primarily engaged in an ideological war between the **capitalist USA and the communist Soviet Union**.
- The term "Cold" is used because there was **no large-scale fighting directly** between the two sides.

96. Women account for 49% of Ayushman cards, says Ministry - The Hindu

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections

News:

- **Women account for approximately 49% of the total Ayushman cards** created and approximately 48% of total authorised hospital admissions, noted data released by the Health Ministry.

Ayushman Bharat-PMJAY

- PM-JAY is the **world's largest health insurance scheme** fully financed by the government.
- Launched in February 2018, it offers a **sum insured of Rs.5 lakh per family** for secondary care and tertiary care.
- **Health Benefit Packages** covers surgery, medical and day care treatments, cost of medicines and diagnostics.
- It is an entitlement-based scheme that targets the beneficiaries as identified by latest **Socio-Economic Caste Census (SECC) data**.
- The National Health Authority (NHA) has provided flexibility to States/UTs
 - to use non- Socio-Economic Caste Census (SECC) beneficiary family databases with similar socio-economic profiles for tagging against the leftover (unauthenticated) SECC families.

Prelims Takeaway

- Socio-Economic Caste Census
- Ayushman Bharat-PMJAY

97. SC Collegium recommends CJs to five High Courts - The Hindu/ Top Court Collegium recommends names for CJs of five HCs - Indian Express

Relevance: Constitution of India —historical underpinnings, evolution, features, amendments, significant provisions and basic structure.

News:

- The **Supreme Court Collegium** recently recommended the names of **Chief Justices for the High Courts** of Rajasthan, Punjab and Haryana, Gauhati, Jharkhand and Allahabad.

Constitutional Provisions: Article 217 of the Constitution

- It states that the Judge of a High Court shall be **appointed by the President** in consultation with the **Chief Justice of India (CJI), the Governor of the State**.

Prelims Takeaway

- Chief Justice of HC
- The Collegium System
- Third Judges Case, 1998

- In the case of appointment of a Judge other than the Chief Justice of the High Court, the **Chief Justice of the High Court** is consulted.

Consultation Process

- High Court judges are recommended by a **Collegium** comprising the **Chief Justice of the High Court and two senior-most judges**.
- The proposal, however, is **initiated by the Chief Justice of the High Court concerned**.
- The **recommendation is sent to the Chief Minister**, who advises the Governor to send the **proposal to the Union Law Minister**.
- The **Chief Justice of the High Court** is appointed as per the policy of **having Chief Justices from outside the respective States**.

98. In SC, Kerala seeks norms for Governors on reserving Bills - The Hindu

Relevance: Structure, organization and functioning of the Executive and the Judiciary—Ministries and Departments of the Government; pressure groups and formal/informal associations and their role in the Polity.

Prelims Takeaway

- Article 200
- Article 201

News:

- Kerala has moved the Supreme Court seeking to **lay down guidelines for the Governor** in case of reservation of Bills

Key Highlights

- In Supreme Court, Kerala questions **Governor's decision to refer 7 Bills to President**
- Kerala pointed out that Governor Arif Mohammed Khan sat on eight Bills that were passed by the State Legislature even up to three years.
- Later, the Governor sent seven of the eight Bills for the consideration of the President without examining each one of them and giving reasons as to why it was necessary to reserve them.

Article 200

- It prescribes that the **Governor may exercise the option of sending the Bills to the President**, withhold the assent or return it to the Assembly as soon as possible.

Article 201

- It states that when a Bill is reserved for the consideration of the President, **the President may assent to or withhold assent from the Bill**.
- The President may also direct the Governor to return the Bill to the House or Houses of the Legislature of the State for reconsideration.

Recent Instances

- The TN Governor forwarded the **Bill for exemption** from the National Eligibility cum Entrance Test (NEET) to the President after considerable delay.
- In Kerala, the Governor publicly announced that he would **not give assent to the Lokayukta Amendment Bill and the Kerala University Amendment Bill**.

99. Javier Milei writes to BRICS leaders, rejects invite for Argentina to join the grouping - The Hindu

Relevance: Important International institutions, agencies and fora- their structure, mandate.

News:

- Days ahead of formally joining **BRICS**, the **Argentine President** has sent letters to leaders of member nations informing his **withdrawal from the planned entry into the group**.

Prelims Takeaway

- BRICS
- Map based question

Background

- **BRIC term was given by economist Jim O'Neill** in 2001, then at Goldman Sachs Group Inc.
- The main purpose behind the term was to throw a spotlight on the strong economic growth rates in Brazil, Russia, India, and China.
- The term was seen as an optimistic scenario for investors.
- The BRIC club held its first leaders' summit in 2009.

- Later, **South Africa joined the grouping a year later**, adding another continent and the letter "S".
- The bloc announced its expansion in August this year.
- BRICS, generally seen as a **counter to the Western-led global order**, declared to add six new members.
- The announcement of the addition of six nations including **Argentina, Ethiopia, Iran, Saudi Arabia, Egypt, and the United Arab Emirates** was set to take effect from January 1, 2024.
- **Argentina's geopolitical interests match that of America and Israel** and Argentina is not going to join hands with communists like China and Russia.

100. India closing in on lithium deal with Argentina, tapping Australia, Chile - The Hindu

Relevance: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

News:

- The Mines Ministry, through the state-owned **Khanij Bidesh India Ltd (KABIL)**, has entered into a **draft exploration and development agreement with Argentina**

Prelims Takeaway

- Khanij Bidesh India Ltd
- White gold

Key Highlights of agreement

- The Ministry of Mines entered into **agreement with Argentina miner CAMYEN** for possible acquisition and development of five-odd **lithium blocks**.
- The company has also entered into a non-disclosure agreement with **Chilean miner ENAMI** for "possible exploration, extraction, processing and commercialisation" of the mineral
- Incidentally, Latin America nations, primarily **Chile and Argentina, account for 30-35 percent** of the world's supplies.
- Chile, which has 11 per cent of the world's lithium reserves, supplies 26 per cent of the requirements
- Argentina with nearly one-fifth of the global resources supplies about 6 per cent.
- **Australia** is among the other **large lithium producers globally**.
- India has over the last one year upped its search for critical minerals, including lithium.
- The alkaline mineral, also called '**white gold**', is a cornerstone in India's switch to **green energy** thereby reducing its carbon footprints.
- India has put up just lithium blocks for auction – one in **J&K** and another in **Chhattisgarh** - with most of its domestic requirements, across categories like **EVs, lithium-ion battery making, and other energy storage solutions**, being met completely through imports.
- Import bill is pegged at around ₹24,000 crore.

101. PM SVANidhi benefits over 57 lakh street vendors across country: Union Minister Hardeep S Puri - PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- Minister of Housing & Urban Affairs and Petroleum & Natural Gas, inaugurates the **National Street Food Festival 2023**.

Key highlights

- Organized by **the National Association of Street Vendors of India (NASVI)** from December 29 to December 31, 2023, at Jawaharlal Nehru Stadium.

Recognition of Street Vendors and Empowerment

- Minister acknowledges the **vibrant community of street food vendors across 28 states**.
- Highlights the role of the **Prime Minister Street Vendor's AtmaNirbhar Nidhi (PM SVANidhi)** Scheme in empowering street vendors.
- The PM-SVANidhi scheme, launched during the COVID pandemic, **has been a beacon of hope, providing financial assistance and expanding market reach**.

Prelims Takeaway

- PM SVANidhi
- National Association of Street Vendors of India

Significant achievements of the scheme

- **57.83 lakh street vendors benefitted**, 80.77 lakh loans sanctioned, and 76.22 lakh loans worth Rs. 10,058 crores disbursed.

Notable statistics

- **45% of loans received by women street vendors**, 72% of beneficiaries from marginalized sections.

Zero Waste Street Food Festival

- The festival is recognized as the first 'Zero Waste Street Food Festival' in India.

NASVI's Initiatives and Training Programs

- NASVI's efforts were appreciated in providing training to 1,50,000 street vendors in food safety and hygiene.
- These institutes will focus on culinary skills, food safety, and hygiene.

GS III

102. SC to hear Punjab's plea on extension of BSF jurisdiction - The Hindu/ Extending BSF Jurisdiction doesn't take away powers of Punjab Police, says SC - Indian Express

Relevance: Defence

News:

- The Supreme Court addresses the Punjab government's 2021 lawsuit challenging the **Centre's decision to expand the BSF's jurisdiction** to a 50-km stretch from the International Border

Prelims Takeaway

- Schedule 7

Key Points**BSF Jurisdiction Expansion Details**

- The Union home ministry's notification in October 2021 **increased the BSF's jurisdiction in Punjab, West Bengal, and Assam** from 15 km to 50 km
 - In Gujarat, the limit was reduced from 80 km to 50 km, and in Rajasthan, it remained unchanged at 50 km.

Punjab Government's Lawsuit

- Filed in January 2021, Punjab's lawsuit contends that the **BSF's extended jurisdiction encroaches** upon the state's constitutional jurisdiction.
- The suit argues that the **Centre's unilateral decision without consultation** violates the Constitution and infringes on the state's legislative authority.

Concerns Raised by Punjab Government

- Punjab asserts that the October 11, 2021 notification "amounts to encroachment" on the state's powers, **affecting over 80% of the border districts and major towns within a 50-km area from the Indo-Pakistan border.**
- The state argues that the notification is ultra vires the Constitution, **violating List-II of Schedule 7**

103. India offers to host 2028 climate meet - The Hindu/ PM pitches India as host for 2028, calls on countries to rise above self-interest - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- Prime Minister Narendra Modi refrains from new climate commitments but offers to **host COP-33 in India in 2028 during his address at COP-28.**

Prelims Takeaway

- COP-26

- PM emphasises the need for developed countries to vacate carbon space before 2050 and **invites global cooperation on India's "Green Credit Initiative."**

Key Points

Green Credit Initiative

- PM introduces the **"Green Credit Initiative"** as a non-commercial effort to create a carbon sink.
- **The initiative aims to generate credits for plantations** on waste or degraded lands, contributing to the rejuvenation of natural ecosystems.

India's Commitments and COP-28 Developments

- **PM reiterates India's commitments made at COP-26**, including cutting emissions intensity by 45% and increasing non-fossil fuel share to 50% by 2030, aiming for net-zero by 2070.

Financial Targets and Climate Finance

- PM stresses **the importance of new financial targets** without neglecting commitments to the Green Climate Fund (GCF) and the Adaptation Fund.
- He **Calls on developed countries to eliminate their carbon footprint** before 2050 and urges Multilateral Development Banks to ensure affordable finance for developing countries.
- COP-33 is proposed to be host in India in 2028 is seen as a diplomatic masterstroke, providing an opportunity to focus on global south issues and climate justice.

104. Manufacturing PMI rebounds in Nov. - The Hindu/ Factory production rises in November as prices ease, demand strengthens: PMI - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilisation, of resources, growth, development and employment.

News:

- The **manufacturing sector activity rebounded slightly in November** from October's eight-month low pace, as per the **S&P Global India Manufacturing Purchasing Managers' Index (PMI)**.
- However, **positive sentiment** among firms dropped to the **lowest level** in seven months **due to rising inflation expectations**.

Prelims Takeaway

- Purchasing Managers Index
- Sovereign Credit Ratings
- S & P Global

Purchasing Managers Index

- It is a **survey-based measure** that asks the respondents about **changes in their perception** about key business variables as compared with the previous month.
- **Purpose:** To provide information about current and future business conditions to company decision makers, analysts, and investors.
- It is **calculated separately** for the manufacturing and services sectors and then a **composite index** is also constructed.
- It does not capture **informal sector activity**.
- The PMI is a number from **0 to 100**.
 - A print above 50 means expansion, while a score below that denotes contraction.
 - A reading at 50 indicates no change.



Significance of PMI

- It is considered a **good leading indicator** of economic activity.
 - It is usually released at the start of every month.
- Central banks of many countries also use the index to **help make decisions on interest rates**.

- It also gives an **indication of corporate earnings** and is closely watched by investors as well as the bond markets.
- A good reading of index **enhances the attractiveness of an economy** vis-a-vis another competing economy.

105. India not among 118 nations that pledged to push green energy - The Hindu/ Over 110 countries pledge to triple renewable energy capacity by 2030 - Indian Express/ Coal phase-out in COP28 pledge, India refrains from endorsing it - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- During the ongoing COP28 climate summit in Dubai, **118 countries pledged to triple installed renewable energy capacity by 2030.**
- **Notably absent from the list are India and China**, the latter being the world's largest in installed renewable energy capacity.

Prelims Takeaway

- COP-28

Key Points

Background of the Global Renewables and Energy Efficiency Pledge

- The **proposal for a substantial increase in renewable energy capacity** and energy efficiency was initially suggested by European Commission President
- It gained traction in the **New Delhi G20 declaration** in September.

Pledge Details and Concerns

- **The Global Renewables and Energy Efficiency Pledge** aims to triple worldwide installed renewable energy generation capacity to at least 11,000 GW
- It **doubles the global average annual rate of energy** efficiency improvements to more than 4 percent by 2030.
- However, **India did not sign the pledge**, with concerns about the language used in the text.

India's Current Commitments

- India, as part of its nationally determined contributions (NDCs), has already committed to **installing 500 GW of electricity from non-fossil fuel sources by 2030.**
- **With nearly 170 GW already installed as of March 2023**, there is a debate on whether large dams, considered renewable by India, should be included.

Legal Status of the Pledge

- **The pledge currently lacks legal sanctity** and has not been included in the main negotiating texts for COP-28.
- **The commitment by countries is yet to be finalised** and incorporated into the overarching COP-28 agreement by December 12.

Reactions and Hope for Future Engagement

- While both the **United States and Brazil, the second and third-largest** in installed renewable energy capacity, signed the pledge, India's absence disappointed some experts.
- There is **hope that India, with its ambitious targets of 450 GW** of renewable energy by 2030, may champion the cause in the main COP-28 text, providing a boost to the global renewables sector.

106. Stocktake should account for failures of developed countries: BASIC grouping - The Hindu

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- The BASIC grouping has **advocated for a comprehensive evaluation of the Global Stocktake (GST)** during the ongoing COP28 climate talks in Dubai.
- The BASIC grouping, comprises **Brazil, South Africa, India and China**

Prelims Takeaway

- COP28

Key Points**Global Stocktake Significance**

- **The Global Stocktake is a crucial element of the 2015 Paris Agreement**, serving to monitor its implementation and assess collective progress towards agreed-upon goals.

BASIC Grouping's Stance

- Delegates from the BASIC grouping have emphasized that the **GST should not only acknowledge achievements but also account for failures**
 - particularly on the part of developed nations.

Background on BASIC Countries

- The BASIC countries, formed in 2009, **include Brazil, South Africa, India, and China.**
- They committed to **collective action at the Copenhagen climate summit** and hinted at a united walkout if developed nations failed to meet their common minimum position.

COP28 Overview

- The summit, running through December 12, includes **Global Climate Action Summit discussions** and anticipates significant political decisions in the final days to shape resolutions.

107. Six exoplanets found orbiting a nearby bright star - The Hindu

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- Recently, astronomers discovered **six sub-Neptune planets orbiting the bright star HD 110067.**
- The discovery will offer insights into the **formation of the system** and the **composition of the planets' atmospheres.**

Prelims Takeaway

- HD 110067 System
- sub-Neptune planets

HD 110067 System

- HD 110067, the **brightest star**, is located approximately 100 light-years away in the **Coma Berenices constellation.**
- It is known to host more than **four transiting exoplanets.**
- There is a possibility of **additional undiscovered planets** within or beyond the temperate zone.
 - This provides a unique opportunity to study sub-Neptunes and their formation.

sub-Neptune planets

- Planets with **radii between Earth and Neptune**, termed 'sub-Neptunes,' are **common around Sun-like stars.**
- These are the **most commonly observed types of planets** in our galaxy.
- They could be **rocky worlds with thick atmospheres of hydrogen and helium gas**, or composed of rock and ice with warm, water-rich atmospheres.
- Despite their prevalence, details regarding the **composition, formation, and evolution of sub-Neptunes remain unclear.**

Key Findings

- The six planets were detected by **observing minute dimming of the star's brightness** as each planet transited, or passed in front of, the star from our perspective on Earth.
- All six planets **exhibit resonant orbits**, suggesting a **stable system** dating back at least four billion years.
- The study calculated the masses of the planets and estimated their densities, revealing **relatively low densities.**
- The low densities could be attributed to **large, hydrogen-rich atmospheres** surrounding the planets.

108. Codex Alimentarius Commission Praises India's Standards on Millets - PIB

Relevance: Food processing and related industries in India

News:

- Recently, the **Codex Alimentarius Commission (CAC)** praised **India's Standards on Millets**.
- It also accepted India's proposal for the **development of global standards for millets** during its 46th session held in Rome, Italy.
- The proposal coincides with the celebration of **2023 as the International Year of Millets**.

Prelims Takeaway

- Codex Alimentarius Commission
- Millets

India's Millet Standards

- India framed a **comprehensive group standard covering 15 types of millets** with 8 specified quality parameters.
- The standards received appreciation at the international level, with **Codex currently having standards for Sorghum and Pearl Millet**.

Global Standards Proposal

- India proposed the development of global standards for millets, focusing on **Finger millet, Barnyard millet, Kodo millet, Proso millet and Little millet** as group standards.
- The proposal was **unanimously endorsed** by representatives from 161 member countries, including the European Union.

The Codex Alimentarius Commission

- It is an **international food safety and quality standard-setting body**.
- It was created by the **World Health Organisation (WHO)** and **Food and Agriculture Organisation (FAO)** of the United Nations in May 1963.
- **Objective:** Protecting consumer's health and ensuring fair practices in the food trade.
- **Members:** It consists of 189 member countries including India.
- Membership of the Commission is **open to all Member Nations and Associate Members of FAO and WHO** interested in international food standards.
- The Commission meets in **regular sessions once a year**, alternating between Geneva and Rome.
- **Funding:** Funded through the **regular budgets of WHO and FAO**.
- All its work is **subject to the approval of the two governing bodies** of the parent organisations.
- The Commission works in the **six official languages of the UN**.

109. Over half of FY23 bank loan write-offs linked to large industries, services sector - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- The **Ministry of Finance presented data in Parliament** regarding loan by scheduled commercial bank
- It revealed that over half of the loans written off by **Scheduled Commercial Banks in the financial year 2022-23 (FY23)** were associated with large industries and the services sector.

Prelims Takeaway

- NPA (non-performing assets)

Key Points

- The **total written-off loans** amounted to Rs 2.09 lakh crore in FY23.

Loan Write-offs by Sector

- FY23: **Large Industries and Services Dominated** (52.3%)- Rs 2.09 lakh crore loans were written off.
- **52.3% of the written-off amount** was linked to large industries and services.
- FY22: **Dip in Total Written-off Loans** (39.8%)

Historical Perspective: FY20-21 Highest Share (62.3%)

- In FY20-21, large industries and services constituted **62.3% of the total written-off loans amounting to Rs 2.03 lakh crore.**

Total Loan Write-offs and Impact on NPA Ratio

- Total Loans Written Off in Last Five Years: **Rs 10.57 Lakh Crore**
- Banks **write off bad loans worth over Rs 2.09** lakh crore during FY23.
- **Total loan write-offs by the banking sector** reached Rs 10.57 lakh crore in the last five years.

Gross NPAs at 10-Year Low (3.9%) in March 2023

- The **substantial loan write-off helped banks reduce** gross non-performing assets (GNPA) to 3.9% of advances in March 2023.
- **Gross NPAs fell** from Rs 10.21 lakh crore in FY2018 to Rs 5.55 lakh crore by March 2023.

Recovery from Written-off Loans

- **Banks recovered only Rs 1.09 lakh crore** from Rs 5.87 lakh crore loans written off in the last three years.
- **Recovery constituted 18.60% of the total write-offs** during the three-year period.
- Total Defaulted Loans (Including Write-offs)
- Including write-offs, the **total defaulted loans (NPA) would have been 7.47%** of advances, contrasting with the reported 3.9% by banks.

110. Centre committed to increasing the strength of women in defence forces, says Modi - The Hindu/ Navy ranks to be renamed in line with Indian traditions: PM - Indian Express

Relevance: Defence

News:

- The Prime Minister of India recently affirmed the **government's commitment to increase the strength of women in the armed forces.**
- He emphasised India's pursuit of ambitious goals and **utilisation of its full potential.**
- He also congratulated the Navy for **appointing the country's first woman commanding officer on a naval ship.**

Prelims Takeaway

- India Middle East European Corridor.
- Blue Economy

Inspiration from Chhatrapati Shivaji

- The PM **unveiled a statue of Chhatrapati Shivaji**, 17th century Maratha warrior king, at **Rajkot fort.**
- He highlighted the shift from a "slave mentality" to a **forward-moving India** inspired by Chhatrapati Shivaji.
- He commended Shivaji's foresight in recognizing the **significance of naval capabilities.**

Naval Epaulettes

- New epaulettes in the Indian Navy will **reflect Indian culture and highlight Shivaji's heritage and legacy.**
- He also announced the **renaming of ranks in the Indian Navy in line with Indian traditions.**

India's Maritime History

- The Prime Minister **acknowledged India's rich maritime history**, including
 - the heritage of the Indus Valley civilization port in Lothal
 - the maritime capabilities that led to trade expansion by the Chola empire.

Blue Economy and Port-Led Development

- He emphasized the government's focus on the '**Blue Economy**' and highlighted **port-led development under the 'Sagarmala' project.**
- He discussed measures to **harness the potential of India's oceans**, promoting **merchant shipping** and supporting the '**Maritime Vision**' program.

Global Recognition and Economic Growth

- The PM stated that the **world sees India as a 'Vishwa Mitra'** (universal friend).
- He also **highlighted India's economic growth**, moving towards becoming the 3rd largest economy.

- He outlined initiatives like the **India Middle East European Corridor**.

Commitment to Coastal Development

- The Prime Minister reiterated the government's commitment to the **development of the Konkan region and other parts of Maharashtra**.
- He also mentioned the **inauguration of medical colleges, the Chipi airport, and the Delhi-Mumbai Industrial Corridor**.
- Special schemes for cashew farmers and the **protection of coastal residential areas** were also highlighted.
- The PM also discussed the new tradition of **celebrating armed forces' days outside Delhi** to bring attention to other regions in India.

111. Cyber crime cases up by 25%, fraud most common motive: NCRB data - Indian Express

Relevance: Reports and Indices

News:

- According to a recent report from the **National Crime Records Bureau, Cybercrime cases in Delhi tripled in the last three years**, reaching nearly 700 in 2022.
- Majority of cases involve the **publication and transmission of explicit content depicting children electronically**.
- **Bengaluru ranked highest in cybercrime cases**, overshadowing Delhi's numbers.

Prelims Takeaway

- National Crime Records Bureau (NCRB)
- Online Cyber-Crime Reporting Portal

Types of Cybercrimes

- **Online banking fraud** accounted for 72 cases in 2022.
- **OTP frauds** numbered 91 cases, and 21 cases involved **ATM frauds**.
- **Computer-related offences** and **cyber-stalking/bullying of women and children** were also reported.

Common Cybercrime Tactics

- **OTP and online banking frauds are prevalent**, with scammers posing as bank executives.
- Call centres operating across the city target individuals, emphasising the importance of **not sharing banking details**.

The Current Scenario and Solutions

- The **expansion of the bank network** contributes to the increase in banking frauds.
- **Victims are becoming more aware**, with an increase in complaints and FIRs being filed.
- The **National Cyber Crime Reporting Portal** facilitates easy lodging of complaints.
- Delhi Police established **Cyber Crime police stations** in all districts last year.

National Crime Records Bureau (NCRB)

- NCRB, headquartered in New Delhi, was set-up in 1986 under the **Ministry of Home Affairs**.
- It was set up based on the **recommendations of the National Police Commission (1977-1981) and the MHA's Task Force (1985)**.
- **Purpose:** To function as a repository of information on crime and criminals so as to assist the investigators in linking crime to the perpetrators.

Functions

- To maintain the **National Database of Sexual Offenders (NDSO)** and share it with the States/UTs on a regular basis.
- NCRB has also been designated as the **Central Nodal Agency** to manage technical and operational functions of the '**Online Cyber-Crime Reporting Portal**'.
 - Any citizen can lodge a complaint or upload a video clip as an evidence of crime related to child pornography, rape/gang rape on the portal.
- The responsibility of implementation of the **Inter-operable Criminal Justice System (ICJS)** has also been given to the NCRB.

112. IISER Bhopal researchers conduct first genome sequencing of jamun - Indian Express

Relevance: Science and Technology- developments and their applications and effects in everyday life.

News:

- Not just Ayurveda but multiple clinical studies have shown the health benefits of jamun as an **excellent source of antioxidants, iron, and vitamin C.**

Prelims Takeaway

- Genome

Key Points

Research Objectives

- The primary aim is to gain new **functional and evolutionary insights from the jamun genome.**
- Exploration of the genomic basis for the wide range of **pharmacological properties attributed to jamun.**
- **Jamun is identified as the largest genome sequenced** from the Syzygium genus.

Genomic and Evolutionary Analysis

- **Utilization of Oxford Nanopore and 10x Genomics** sequencing technologies in decoding the S. cumini genome.
- **Discovery of a higher number of coding genes** in the jamun genome, indicating a neopolyploidy event.
- V. Adaptive Evolution and Pharmacological Properties

Anti-Diabetic Properties

- Presence of glycosides explained as a factor **preventing starch conversion into sugar, elucidating the anti-diabetic value.**

Stress Tolerance and Adaptive Evolution

- **Genes identified in jamun contribute to stress tolerance** against factors like weeds, insects, heat, salinity, and drought.

113. Glaciers shrank 1 m a year in a decade: WMO - The Hindu

Relevance: Conservation, environmental pollution and degradation

News:

- A report from the WMO reveals that **despite being the warmest decade** on record, the 2011-2020 period experienced the **lowest number of deaths from extreme events.**
- The World Meteorological Organisation (WMO) attributes this positive trend to **advancements in early warning systems, improved forecasting and better disaster management.**

Prelims Takeaway

- World Meteorological Organisation (WMO)
- Climate Finance

Improvements in Early Warning Systems

- The **2011-2020 decade** was the first since 1950 when there was **not a single short-term event with 10,000 deaths or more.**
- **Advancements in forecasting**, particularly in countries like India, contributed to **better preparedness and evacuation**, reducing the impact of natural disasters.

Climate and Environmental Changes

- The decade marked the first **visible signs of recovery in the depleted ozone hole**, signalling positive environmental changes.
- However, **glaciers worldwide thinned by an average of 1 metre per year.**
- **Greenland and Antarctica lost 38% more ice** during the period than during the 2001-2010 period.
- The report also **mentioned the 2021 Uttarakhand rock-avalanche** triggered by a breach in the Nanda Devi glacier in the Himalayas.

Impact of Human-Caused Climate Change

- It significantly **increased the risks of extreme heat events**, with heat waves causing the highest number of human casualties.
- **Tropical cyclones** emerged as the **leading cause of economic damage** during the decade.

Climate Finance

- Public and private climate finance **nearly doubled during the period.**
- Despite the increase, the report emphasizes the need for a **sevenfold increase in climate finance by the end of the decade** to achieve global climate objectives.

114. India's CO2 emission may register biggest rise for 2nd yr: study - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- Annual study by the **Global Carbon Project** reveals India's potential for the second successive year of **registering the largest growth in carbon dioxide emissions.**
- **Concerns raised at the annual climate change** conference regarding the alarming trends in global emissions.

Prelims Takeaway

- Global Warming

Key Points**Emission Trends and Global Warming**

- Study indicates a **50% chance of breaching the 1.5 degrees Celsius** threshold in the next seven years if current emission trends persist.

India's Carbon Dioxide Emissions

- **There is expected 8.2% rise in India's annual CO2 emissions for 2023**, doubling the anticipated increase in China.
- **Power demand growth in India**, particularly driven by insufficient renewable capacity, cited as a major factor.

Comparison with China

- **China's 4% growth in CO2 emissions in 2023**, despite being four times that of India in absolute amounts, contributes significantly to global emissions.

Coal-Fired Power Plants Impact

- It was an anticipated **contribution of 176 million tonnes** to India's increased CO2 emissions from coal-fired power plants.

115. One-third of India's coastline vulnerable to erosion: minister - Indian Express

Relevance: Conservation, environmental pollution and degradation

News:

- Recently, the Union Minister of Environment, Forest and Climate Change cited a study by the **National Centre for Coastal Research (NCCR)** in the Lok Sabha.
- According to the study **over one-third of India's coastline is vulnerable to erosion.**
- He also highlighted a **state-wise study on beaches facing erosion** conducted by the **National Centre for Sustainable Coastal Management (NCSCM).**

Prelims Takeaway

- Coastal Regulation Zone (CRZ) Rules
- National Centre for Coastal Research

State-wise Vulnerability

- **Andhra Pradesh:** Out of 116 surveyed beaches, 35 are vulnerable to erosion.
- **Goa:** Among 50 surveyed beaches, 22 face erosion and 28 are under accretion.
- **Maharashtra:** 21 out of 31 surveyed beaches face erosion.
- **Kerala:** 13 out of 22 surveyed beaches face erosion.
- **Tamil Nadu:** 9 out of 21 surveyed beaches are prone to erosion.
- **Karnataka:** 13 out of 18 surveyed beaches are prone to erosion.

Overall Coastline Vulnerability

- **33.6% of the Indian coastline is susceptible to erosion**, 26.9% is under accretion, and 39.6% is in a stable state.
- The changes in shoreline are attributed to a **combination of natural and human activities.**
- The receding coastline would **adversely affect the livelihoods of fishing communities.**

Government Measures

- The MoEFCC has implemented the **Coastal Regulation Zone (CRZ) notification, 2019**, aiming to conserve coastal stretches and protect marine areas.
- **No Development Zones (NDZ)** have been designated to safeguard coastal areas from encroachment and erosion.
- Chief secretaries of coastal states and Union Territories were urged to **finalize the Coastal Zone Management Plan (CZMP)**, including
 - mapping erosion-prone areas
 - preparing a shoreline management plan for identified eroding stretches.
- The ministry has **delineated a hazard line for the entire coast of India**.
- **Coastal erosion mitigation measures have been initiated** in Puducherry and Chellanam in Kerala, resulting in the restoration and protection of coastal areas.
- **Technical support has been extended** to the coastal states
 - Design of coastal protection measures at vulnerable stretches
 - Preparation of shoreline management plans

116. Google unveils 'Gemini,' AI tech trained to behave like humans - The Hindu

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- Google recently launched **Project Gemini**, an AI model designed to **exhibit human-like behaviour**.
- The **rollout will unfold in phases** which includes **versions named "Nano" and "Pro"** immediately incorporated into Google's AI-powered chatbot Bard and the Pixel 8 Pro smartphone.
- The **more advanced "Ultra" model** is slated to power an upgraded version of Bard called "Bard Advanced."

Features and Applications

- Gemini enhances Bard's capabilities, making it **more intuitive and proficient at planning tasks**.
- On the Pixel 8 Pro, Gemini can **summarise recordings and provide automatic replies on messaging services** like WhatsApp.
- The Ultra model, scheduled for early next year, is expected to **introduce unprecedented AI multitasking**.
 - by simultaneously recognizing and understanding presentations involving text, photos and video.

Integration and Language Support

- While **initially available only in English**, Google plans to expand Gemini's language support.
- The AI model will eventually be integrated into Google's dominant search engine, promising **significant advancements in AI development**.

Problem-Solving Skills and Potential Impact

- Google praised Gemini's **problem-solving skills**, particularly in maths and physics, raising hopes for **scientific breakthroughs**.
- However, concerns persist about AI potentially **surpassing human intelligence**, leading to **job losses and other potential risks**.
- Google CEO underscored **collaboration** with governments and experts to **address emerging risks**.

Prelims Takeaway

- Artificial intelligence
- Project Gemini

117. COP28 enters 2nd week, but all complex issues unresolved - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

The Conference of the Parties (COP28) climate meeting has entered its second week of negotiations with crucial issues still pending resolution.

Prelims Takeaway

Green Climate Fund

The primary focus is on the Global Stocktake (GST), a review mandated by the 2015 Paris Agreement to enhance climate actions.

Key Points

Global Stocktake (GST)

The GST, the most critical agenda, **aims to determine enhanced climate actions** in response to previous inadequacies.

Contentious topics like **fossil fuel phase-out, renewable energy targets**, and methane emissions reductions are under discussion, with divergent country positions.

UAE's Contributions

In the first week, **UAE facilitated the operationalization** and initial capitalization of the Loss and Damage Fund

Aiding developing countries in recovering from climate disasters.

Notable achievements include nine voluntary pledges on various issues, though their impact on climate action acceleration remains uncertain.

Financial Commitments

UAE secured promises of at least US\$ 83 billion, including a private investment vehicle of US\$ 30 billion for a **"new climate economy," aiming for US\$ 250 billion in investments by 2030.**

US\$ 3.5 billion announced for **the Green Climate Fund at COP28**, reaching a total capitalization of US\$ 12.8 billion for green projects over the next four years.

Challenges and Future Goals

Despite financial commitments, **the sum falls short of the trillions** needed annually for comprehensive climate actions.

Developed countries, claiming to have met the US\$ 100 billion per year target last year, **must agree on a new climate** finance goal exceeding US\$ 100 billion annually, to be delivered from 2025 onwards.

118. RBI keeps repo rate at 6.5%, raises GDP growth forecast - The Hindu/ RBI raises GDP growth forecast to 7%, points to risk of food inflation - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- The RBI's Monetary Policy Committee unanimously decided to maintain key interest rates.

Prelims Takeaway

Monetary	Policy
Committee (MPC)	

Key Points

- The GDP growth projection for **2023-24 was raised to 7% from 6.5%.**

Current Inflation Scenario

- Despite progress, **inflation remains above the 4% target**, with warnings of potential spikes in November and December.
- RBI Governor emphasised that **headline inflation is volatile due to supply shocks**, particularly in the context of uncertain food prices.

Food Inflation Moderation

- food inflation has moderated from double-digit levels**, its outlook is uncertain, necessitating caution in monetary policy.

Withdrawal of Accommodation

- Five out of six MPC members voted** for a policy stance focusing on the **"withdrawal of accommodation."**

Rate Cut Uncertainty

- No **clear indication of when interest rates** might be reduced, with the key repo rate on pause for five successive reviews.

Growth Forecasts

- **Real GDP growth for 2023-24 is projected** at 7%, prompted by a strong second-quarter uptick of 7.6%.
- **Despite global uncertainties, RBI asserted that India is better positioned** to withstand impacts compared to other emerging economies.

119. RBI enhances UPI payment limits, to set rules for online loan aggregators - The Hindu

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- RBI announced increased UPI payment limits for healthcare and education from ₹1 lakh to ₹5 lakh.

Prelims Takeaway
Fintech Repository

Key Points

- **RBI Limits on recurring e-payment mandates** for credit card, insurance premiums, and mutual fund investments raised to ₹1 lakh from ₹15,000.
- In late 2022, **RBI introduced a regulatory framework for digital lending.**
- To address concerns and **enhance customer centricity and transparency**, RBI decided to lay down a regulatory framework for web-aggregation of loan products.
- RBI Aims to improve the overall digital lending landscape.
- RBI proposed the creation of a **Fintech Repository by April 2024.**
- **Fintechs are encouraged to voluntarily provide relevant** information to the Repository for better regulatory oversight.

120. India climate action fourth strongest, says report - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- **India's climate actions were ranked as the fourth strongest** in the annual Climate Change Performance Index by Germanwatch.

Prelims Takeaway
Greenhouse gas

Key Points

- This marks **an improvement of one place from the previous year's** ranking.
- The index **ranks 59 countries and the European Union** based on their performance in climate actions.
- **None of the countries have achieved a "very high"** rating in recent years, leaving the first three ranks vacant.
- **Denmark retains its top position** as the best performer for the second consecutive year.
- **India's ranking in the top five reflects** a positive shift, with only Estonia and the Philippines outperforming.
- **The index assesses countries based on four indicators**—total emissions, renewable energy deployment, energy use, and climate policy.
- **India received high rankings on greenhouse gas** emissions and energy use indicators.
- **Medium ratings were given for climate policy** and renewable energy deployment.
- **The report suggests India should agree to :**
 - a **faster coal phase-out**
 - reduce reliance on gas
 - expand its renewable energy capacity.
- Additionally, **advancing its 2070 net-zero target is emphasised.**

121. U.S. FDA approves pair of gene therapies for sickle cell disease - The Hindu

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Prelims Takeaway

News:

- The U.S. Food and Drug Administration (FDA) recently approved a **pair of gene therapies for sickle cell disease**.
- The agency **approved Lyfgenia** from bluebird bio, and **Casgevy** by Vertex Pharmaceuticals and CRISPR Therapeutics for the illness.
- Both therapies are **approved for individuals aged 12 years and older**.

Casgevy Sickle Cell Disease

CRISPR Gene Editing Technology

- Casgevy utilizes the breakthrough **CRISPR gene editing technology**, awarded the Nobel Prize in 2020.
- Casgevy **edits the faulty gene** responsible for sickle cell disease **using the patient's own blood stem cells**.
- It **targets the BCL11A gene**, promoting the production of foetal haemoglobin, which does not carry the same abnormalities as adult haemoglobin.

Sickle Cell Disease

- Sickle cell disease is an **inherited blood disorder** causing pain, organ failure, and premature death.
- Approximately 100,000 people in the US, **predominantly Black individuals, are affected by the disease**.
- Sickle cell disease results in **flawed, sickle-shaped haemoglobin**, impairing oxygen transport by red blood cells.
- **Sickle cells can clump together**, blocking blood vessels and causing severe pain, strokes, and organ failure.

One-Time Treatments

- Both therapies are marketed as **one-time treatments**, but the duration of their effectiveness is uncertain.
- Doctors express skepticism, preferring to term them "**transformative therapy**" rather than a cure.
- The **only longer-term treatment** for sickle cell disease is a **bone marrow transplant**.

122. Research Symposium at the Global Partnership on Artificial Intelligence - GPAI 2023 - PIB

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- India will be hosting the **Annual Global Partnership on Artificial Intelligence (GPAI) Summit** from December 12 - 14, 2023.

Global Partnership on Artificial Intelligence (GPAI)

- It is a **multi-stakeholder** initiative focusing on **AI research and practical applications**.
- **Objective:** To bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.
- Launched in **June 2020 with 15 members**, it has now expanded to 28 member countries and the European Union.
- Membership in GPAI is **open to all countries**, including emerging and developing countries.
- **India** is one of the **founding members of GPAI**.
- Its **secretariat** is hosted at the **Organisation for Economic Co-operation and Development (OECD), Paris**.

Prelims Takeaway
Global Partnership on Artificial Intelligence (GPAI) Artificial Intelligence

Organisation Structure

- It has a **Council and a Steering Committee**.
- It has **two Centres of Expertise** namely in Montreal and Paris.
 - These Centres of Expertise **facilitate GPAI's four working groups** and their research and practical projects, across various sectors and disciplines.

- The working groups will **initially focus on four themes** viz.
 - Responsible AI
 - Data Governance
 - the Future of Work
 - Innovation and Commercialization

Research Symposium on Responsible AI

- The Ministry of Electronics and Information Technology (MeitY) and Centre for Responsible AI (CeRAI), IIT Madras, are organizing a **Research Symposium** during the Summit.
- **Theme:** Advancing Responsible AI in Public-Sector Applications.
- **Objective:** To provide a platform for Indian and International academicians and researchers to
 - collaborate with other AI experts
 - present actionable research on Responsible AI in front of a global audience
 - enhance cross-sectoral research on responsible AI.
- The **Symposium has two tracks**; one with invited expert speakers, and the other, conference shortlist track.
- Both tracks include **distinguished scholars and practitioners** from institutions like New York University, Oxford University, IEEE, Carnegie Mellon University, and others.

123. Key COP document calls for progress in adapting to climate change by 2030 -The Hindu

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.
News :

- By **2025**, all countries must have in place a detailed plan to adapt to the current and future impacts of climate change in their countries.
- This must **demonstrate progress** in implementing such a plan by **2030**.

Prelims Takeaway

National Adaptation Fund for Climate Change

Global Goal on Adaptation (GGA) document

- The **Global Goal on Adaptation (GGA)** document is expected to be part of the agreement when the **UN's COP-28** climate summit concludes in Dubai.
- Much of the focus at the **annual talks** is on
 - 'mitigation',
 - getting countries to commit to time-bound plans to reduce the greenhouse gas emissions which cause climate change,
 - emphasis on the Global Stocktake process.

Adaptation Approach

- This approach to push countries to take the steps necessary to cope with the current and future impacts of a changing climate.
- Global temperatures have already risen **1.1 degrees C** since pre-industrial times
- They need to be brought in their wake and accelerated in **climate-related disasters**.
- 'Adaptation' refers to the **adjustments** in ecological, social or economic systems that countries must make in response to these, and other anticipated climate effects.
 - These actions are **country-specific**.
- They can **range from**
 - Building flood defences,
 - Setting up early warning systems for cyclones,
 - Switching to drought-resistant crops,
 - Redesigning communication systems
 - Business operations
 - Government policies

COP Talks

- At COP 21 in Paris, negotiators decided that the GGA was necessary to get all countries on board a **common framework** for adaptation.
- **Eight workshops** were held after the last COP in Sharm el-Sheikh, Egypt where quantitative targets were decided.
 - To adverse impacts of climate change by at least 50% by 2030
 - By at least 90% by 2050”
 - Achieving 100% coverage of multi-hazard early warning systems, climate information services and response systems by 2027”

The cost of adaptation

- Just as billions and trillions of dollars are needed for mitigation,
- adaptation too is expected to require developed countries to invest trillions of dollars in developing countries and island states,
- developing countries and island states, are most at risk from climate hazards.
- Only a fraction of what is required has made its way to where it is required.

Financing of Indian Efforts on Climate Change

- India had formally conveyed to the **United Nations** that it was meeting most of its adaptation expenses with its own money.
- “The total adaptation relevant expenditure was **5.6% of the GDP** in 2021-2022, growing from a share of **3.7% in 2015-16**.
- There is a significant gap in adaptation resources which cannot be met only through governmental resources.
- Significant contributions need to be channelized through **bilateral and multilateral public finance** and private investments

India's Expression of Disappointment

- There are no clearly defined targets, no clear definition of a framework, lots of very general exhortations, no outcome targets
- The developed countries do not do anything for the adaptation agenda for developing countries and this is disappointing.
- Out of \$1.27 trillion in climate finance flows in 2021-22, only \$63 billion is allocated for adaptation.
- This is out of the framework of the the National Adaptation Fund for Climate Change

124. Railways withdraws emergency cashless treatment scheme -The Hindu

Relevance: Inclusive growth and issues arising from it.

News :

- The Indian Railways has withdrawn the Cashless Treatment Scheme in Emergency (**CTSE**).
- It was a medical facility which benefitted a few lakh **servicing** and **retired** employees and their **dependent** family members across the country.

Cashless Treatment Scheme in Emergency (CTSE) Scheme of Railways

- A pilot project for providing cashless treatment during emergencies in **private Railway-empanelled hospitals** was initially launched in metro cities in 2016.
- It covered the servicing and retired employees and their dependent family members to avail treatment in private hospitals during emergencies.
- The scheme provided necessary treatment in emergencies and raised the bill directly to the Railways.

Withdrawal of Scheme and After Effects.

- The Railway Board reviewed the implementation of the scheme and **after a careful deliberation** decided to withdraw the CTSE with immediate effect.
- It was also decided that no refund would be issued to **CTSE-card holder** for the amount that was deposited for subscription to the scheme.

Prelims Takeaway

- Cashless Treatment Scheme in Emergency

- It was felt that a large number of **retired beneficiaries** lived in the newly-developed suburbs of various cities across India.
- These suburbs were often far away from the established **railway health institutions**.
- In this scenario, precious time was lost in the travel to the Railway hospitals in case of emergency.
- There was **no need for any referral** from the local railway medical authorities.
- The treatment to serving and retired employees and their dependent family members was **still available** but with the reference of the railway medical officer

125. India ranks 7th in Climate Change Performance Index - AIR

Relevance: Conservation, environmental pollution and degradation

News:

- India secured the **7th position** in the **Climate Change Performance Index (CCPI)** recently released during the **global climate conference (COP-28) in Dubai**.
- This marks an **improvement of one rank from the previous year**.

Prelims Takeaway

- Climate Change Performance Index
- COP 28

Climate Change Performance Index

- It is an instrument to **enable transparency in national and international climate politics**.
- It is **published by Germanwatch, the New Climate Institute and the Climate Action Network annually**.
- The CCPI **evaluates the endeavours of 63 countries and the European Union, encompassing over 90% of global greenhouse gas emissions**.
- The climate protection performance is **assessed in four categories** viz. GHG Emissions, Renewable Energy, Energy Use and Climate Policy.

Global Rankings

- **Denmark** retained the **top spot with a score of 75.59 percent**.
- **China**, the largest global polluter, secured the **51st position**.
- The **United States**, the second-largest emitter, stood at **number 57** in the CCPI rankings.

Historical Improvement

- India has sustained its **top 10 position for the fifth consecutive year**, underscoring its ongoing commitment to climate mitigation efforts.
- India's performance in the CCPI has shown a **noteworthy trajectory of improvement**, progressing from the 31st rank in 2014 to the current 7th position in 2023.
- This upward trend reflects **India's dedication to enhancing its climate mitigation strategies** over the years.
- India received a **high ranking in the GHG Emissions and Energy Use categories**, but a **medium in Climate Policy and Renewable Energy**, as in the previous year.
- India has relatively **high taxes on petrol and diesel**, which are intended to act as carbon taxes.

126. Youth for Unnati and Vikas with AI (YUVAi) to feature in GPAI Summit 2023 - PIB

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- The '**YUVAi- Youth for Unnati and Vikas with AI**' initiative will be featured at the **Global Partnership on Artificial Intelligence (GPAI) Summit**.

YUVAi Initiative

- It is a **collaborative initiative** by the National e-Governance Division (NeGD), Ministry of Electronics & Information Technology (MeitY) and Intel India.

Prelims Takeaway

- Global Partnership on Artificial Intelligence (GPAI) Summit.
- YUVAi Initiative

- This initiative focuses on **equipping youth with essential AI skills** for a future-ready workforce.
- It is designed to **deepen understanding of AI among school students** (class 8 to 12) nationwide, empowering them to become **human-centric designers and users of AI**.

Key Features

- The **program progresses in three phases**, aiming to guide students toward responsibly using AI to address real-world challenges.
- It introduces students to **several social themes** to direct their AI knowledge towards **solving real-world problems**.
- In the first cohort, over 8,500 students registered, attending **online orientation sessions to learn fundamental AI concepts**.
- **Teachers also enrolled** and underwent orientation sessions.
- Students then submitted **innovative AI-based ideas under one of the eight core themes** of the programme, with the top 200 shortlisted.
- Shortlisted students received **deep dive AI training and mentorship** with Intel AI coaches in Phase 2.
- Students then submitted their **AI projects to be evaluated for Phase 3**.
- In Phase 3, the top 50 students attended a **face-to-face rapid modeling workshop**, receiving mentorship from industry experts.
- The Top 10 finalists will **represent YUVAi at the GPAI Summit**, showcasing their **AI-based social impact projects**.

127. India-led Global River Cities Alliance launched at COP28 - Indian Express

Relevance: Conservation, environmental pollution and degradation

News:

- Recently, the **National Mission for Clean Ganga (NMCG)** initiated the **Global River Cities Alliance (GRCA)** as an **extension of the Namami Gange program**.
- The launch took place at the **United Nations Climate Change Conference COP28 in Dubai**.

Expansion of River Cities Alliance

- The GRCA **expands the existing River Cities Alliance** formed by NMCG and the National Institute of Urban Affairs (NIUA).
- Notably, cities like **Den Haag (Netherlands), Adelaide (Australia) and Szolnok (Hungary)** have joined the GRCA.

Prelims Takeaway

- National Mission for Clean Ganga (NMCG)
- Global River Cities Alliance (GRCA)
- River Cities Alliance (RCA)

River Cities Alliance (RCA)

- It is a **joint initiative** of the Department of Water Resources, River Development & Ganga Rejuvenation under the Ministry of Jal Shakti (MoJS) and the Ministry of Housing and Urban Affairs (MoHUA).
- **Vision:** To connect river cities and focus on sustainable river centric development.
- Beginning with 30 member cities in November 2021, the Alliance has expanded to **109 river cities across India** and one international member city from Denmark.

International Collaboration

- The GRCA signed a Memorandum of Common Purpose (MoCP) with the **Mississippi River Towns and Cities Initiative** of the United States.
- This marked a **unique global alliance** for **river conservation** and **sustainable water management**.

Global Significance

- The GRCA launch is hailed as a significant step in **global efforts toward river conservation**.

- The alliance is expected to play a crucial role in **coordinating post-COP activities**, shaping the framework for effective implementation of river conservation initiatives.

128. Retail inflation is stable now: FM - The Hindu

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

Prelims Takeaway

- Inflation
- Monetary Policy Committee

Easing inflation

FM asserts inflation has been within acceptable limits since the introduction of the tolerance band in 2016

■ **Nirmala Sitharaman says retail inflation is now stable and within the RBI's notified tolerance band of 2% to 6%**

■ **Core inflation has declined from 5.1% in April 2023 to 4.3% in October 2023, FM says**



■ **Temporary increases in inflation reined in by supply-side and demand stabilisation measures, she asserts**

129. Draft climate deal fails to 'phase out' fossil fuel - The Hindu/ Oil producers water down provision on fossil fuel phase-out - Indian Express

Relevance: Conservation, environmental pollution and degradation

News:

- After four days of negotiations at COP28, a **new draft agreement text** emerged, sparking controversy over its **weakened provisions on fossil fuel elimination**.

Prelims Takeaway

- Paris Agreement
- COP 28

Key Highlights

Dilution of Fossil Fuel Provision

- The draft text called for countries to "**reduce both consumption and production of fossil fuels, in a just, orderly and equitable manner.**"
- Fossil fuels, responsible for **nearly 80% of greenhouse gas emissions**, were **explicitly mentioned for the first time in COP decisions**.
- The dilution of the provision disappointed many, as it **fell short of explicitly outlining measures** needed to reduce fossil fuel emissions.

European Union's Rejection

- The European Union (EU) and some small island states **rejected the draft**, deeming certain elements "**wholly unacceptable.**"
- The EU expressed disappointment, citing the **inadequacy of the text in addressing climate issues**.

Resistance from Oil Producing Countries

- Efforts to include a **strong provision on fossil fuel phase-out** faced **resistance from oil-producing nations** such as Saudi Arabia and Russia.

- A letter from the secretary general of OPEC urged members to **reject any stringent provision**, contributing to the diluted language in the draft.

Retained Phase-Down of Coal

- Despite the dilution, the draft maintained a **provision on the phase-down of coal**.
- New requirements were introduced **restricting the establishment of new coal-fired power plants**.
- This raised concerns about **potential conflicts with India's stance on coal reduction**.

India's Position

- India, a significant coal consumer, has been **cautious about phasing out coal** for accelerated reduction, **viewing it as discriminatory**.
- While India **did not immediately react to the draft**, it has consistently emphasized its **concerns about efforts to expedite coal phase-down**.
- The draft's retention of a **coal phase-down provision**, coupled with **restrictions on new coal-fired power plants**, may pose challenges for India's stance.
- India has previously indicated that **any compromise on the commitment to the 1.5 °C warming limit**, or attempts to **single out coal unfairly**, would be rejected.

130. Retail inflation rises to 5.55% in November - The Hindu

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- Recently, **consumer prices in India surged to a three-month high** in November, registering a **5.55% increase** compared to October's 4.87%.
- This acceleration was primarily **driven by a notable spike in food price inflation**, reaching 8.7%, up from 6.6% in the previous month.
- **Rural areas experienced a higher inflation rate** at 5.85%, surpassing urban inflation, which stood at 5.3%.
- The **overall consumer price inflation** for November 2022 **reached 5.88%**, with the food price index witnessing a rise of 4.7%.

Prelims Takeaway

- Monetary Policy Committee
- Inflation Targeting
- Inflation

Inflation

- A **long-term increase** in the **general price level** of goods and services in a given economy.
- It considers the **pricing of most everyday or standard products and services**, such as food, clothes, housing, recreation, transportation, consumer staples, etc.
- It is **positive** when it helps **improve consumer demand and consumption**, and **operate economic growth**.
- Even inflation is meant to keep **deflation** in check and is a **drag** on the economy.

Inflation Targeting

- It is a **central banking policy** that focuses on **altering monetary policy to attain a set annual inflation rate**.
- It is founded on the assumption that **preserving price stability**, which is achieved by managing inflation, is the greatest way to **generate long-term economic growth**.
- Under the RBI Act, 1934, the **Central Government, in consultation with the RBI**, determines the **inflation target** in terms of the **Consumer Price Index (CPI)**, **once in five years**.
- It provides for the constitution of a **six-member Monetary Policy Committee (MPC)** to determine the **policy rate required to achieve the inflation target**.
- Currently, the RBI aims to **keep inflation at 4%** but will tolerate inflation between the **range of 2% to 6%**.

Monetary Policy Committee (MPC)

- Under **Section 45ZB of RBI Act, 1934**, the central government is empowered to constitute a **six-member Monetary Policy Committee (MPC)**.
- **Objective:** To determine the Policy Rate required to achieve the inflation target
- The decision of the Monetary Policy Committee shall be **binding on the Bank**.
- **Composition:** The MPC shall consist of **6 members** viz.
 - RBI Governor as its ex-officio chairperson
 - Deputy Governor in charge of monetary policy
 - An officer of the Bank to be nominated by the Central Board
 - Three persons to be appointed by the Central Government
 - They must be persons of ability, integrity and standing, having knowledge and experience in the field of economics or banking or finance or monetary policy.

131. Modi kicks off global AI summit - The Hindu

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- The **Global Partnership for Artificial Intelligence (GPAI) Summit** recently began in New Delhi, featuring **discussions on AI safety and development challenges**.
- The Prime Minister emphasized that **trust in AI hinges on addressing ethical, economic and social aspects**.

Prelims Takeaway

- Global Partnership for Artificial Intelligence (GPAI) Summit
- Artificial Intelligence

Global Partnership for Artificial Intelligence (GPAI) Summit

- It is a **multi-stakeholder** initiative focusing on **AI research and practical applications**.
- **Objective:** To bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.
- The summit **involves participation from 29 countries** across North and South America, Europe, and Asia.
 - Notably, China is not a member.
- **India will lead the grouping** as the chair in 2024.

Focus Areas

- Panel discussions covered crucial issues, including **data sharing, cross-border data flows and ownership**.
- The discussions aim to **foster international collaboration** on AI-related issues.
- Paytm CEO stressed the **role of AI in transforming farming practices** and **addressing ecological concerns**.
- The Indian government is actively considering these matters to **rebalance power dynamics in data ownership**.

Prime Minister's Concerns and Proposals

- The PM **raised pertinent questions**, including
 - The establishment of an institutional mechanism for resilient employment in the AI era
 - The need for a standardized global AI education curriculum.
- He also addressed the **potential misuse of AI in creating deepfake content**.
- He stressed the importance of transparency, suggesting the **use of watermarking for AI-generated products**.

Security and Transparency in AI

- He highlighted concerns about **terrorists accessing AI tools**, increasing cybersecurity threats and potential data theft incidents.

- He called for **visibility into the algorithms behind AI models**, emphasising the transformative nature of AI while urging for transparency in its deployment.

132. Base effects boosted IIP growth to 11.7% in October - The Hindu/ Food prices drive November inflation to 3-month high; Oct IIP at 16-month peak - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- In October, **India's factory output** exhibited a significant rebound, recording a **growth rate of 11.7%, marking a 16-month high**.
- This positive development **follows a slight setback in September** when the growth rate had dipped to 5.8%.

Prelims Takeaway

- Index of Industrial Production
- Eight core sectors

Not so rosy

IIP growth witnessed a bounce in October but many segments experienced slow to no growth from September

- 19 of 23 manufacturing sectors grew in Oct. and four of six segments on end-use basis saw double-digit growth

- Capital goods and consumer durables logged strong growth but after a sizeable contraction in the year earlier

- Consumer durables and non-durables lagged their 2021 levels when the festive season had a similar onset



Index of Industrial Production

- IIP is an indicator that measures the changes in the **volume of production of industrial products** during a given period.
- It is a **composite indicator** that measures the **growth rate of industry groups**.
 - The industry groups that it measures are **classified** as
 - Broad sectors like manufacturing, mining, and electricity.
 - Use-based sectors like capital goods, basic goods, intermediate goods, infrastructure goods, consumer durables, and consumer non-durables.
- It is used by **government agencies** including the Ministry of Finance, the Reserve Bank of India, etc, **for policy-making purposes**.
- It is compiled and published **monthly** by the **National Statistical Office (NSO)**, Ministry of Statistics and Programme Implementation.
- Base Year for IIP is **2011-2012**.

Eight Core Sectors

- These comprise **40.27%** of the weight of items included in the Index of Industrial Production (IIP). The eight core sector industries in **decreasing** order of their weightage: **Refinery Products> Electricity> Steel> Coal> Crude Oil> Natural Gas> Cement> Fertilisers**.

133. Export-oriented green hydrogen projects may get govt's fiscal support - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- The Indian government is considering **amendments to Special Economic Zone (SEZ)** rules to accommodate renewable energy plants for captive consumption in SEZs specifically for green hydrogen projects.
- This potential change, **currently under review by the Ministry of Commerce**, aims to allow fiscal benefits for export-oriented green hydrogen initiatives.

Prelims Takeaway

- Renewable Energy

Key Points

- Green hydrogen developers **seek an amendment to the rule issued by the commerce ministry's SEZ Division**
 - which currently restricts tax and duty benefits for non-conventional power plants set up for captive consumption in SEZ units.

Multi-Locational SEZs

- **Developers propose the notification of SEZs** that can be spread across multiple locations, especially for green hydrogen projects.
- **This adjustment would facilitate the use of wind energy**, as turbines can be located at a considerable distance from each other
 - overcoming the current requirement for contiguous land area.

Relaxation of Land Area Requirement

- The **commerce ministry is open to relaxing the contiguous land area** requirement of 50 hectares for SEZs, specifically for green hydrogen projects.
- This **relaxation is crucial for export-oriented green hydrogen** projects utilising wind energy, as it allows discontinuous patches of land for wind turbine installations.

Amendment Impact on Fiscal Benefits

- The suggested **amendment aims to make renewable energy plants for captive consumption** eligible for fiscal benefits, aligning them with plants meant for selling power outside of SEZs.

Government's Response and Further Directions

- **The Ministry of New and Renewable Energy (MNRE)** directs the Ministry of Power and the Ministry of Ports, Shipping and Waterways **to address transmission and logistics issues faced by green hydrogen developers.**

Reduced Bank Guarantees

- MNRE urges the **power ministry to reduce bank guarantees required for grid connectivity** of renewable energy plants from Rs 10 lakh per megawatt to Rs 5 lakh per megawatt.

Dual Connectivity

- **MNRE requests the power ministry to provide dual connectivity** for green hydrogen projects through both central and state transmission systems.

Upcoming Meetings and Proposals

- MNRE proposes a separate meeting with **MoPSW to discuss land allocation near ports for green hydrogen projects.**
- **MoPSW is urged to set up common infrastructure** for bunkering of green ammonia at ports, supporting the derivatives of green hydrogen.

134. COP-28 calls for 'transition away' from fossil fuels - The Hindu/ For first time, nations strike deal to move away from fossil fuels - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

Prelims Takeaway

- **Negotiators at COP28 in Dubai reached the Dubai Consensus**, marking a small but significant move towards transitioning away from fossil fuels.

• Dubai Consensus

Key Points

- The consensus, a 21-page resolution, emphasises the need for a just, orderly, and equitable transition from **fossil fuels to achieve net zero by 2050**
 - Aligning with scientific recommendations to limit global temperature rise.

Key Points from the Dubai Consensus

- The resolution calls on parties to transition away from fossil fuels in energy systems, **aiming for net zero by 2050**.
- Notably, the term "transitioning" replaces earlier drafts' **stronger language of "phase-out."**

Compromise Agreement

- The text **reflects a compromise between developed and developing nations**, addressing greenhouse gas emissions while considering proportional contributions based on historic responsibility.

COP28 Negotiations

- **COP28 goes into overtime, with the final agreement** released after continued wrangling.
- The **negotiation process involves all 198 signatories** agreeing on every line in the text.

Delayed Closure

- The final text is cleared, but proceedings extend for **six more hours as countries express their opinions on specific aspects of the text**.
- Grievances are expected **to influence future deliberations**.

Eye on emissions

Global Stocktake was the first COP where countries were expected to account for actions undertaken to fulfil obligations under the Paris Agreement — of keeping emissions on track to below 2°C and endeavour to 1.5°C



2019 levels) when it should have been 43%

- Greenhouse gas emissions have to be reduced sharply and this will require tackling the main culprit — fossil fuels

- Countries must implement systems to adapt to present and future effects of climate change by 2030

- The stocktake found that steps taken by Parties were inadequate and even in the most optimistic case, would see a 5% reduction in emissions by 2030 (over

Achievements and Funding Commitments

Loss and Damage Fund

- **Commitments worth \$750 million are secured for the Loss and Damage Fund**, aiding countries in addressing climate disasters.

Decarbonization Pledges

- **Pledges worth \$85 million, outside the main COP text**, aim to accelerate both private and public sector decarbonization efforts globally.

Signal to Fossil Fuel Industry

- The consensus signals a **formal notice to the fossil fuel industry that its old business model is expiring**, fostering a shift toward renewable energy and efficiency.
- **The term "transitioning" is seen as a compromise**, diluting earlier calls for a "phase-out" of fossil fuels.
- Some countries, like **Saudi Arabia, oppose explicit references to "phasing out fossil fuels."**

Adaptation and Financing Challenges

Broken Financing Promises

- **The Dubai Consensus acknowledges a matter of "deep regret"** regarding the partial realisation of the 2009 commitment to mobilise \$100 billion annually between 2020 and 2025.

Carbon Space and Adaptation

- Critics highlight the need for increased focus on adaptation in a world where **temperatures may rise by 2 degrees C or more.**
- **Developing countries emphasise the importance** of preserving carbon space for their development.

135. Road fatalities rise in India, despite global drop: WHO - The Hindu

Relevance: Reports and Indices

News:

- The **World Health Organization (WHO)** reported a **5% reduction in global road traffic deaths**, totaling 1.19 million annually between 2010 and 2021.
- This positive trend is attributed to a **decrease in 108 United Nations member countries.**

Prelims Takeaway

- Global Status Report on Road Safety 2023
- World Health Organization

India's Situation

- **In India, road traffic fatalities rose** from 1.34 lakh in 2010 to 1.54 lakh in 2021 according to the 'Global Status Report on Road Safety 2023'.
- This indicates a **15% surge, in contrast to the global trend**, raising concerns about road safety measures in the country.

Global Success Stories

- **Ten countries**, including Belarus, Denmark, Japan and the UAE, achieved over a **50% reduction in road traffic deaths.**
- Additionally, **35 countries demonstrated notable progress**, reducing fatalities by 30% to 50%.

Age Group Impact

- **Road crashes were the leading cause of deaths** among individuals aged five to 29 years in 2019.
- Overall, **road traffic accidents were the 12th leading cause of deaths** when all ages are considered, with two-thirds occurring among people of working age.

Population Growth vs Fatality Rate

- Despite a **global population growth of nearly 14 billion (13%)** in the past decade, the **road traffic fatalities reduced by 5%.**
- This resulted in a **decline in the road fatality rate** from 18 per 1 lakh people in 2010 to 15 per 1 lakh in 2021, marking a **16% reduction.**

Vehicle Growth Impact

- The **global motor vehicle fleet expanded by 160%** during the same period.
- Therefore, **annual fatality rates per 1 lakh vehicles fell** from 79 deaths to 47 deaths, which is a **41% reduction.**

Regional Distribution

- 28% of global road traffic deaths occurred in the WHO's South-East Asia Region
- 25% in the Western Pacific Region
- 19% in the African Region

- 12% in the Region of the Americas
- 11% in the Eastern Mediterranean Region
- 5% in the European Region

Inequality in Low- and Middle-Income Countries

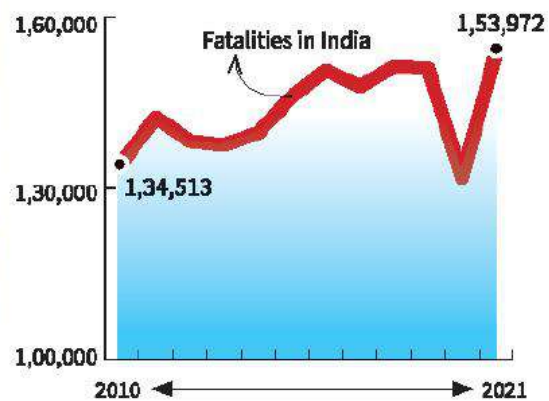
- **Nine out of 10 road traffic deaths** occurred in **low- and middle-income countries**, where the **risk of death is three times higher** than in high-income countries.
- Despite having **just 1% of the world's motor vehicles**, low-income countries bear a disproportionate share of fatalities.

Deadlier roads

Road traffic-related fatalities in India reached a 11-year high in 2021 after a dip in 2020



Killer roads: Charred wreckage of a car after an accident in Bareilly. PTI



136. 'New Delhi Declaration' on artificial intelligence adopted - The Hindu/ GPAI members back equitable AI access in New Delhi declaration - Indian Express

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- After extensive discussions the **'New Delhi Declaration' of the Global Partnership on Artificial Intelligence (GPAI)** was officially adopted.
- The ministerial declaration underscores the **commitment to principles for responsible and trustworthy AI** rooted in democratic values and human rights.

Prelims Takeaway

- Global Partnership on Artificial Intelligence (GPAI)
- 'New Delhi Declaration' of GPAI

Key Commitments of the 'New Delhi Declaration'

- It **commits member countries to address concerns** related to
 - Misinformation, disinformation, unemployment, transparency, fairness, protection of intellectual property and personal data, and threats to human rights and democratic values.
- The Minister of State for Electronics and Information Technology emphasized GPAI's inclusive nature, encouraging **participation from developing countries**.
- Japan stressed the core mission of including **lower and middle-income countries**, with **Senegal joining the GPAI steering committee**.
- The declaration highlights India's contribution to GPAI by **incorporating agriculture as a thematic priority**.

- It embraces the use of AI innovation to **support sustainable agriculture**.
- The GPAI member countries expressed the intent to discuss **leveraging OECD resources** to devise optimal solutions for the **deployment and governance of AI for the benefit of people globally**.

Global Partnership on Artificial Intelligence (GPAI)

- It is a **multi-stakeholder** initiative focusing on **AI research and practical applications**.
- **Objective:** To bridge the gap between theory and practice on AI by supporting cutting-edge research and applied activities on AI-related priorities.
- Launched in **June 2020 with 15 members**, it has now expanded to 28 member countries and the European Union.
- Membership in GPAI is **open to all countries**, including emerging and developing countries.
- **India** is one of the **founding members of GPAI**.
- Its **secretariat** is hosted at the **Organisation for Economic Co-operation and Development (OECD), Paris**.

Organisation Structure

- It has a **Council and a Steering Committee**.
- It has **two Centres of Expertise** namely in Montreal and Paris.
 - These Centres of Expertise **facilitate GPAI's four working groups** and their research and practical projects, across various sectors and disciplines.
- The working groups will **initially focus on four themes** viz.
 - Responsible AI
 - Data Governance
 - the Future of Work
 - Innovation and Commercialization

137. Indian Forest & Wood Certification Scheme launched to promote Sustainable Management of forests and agroforestry - PIB

Relevance: Conservation, environmental pollution and degradation

News:

- Recently, the **Ministry of Environment, Forests, and Climate Change** introduced the **Indian Forest and Wood Certification Scheme**.

Prelims Takeaway

- Indian Forest and Wood Certification Scheme
- Agroforestry

Indian Forest and Wood Certification Scheme

- It is a national initiative aimed at **encouraging sustainable forest management and agroforestry practices** in India.
- It offers **voluntary third-party certification** designed to **promote sustainable forest management and agroforestry** in the country.
- **Parties involved:** State Forest departments, individual farmers, Farmer Producer Organizations engaged in agroforestry and farm forestry, as well as other wood-based industries in the value chain.

Three Key Certifications

- **Forest Management Certification**
 - Aligned with the Indian Forest Management Standard, it includes 8 criteria, 69 indicators, and 254 verifiers, integral to the National Working Plan Code 2023.
- **Tree Outside Forest Management Certification**
 - Specifically designed for agroforestry, focusing on responsible practices beyond traditional forest areas.
- **Chain of Custody Certification**

- Ensuring the traceability of wood-based products through the supply chain, emphasising responsible sourcing.

Oversight and Governance

- The **Indian Forest and Wood Certification Council**, comprising stakeholders from esteemed institutions and government bodies, will **oversee the scheme**.
 - The council includes representatives from Indian Council of Forestry Research and Education, Forest Survey of India, Quality Council of India, Indian Institute of Forest Management, Ministries of Agriculture and Farmers' Welfare, and Ministry of Commerce and Industry.
- The **Indian Institute of Forest Management, Bhopal**, is designated as the scheme operating agency and is responsible for the **overall management of the Scheme**.

Accreditation Process

- The **National Accreditation Board for Certification Bodies**, under the Quality Council of India, will **accredit certification bodies**.
- These bodies will **conduct independent audits to assess entities' adherence** to the prescribed standards within the scheme.

138. Amrit Technology For Removal Of Arsenic And Metal Ions From Water - PIB

Relevance: Achievements of Indians in science & technology; indigenization of technology and developing new technology.

News:

- Recently, the IIT-Madras developed a technology called **AMRIT (Arsenic and Metal Removal by Indian Technology) technology**.

Prelims Takeaway

- AMRIT Technology
- Arsenic

AMRIT Technology

- IIT-Madras has developed the 'AMRIT' technology for the **removal of Arsenic and Metal ions from water**.
- It uses **nano-scale iron oxy-hydroxide** to selectively **remove arsenic and metal ions** when water is passed through it.
- This technology is recommended for **both domestic and community use**.
- It has been recommended by the erstwhile '**Standing Committee**' of the **Department of Drinking Water and Sanitation** for the examination of the best technologies concerning water and sanitation.

Arsenic

- It is a **natural component of the earth's crust** and is **widely distributed throughout the environment** in the air, water and land.
- It is **highly toxic in its inorganic form**.
- In its most stable elemental state, arsenic is a **steel-grey, brittle solid with low thermal and electrical conductivity**.
- Although **some forms of elemental arsenic are metal-like**, the element is best classified as a nonmetal.
- It has been recognized as a **toxic element** and is **considered a human health hazard**.
- Long-term intake of arsenic contaminated water leads to **arsenic poisoning or arsenicosis**, with cancer of skin, bladder, kidney or lung or diseases of skin.
- The World Health Organisation's provisional guideline **value for arsenic in drinking water is 0.01 mg/l**.
- **Permissible limit of arsenic in India** in absence of an alternative source is **0.05 mg/l**.

139. ISRO to launch Chandrayaan-4 to bring back samples from Moon in 4 yrs: Somanath - Indian Express

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- ISRO's chairperson, while elaborating **ISRO's Vision 2047**, stated that ISRO has planned to **launch Chandrayaan-4 to bring back samples from the Moon** in four years.

Prelims Takeaway

- SPADEX Experiment
- Bharatiya Antariksh Station
- Chandrayaan-4

Bharatiya Antariksh Station and Vision 2047

- ISRO also plans to launch the **first module of India's space station, by 2028**.
- Bharatiya Antariksh Station will **conduct experiments using robots**.
- The Prime Minister has set ambitious goals for ISRO, urging the **establishment of a space station by 2035 and sending a man to the Moon by 2040**.

SPADEX Experiment

- In the next three to four months, ISRO will launch the **SPADEX experiment, demonstrating autonomous docking capability**.
- Docking is a process where **two spacecrafts are aligned in a precise orbit and joined together**.
- Two satellites connected to **each other will separate, travel and then autonomously dock back together**, showcasing a crucial technology for sustained human spaceflight.

Technological Developments for Sustained Human Spaceflight

- ISRO is actively working on developing technologies for **sustained human presence in space**.
- This includes a **robotic arm for sample collection**, mechanisms for **docking in various orbits**, and the **ability to re-enter Earth's atmosphere** without burning up.
- These technologies will be **crucial for the Gaganyaan mission**, which will send astronauts to low Earth orbit.

Inflatable Habitat Module and Collaborations

- ISRO is developing an inflatable habitat module for **astronauts to walk around and conduct experiments**.
- It is also in discussions with NASA and the European Space Agency to **create a common interface** between the Indian space station and those of other countries.
- This collaboration would enable joint work and the **possibility of docking with the International Space Station (ISS)**.

Next Generation Launch Vehicle (NGLV)

- To support the space station initiative, ISRO is working on **designing the Next Generation Launch Vehicle (NGLV) with a capacity to carry 16 to 25 T to low Earth orbit**.
- This marks a significant step toward **achieving the ambitious goals set by ISRO for future space exploration**.

140. Exports shrink again, trade deficit narrows as imports fall faster - The Hindu/ Imports shrink 4.3%, trade deficit narrows in November - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- According to the data released by the commerce department recently, **exports declined 2.8 per cent year-on-year to \$33.9 billion** in November
- Imports dipped 4.3 per cent to \$54.5 billion**, leading to the narrowing of the trade deficit at \$20.6 billion.

Prelims Takeaway

- Balance of Payment
- Trade Deficit

Trade deficit

- A trade deficit is an amount by which the **cost of a country's imports exceeds its exports.**
- It's one way of measuring **international trade, and it's also called a negative balance of trade.**
- A trade deficit can be calculated by **subtracting the total value of a country's exports from the total value of its imports.**

Surprise drop

Nov. trade deficit narrows beyond expectations to \$20.58 bn after the decline in imports outpaces the contraction in exports

■ November's trade deficit is 6.7% narrower on a year-on-year basis and 31.2% less than October's tally

■ Trade deficit this fiscal 12.1% narrower than in same period last fiscal when commodity prices shot up



■ Commerce Secretary Barthwal asserts trade is not one-way traffic and should be seen in a global context

141. Unnati becomes the first entity to list on the social stock exchange - The Hindu

Relevance: Economy

News:

- Recently, the **SGBS Unnati Foundation (SUF)** became the **first entity to list on the Social Stock Exchange (SSE)** marking a new era in impact investing.

Prelims Takeaway

- Social Stock exchange

SGBS Unnati Foundation (SUF)

- SUF, a not-for-profit organization established in 2011, specializes in youth training, having trained over 45,000 individuals.
- SUF's listing involves Zero Coupon Zero Principal (ZCZP) instruments with a face value of ₹1 each, credited to donors' demat accounts.
- These instruments, non-tradable, signify zero value for donors after one year, coinciding with the completion of SUF's project.

Social Stock Exchange

- Introduced in the **FY20 Budget**, SSEs functions as a **separate segment within the existing stock exchange.**
- It helps social enterprises **raise funds from the public** through its mechanism **promoting impact investing and sustainability.**
- It would serve as a medium for enterprises to **seek finance for their social initiatives, acquire visibility and provide increased transparency.**
- **Retail investors** can only invest in securities offered by **for-profit Social Enterprises (SEs)** under the main Board.
- In all other cases, only **institutional investors and non-institutional investors** can invest in securities issued by SEs.

Eligibility Criterias

- Any social enterprise, Non-Profit Organisation or For-Profit Social Enterprises, that establishes its **primacy of social intent** can get registered or listed.
- As per the SEBI's regulation, the **enterprises must be serving to**
 - eradicate either hunger, poverty, malnutrition and inequality
 - promoting education, employability, equality, empowerment of women and LGBTQIA+ communities
 - working towards environmental sustainability
 - protection of national heritage and art or bridging the digital divide etc.

Regulatory Framework and Transparency

- Listing on SSE imposes checks and balances, necessitating **disclosure of fundraising purposes and providing a timeline for fund utilisation.**
- **Social audit firms will audit annual impact reports,** enhancing transparency and accountability.

142. Global coal demand likely to decline 2.3% by 2026: IEA - The Hindu

Relevance: Conservation, environmental pollution and degradation

News:

- According to a report by the **International Energy Agency (IEA)**, the **global coal demand is expected to decline by 2026.**
- This is despite the **global coal production reaching an all-time high** in the current year.

Factors Influencing Decline

- The **shift towards renewables** contributes to the expected decline.
- China and India play crucial roles, with **India being a "driving force" until 2026.**
- The IEA's expectations of a decline in coal demand is also premised **on a change in global climate.**
- The current El Nino conditions are expected to turn to **La Nina** and generally linked to **better rainfall during 2024-2026.**
- This will presumably translate to **greater hydropower output.**

Regional Variances in 2023

- **Global coal demand to rise by 1.4% in 2023**, exceeding 8.5 billion tonnes.
 - It will surpass 8.5 billion tonnes for the first time.
- EU and US demands are **expected to drop 20%.**
- However, **India and China see increases (8% and 5% respectively)** due to electricity demand and diminished electrical generation from hydropower.

Renewable Energy Impact

- An anticipated **increase in low-cost solar photovoltaic deployment** is expected to aid renewable power generation.
- Also, the **nuclear generation is expected to see moderate increases** in China, India, and the EU.
- **Coal-fired generation** is likely to be pushed into a **downward trajectory from 2024.**

China's Role

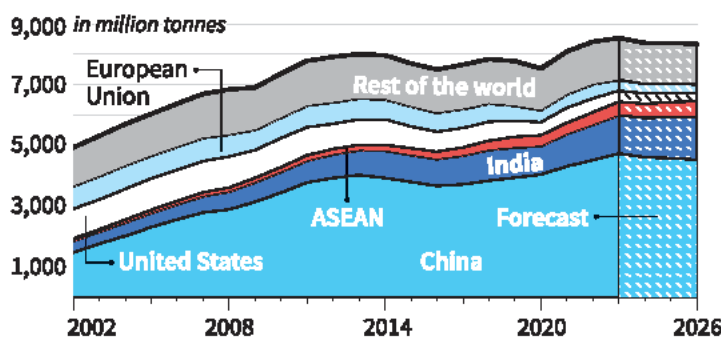
- China currently accounts for **over half of the world's coal demand.**
- **Major expansion of renewable energy in China** is expected to lead to a fall in coal demand from 2024, plateauing in 2026.
- Overall, this will result in a **2.3% fall in global coal demand by 2026.**

Prelims Takeaway

- International Energy Agency (IEA)
- Paris Agreement
- UNFCCC

Coal consumption

Global coal consumption is expected to remain over 8 billion tonnes through 2026. The chart shows the appetite for the fuel



Environmental Impact

- Coal is the most important **energy source** for electricity generation, steel-making, and cement production.
- However, it is also the **largest source of carbon dioxide (CO2) emissions** from human activity.
- Despite forecasts of decline, **global consumption is expected to remain above 8 billion tonnes through 2026.**

Climate Policy Agreements

- **Reduction of unabated coal use is a key agreement** among countries under the United Nations Framework Convention on Climate Change.
- To limit temperature rise to 1.5°C by 2050, **coal emissions must decline by nearly 95% between 2020-2050.**

Global Production Trends

- **China, India, and Indonesia, the top coal producers,** are expected to break output records in 2023.
- These three countries now account for **more than 70% of the world's coal production.**

143. 'Write-off era over, asset quality review served banking well' - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- Recently, the Chairman of SBI stated that the **era of loan write-offs is over.**
- **Asset Quality Review (AQR)** initiated in 2015 under the former RBI Governor Raghuram Rajan has been **beneficial for the banking system.**

Prelims Takeaway

- Asset Quality Review (AQR)
- Reserve Bank of India

Impact of AQR and Improved Lending

- The AQR led to the **identification of a substantial amount of bad loans.**
- **Over Rs 10 lakh crore of bad loans were written off** by Indian banks in the past five years.
- Gross non-performing assets (NPAs) **have decreased by almost 46%** in the last five years.
- **Lending by banks has become more informed and improved** after the AQR, **strengthening risk management and underwriting practices.**

Initially Faced Criticism

- The AQR had **initially come under criticism** by some economists in the government.
- They argued that AQR **slowed down economic growth** and **underestimated the extent of bad loans.**

Positive Signs in the Indian Economy

- He said that the **Indian economy is in a "golden phase."**
- The **agriculture sector showed increased economic activity** in the second half.

- **Positive trends** are also seen in the Fast-Moving Consumer Goods (FMCG) sector and **across various industries**.

Global Economic Comparison

- He also highlighted that the **Indian economy is performing well globally**.
- **A significant portion of our GDP is our domestic economy**.
- He also emphasised the **challenges in international markets** which are **impacting India's international trade**.

144. On PSU capex push: Oil, highways, rail set the pace; steel, green power trail - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- Public sector **oil and gas companies** in India are **ahead in achieving their cumulative capital expenditure (capex)** targets for the current financial year ending March (FY24).

Prelims Takeaway

- Renewable energy
- Capex

Key Points

- In the first eight months of FY24, 10 oil and gas **PSUs achieved 76.6% of their cumulative capex target** of Rs 1.07 lakh crore, spending Rs 81,828 crore.
- **The focus on capacity expansion** in exploration, production, refining, petrochemicals, fuel retail, and gas infrastructure aims to meet the country's rising energy demand.

Government's Emphasis on Capex

- **Increasing government capex** is a crucial strategy **to stimulate economic growth** and attract private sector investment.

Comparison Across Ministries

- The **petroleum ministry ranks third** in terms of PSU capex targets, with the railway and roads transport and highways ministries leading.
- Only the **shipping ministry exceeds the petroleum ministry** in percentage achievement, with Cochin Shipyard achieving 87.6% of its Rs 300 crore capex target.

Challenges in Other Infrastructure Ministries

- Ministries like **renewable energy, steel, and power face challenges** in meeting their capex targets.
- Solar Energy Corporation of India (**SECI**) **achieved only 14.2%** of its Rs 2,051 crore capex target by November.

145. Afghanistan, left out of COP-28, hopes for inclusion in COP-29- The Hindu

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- **Afghanistan**, highly vulnerable to climate change, was **omitted from the COP-28** climate summit for the third consecutive year.

Prelims Takeaway

- Green Climate Fund
- UNFCCC

Key Points

- **Exclusion follows the Taliban's takeover of Kabul in 2021**, with no formal recognition from foreign governments and no seat at the U.N. General Assembly.

Reasons for Exclusion

- **Taliban's restrictions on women**, particularly the ban on girls and women from high school and universities, cited as the primary reason for international isolation.
- **Lack of recognition** of the **Taliban leadership** by any foreign government contributes to Afghanistan's exclusion from UN talks.

UNFCCC Decision and Taliban Response

- The UNFCCC COP Bureau **deferred a decision on Afghanistan's representation** at the November 2022 meeting.

Impact on Women and Food Insecurity

- Women, constituting a significant portion of the 20 million Afghans **facing severe food insecurity**, are adversely affected.

Climate Funds and Projects on Hold

- Taliban-led Afghanistan **unable to access key UN climate funds**, including the Green Climate Fund (GCF).
- **GCF had approved nearly \$18 million** for a sustainable energy project **before the Taliban takeover**, now on hold for risk review.

146. Scientists find hydrogen cyanide, key molecule for life formation, in Saturn's icy moon Enceladus - The Print

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- Scientists analyzing data from **NASA's Cassini spacecraft** have discovered **hydrogen cyanide** in the oceans of Saturn's icy moon, **Enceladus**.

Prelims Takeaway

- Cassini Spacecraft
- Enceladus
- Hydrogen Cyanide

Cassini Spacecraft

- Launched by NASA in 1997, it orbited Saturn from 2004 to 2017.
- Measured the structure of Saturn's atmosphere and rings, as well as how they interact with the planet's moons.
- Discovered six named moons and revealed Enceladus and Titan as promising locations to search for extraterrestrial life.

Enceladus

- Enceladus, one of Saturn's moons, features a **white, streaky surface** made of **water ice**.
- Beneath the frozen crust lies a **warmer, salty ocean** covering the entire moon.
- The moon is characterized by its **active water volcanism**, where plumes of water, ice, dust, and gases are ejected into space, contributing to the **replenishment of one of Saturn's rings**.

Significance of Findings

- Detection of hydrogen cyanide, along with other compounds like methanol, ethane, and oxygen, indicates a more **diverse** and **dynamic ocean chemistry**.
- The presence of hydrogen cyanide suggests the **existence of unidentified energy sources** within the moon.
- It indicates the potential for **more powerful energy processes** than those associated with previously detected biosignature molecules like methane.
- Higher energy levels can contribute to the formation of complex and versatile molecules, playing a role in the **origins of life**.

Implications for Habitability

- The presence of organic molecules and hydrogen cyanide strengthens the case for **Enceladus's habitability**.
- The moon's oceans are known to contain **essential compounds for life**, and the discovery adds evidence supporting its potential to host life.
- The study suggests that Enceladus meets **basic requirements for habitability** and may have the necessary elements for the **formation of complex biomolecules**.
- **Future Studies** are expected to provide more detailed information about the **moon's composition** and **current conditions**.

147. Centre launches forest certification scheme to counter foreign agencies - Indian Express

Relevance: Conservation, environmental pollution and degradation

News:

- Amid global concerns about **deforestation** and **illicit timber trade**, the Indian government has launched its **own certification scheme**.
- The **Indian Forest and Wood Certification Scheme (IFWCS)** aims to validate entities **adhering to sustainable practices** in forest management and product production.

Prelims Takeaway

- Indian Forest and Wood Certification Scheme
- Glasgow Climate Change Conference

Background

- **Private foreign certification agencies** have been operating in the Indian market for two decades.
- However, **concerns about their integrity** were raised in a global investigation by the International Consortium of Investigative Journalists (ICIJ).
- The government's move to establish its certification scheme follows these concerns and the need for **improved market regulation**.

Development of New Standards

- **New standards** for forest management have been developed, encompassing **eight criteria**, 69 indicators, and 254 verifiers.
- These standards are **mandatory for all forest divisions** in the country, providing a basis for the IFWCS.
- While **obtaining certification is not mandatory** for forest divisions, adherence to the standards makes them eligible.
- The certification scheme is expected to **enhance trust, transparency** and **international acceptance** of Indian forest-based products.

Scope of IFWCS Certification

- It will offer certification for **ensuring traceability of forest products** throughout the supply chain for
 - sustainable forest management
 - management of trees outside forests (e.g. plantations)
 - chain of custody
- **Caters to various entities** such as forest management units, corporations, wood-based industries, tree growers, traders, saw millers, exporters and importers of wood-based and non-timber forest products.

International Context

- Given that Europe and the US are **major export markets** for India's forest-based products, the IFWCS is crucial.
- **Tightening import rules** in these markets, driven by **concerns about deforestation and climate change**, underscore the need for reliable certification.
- The global commitment at the Glasgow climate change conference in 2021 to **halt and reverse deforestation by 2030** adds urgency to India's efforts in sustainable forest management.

148. Citing cost, time overrun, Uttarkashi project said no to separate rescue tunnel - Indian Express

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- The recent incident in the Silkyara-Barkot tunnel in Uttarkashi district may not have arisen had the **project not ruled out the option of a separate escape tunnel**, according to **environmental impact assessment (EIA) report**

Prelims Takeaway

- Char Dham Project
- Silkyara tunnel

Key Highlights of the reports

Rejected Safety Measures

- The EIA report dismissed the option of a "separation wall" with "egress openings" for emergency escape.
- During construction, the design was altered for better space utilization and traffic safety, placing a divider in the middle.
- A tunnelling expert argues that only a **separate evacuation tunnel** could have helped in a total blockage situation.
- The project rejected the idea of a separate evacuation tunnel due to **concerns about cost, time overrun, and low traffic volume.**

Char Dham Project and Environmental Clearance

- The Silkyara-Barkot tunnel is part of the Char Dham project **exempted from environmental clearance for linear projects under 100 km.**
- The **High Powered Committee (HPC)** was formed in August 2019 to guide the EIA process.
- In September 2020, 37 rapid EIA reports were submitted, including one **rejecting the twin-tunnel option chosen by the Silkyara tunnel.**

149. RBI tightens norms for lenders investing in AIFs - Indian Express/ RBI tightens norms for AIF investments - The Hindu

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- The Reserve Bank of India (RBI) directed **banks, non-banking financial companies (NBFCs) and other lenders not to invest** in any scheme of alternative investment funds (AIFs)
- It is limited to the AIFs which have downstream investments in a debtor company.

Prelims Takeaway

- Non-banking financial companies (NBFCs)
- Alternative investment funds (AIFs)

Directives of RBI

- Objective :** Aimed at **curbing evergreening** of stressed loans,
- An AIF means any **fund established or incorporated in India** which is a privately pooled investment vehicle
 - It collects funds from sophisticated investors, whether Indian or foreign, for investing it in accordance with a defined investment policy for the benefit of its investors.
 - Regulated entities (REs) make investments in units of AIFs as part of their regular investment operations.
- RBI, however, said that **certain transactions of REs** involving AIFs raise regulatory concerns.
- These transactions entail **substitution of direct loan exposure of REs** to borrowers, with indirect exposure through investments in units of AIFs," the RBI said in a notification.

Evergreening of loans

- It is a process whereby a **lender tries to revive a loan that is on the verge of default or in default** by extending more loans to the same borrower.
- As of December 19, there were 1,220 **AIFs registered** with the Securities and Exchange Board of India (**SEBI**).

Downstream investments

- It means the actual investment by the AIF in a company using the funds they have raised from AIF investors.
- The need to make 100 per cent provision on such outstanding debt is **likely to be a big deterrent to such irregularities** in transactions

150. 'Exchange rate flexibility is a key shock absorber for India' - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- IMF directors agree that **India's exchange rate flexibility** should be the primary defence against external shocks, with foreign exchange interventions.
- The IMF has reclassified **India's de facto exchange rate regime to a "stabilised arrangement"** from "floating" for December 2022 to October 2023.

Prelims Takeaway

- International Monetary Fund
- Reserve Bank of India

Key Points

- There is a divergence of views between the **authorities and IMF staff regarding the exchange rate stability.**

India's Economic Overview

- India's foreign exchange reserves reached \$606.8 billion, **reflecting increased capital inflows.**
- The IMF's Article IV consultation with India concludes that **the economy has shown robust growth**, with employment surpassing pre-pandemic levels.
- The formalisation of the economy has progressed, and the financial sector remains **strong and largely unaffected by global financial stress in early 2023.**

Current Account Deficit and Fiscal Concerns

- The **current account deficit for FY 2022-23** widened due to post-pandemic recovery and external shocks.
- The budget deficit has eased, **public debt remains elevated, and fiscal buffers need rebuilding.**

Economic Projections and Monetary Policy

- Growth is expected to remain strong, with real GDP projected to grow at 6.3% in FY24 and FY25.

Structural Reforms and Inclusive Growth

- **Comprehensive structural reforms** are suggested to leverage India's favourable demographics, promoting job-rich, inclusive, and greener growth.

151. States can borrow an extra ₹2 lakh crore this fiscal year - The Hindu/ Govt allows extra borrowing ceiling of over 60,000 crore to states for NPS - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

Prelims Takeaway

- Finance Commission
- National Pension System (NPS)

Borrowing leeway

States may be able to borrow about ₹2.04 lakh cr. over their net borrowing limits for the year, Finance Ministry indicates

■ Govt. had allowed 22 States to borrow almost ₹61,000 crore on top of net borrowing ceilings of 3% of GDP, as of October 27

■ Fifteenth Finance Commission mooted additional borrowing space of 0.5% of States' GDP as performance-based incentive for power sector reforms



152. WHO tags JN.1 strain as 'variant of interest' as Covid cases rise - Indian Express

Relevance: Science and Technology- developments and their applications and effects in everyday life.

News:

- The World Health Organization (WHO) recently designated the Covid-19 sub-variant **JN.1** as a "**variant of interest**" due to its rapid spread.
- Current vaccines are reported to continue protecting against severe disease and death caused by JN.1.

JN.1 Virus

- JN.1 cases were reported globally, including the US, European countries, Singapore, and China.
- Recently, a case of the JN.1 subvariant was identified in **Kerala** during the continuous **routine surveillance** conducted by **INSACOG**.
- The JN.1 virus is a **novel variant of Omicron subvariant BA.2.86** (called Pirola) with an additional spike protein mutation.
- It has the capability to **spread rapidly and evade immunity**, highlighting the need for continued monitoring and caution.
- **Symptoms:** fever, runny nose, sore throat, headache and mild gastrointestinal symptoms.

Classification of Variants

- **Variant of Interest**
 - Variant with a genetic capability that affects characteristics of the virus such as disease severity, immune escape, transmissibility and diagnostic escape.
 - A VOI causes a consequential volume of community transmission.
- **Variant of Concern**
 - A variant of concern translates to a rise in transmissibility, an increase in fatality and a significant decrease in effectiveness of vaccines, therapy and other health measures.
- **Variant of High Consequence**
 - Variants with clear evidence that prevention measures or medical countermeasures have significantly reduced effectiveness.
- **Variants Under Investigation (VUI)**

Prelims Takeaway

- Variant of Interest
- JN.1 Virus
- World Health Organization (WHO)
- INSACOG

- Variants considered to have epidemiological, immunological, or pathogenic properties that warrant formal investigation.

153. Taxpayers can withdraw court cases, 'approach GST Tribunals for faster rulings' - The Hindu

Relevance: Economy

News:

- The Finance Minister recently announced that taxpayers can **shift their GST-related cases** from High Courts and the Supreme Court to the upcoming **GST appellate tribunals** for quicker resolutions.

Concerns about GST Rates

- The Finance Minister acknowledged concerns about **glitches, difficulties** faced by taxpayers, and the **complexity of multiple tax rates**.
- She mentioned that **rationalization of rates** is part of a larger exercise undertaken by the GST Council, with a **Group of Ministers** formed for this purpose.

GST Appellate Tribunals (GSTATs)

- The **Central Goods and Service Tax Act, 2017, Section 109** mandates for the constitution of a GSTAT and its Benches.
- The GSTAT will be the **specialized appellate authority for resolving disputes under the GST laws**.
- The Central Goods and Services Tax (Second Amendment) Bill, 2023 aligns **eligibility and age norms** for members and the President of Appellate Tribunals with the Tribunal Reforms Act of 2021.

Composition

- The GST Tribunal will have **one principal bench in New Delhi**.
- Each state will have **two tribunal benches**.
 - One located in the state capital
 - Other located in key commercial centers based on state inputs.
- **North-eastern states** could opt for **one bench for 2-3 states** and an **additional bench for very far-flung areas**.
- **Members: Two technical and two judicial members each**, with equal representation from the Centre and states.
- However, all four members would not sit for hearing each case.
 - It depends on the threshold or value of dues involved.

Significance

- Expedite the **process of adjudication**
- **Provide tax certainty** especially in recurring litigative issues.
- Help in **bolstering business sentiments** and **ease of doing business** in the country.

Prelims Takeaway

- GST Appellate Tribunals
- GST Council
- Tribunal Reforms Act, 2021

154. 'Objective of aligning inflation with 4% target far from assured' - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- Recently, an article published in the Reserve Bank of India's (RBI) monthly bulletin observed that **If inflation is not brought back to the 4 per cent target** there are chances that the **growth may get affected**

Key highlights of report

- Consumer price index (CPI) -based inflation for FY24 is expected to be at **5.4 per cent**
- On a real-time basis, **inflation is hurting discretionary consumer spending** and this, in turn, is holding back topline growth of manufacturing companies as well as their capex, it had said.

Prelims Takeaway

- Consumer Price Index
- Wholesale Price Index

- On economy, despite significant global headwinds, the **Indian economy remained the fastest growing** major economy in 2023.
- The RBI, in its monetary policy, **revised the real GDP projection** for FY24 to 7 per cent from 6.5 per cent earlier.

Wholesale Price Index

- It measures the changes in the **prices of goods sold and traded** in bulk by wholesale businesses to other businesses.
- It is published by the **Office of Economic Adviser, Ministry of Commerce and Industry**.
- The base year of All-India WPI has been **revised from 2004-05 to 2011-12 in 2017**.

Consumer Price Index

- It measures price changes from the **perspective of a retail buyer**.
- It is released by the National Statistical Office (NSO).
- The CPI calculates the **difference in the price of commodities and services** such as food, medical care, education, electronics etc, which Indian consumers buy for use.

155. Disinflation may pave way for interest rate cut: RBI officials - The Hindu

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

Prelims Takeaway

- Disinflation
- Inflation
- Economic Activity Index

Rate cycle turning

RBI officials believe a slowdown in global growth and easing inflation will cause central banks to cut interest rates

- Officials say that despite global headwinds, India remained the fastest growing major economy in 2023
- India's domestic financial markets had been boosted by the abiding strength of the real economy, they add
- RBI's economic activity index (EAI) now forecasts GDP growth for the third quarter of 2023-24 at 6.7%



156. What are solid-fuel missiles, and why is North Korea developing them?- Reuters

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- **North Korea test-fired** an intercontinental ballistic missile (ICBM) powered by solid fuel

Solid-fuel missiles

- Solid-fuel missiles **do not need to be fuelled immediately** ahead of launch.
- They are often easier and safer to operate, and **require less logistical support**.
- They are **harder to detect and more survivable** than liquid-fuel weapons.
- Solid propellants are a **mixture of fuel and oxidiser**.
- **Metallic powders** such as aluminium often serve as the fuel, and ammonium perchlorate, which is the salt of perchloric acid and ammonia, is the most common oxidiser.

Prelims Takeaway

- Liquid Fuel Missiles
- Solid Fuel Missiles

- **The fuel and oxidiser are bound together** by a hard rubbery material and packed into a metal casing.

Solid Fuel VS Liquid Fuel Missiles

- Liquid propellants provide greater propulsive thrust and power, but **require more complex technology and extra weight**.
- **Solid fuel is dense and burns** quite quickly, generating thrust over a short time.
- **Solid fuel can remain in storage** for an extended period without degrading or breaking down - a common issue with liquid fuel.

157. Indian Air Force successfully testfires 'SAMAR' air defence missile system at Exercise Astrashakti- Economic times

Relevance: Various Security forces and agencies and their mandate.

News:

- In a major success for its in-house design and development efforts, the Indian Air Force has successfully **test fired its SAMAR air defence missile system**

SAMAR Air Defence Missile System

- Indian Air Force developed SAMAR air defence missile system **during exercise AstraShakti-2023** at Air Force Station Suryalanka held recently
- Surface to Air Missile for Assured Retaliation (SAMAR) is a **short-range air-defence system**.
- It has been developed by a unit under the **IAF's Maintenance Command**.
- The system is credited with a maximum range of 10–12 km and is **used against low-flying aerial targets**.
- It can engage aerial threats with missiles operating at a **speed range of 2 to 2.5 Mach**.
- The SAMAR-1 system uses the IAF's existing inventory of shelf-life-expired Russian Vympel R-73E infrared-guided air-to-air missiles (AAMs) for the **surface-to-air role**.
- Missile launcher had an **electro-optic system visible**.

AstraShakti-2023

- It is an air force exercise that is held at **Suryalanka Air Force Station in Andhra Pradesh**.
- **Objective:**
- To serve as a platform to **showcase the advanced capabilities of indigenous weapon systems**.
- To underscore India's commitment to exporting its home-grown weapon systems to the global market.

Prelims Takeaway

- AstraShakti-2023
- SAMAR Air Defence Missile System

158. National Culture Fund (NCF) Received Rs. 3.70 Crore From Non-Government Sources During Last Five Years- PIB

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

News:

- Recently, the Union Minister for Culture, Tourism And Development informed in the Lok Sabha that the **National Culture Fund (NCF) received Rs. 3.70 Crore From Non-Government Sources** during the last five Years.

National Culture Fund

- It was set up by the Government of India as a **Trust under the Charitable Endowment Act, 1890** through a Gazette Notification in 1996.
- It was established as a **funding mechanism and it is different from** the existing sources and patterns of funding for the arts and culture in India.
- It will enable institutions and individuals **to support arts and culture directly as partners** with its government.

Objective:

Prelims Takeaway

- Charitable Endowment Act, 1890
- National Culture Fund

- It aims to **mobilise extra resources** through Public-Private Partnership (PPP) towards promoting, protecting & preserving India's Cultural Heritage.

Composition:

- It is managed and administered by a **Council and an Executive Committee to actualize those policies.**
- The Council is **chaired by the Union Minister of Culture** and has a maximum strength of 24 including both the Chairman and Member Secretary.
 - The purpose for this structure is to **increase non-government representation** in the decision-making process.
 - The donations to the national Culture Fund will be **eligible for tax benefit under the Income Tax Act.**

159. In big AI push, Centre to step up compute capacity, offer free services to startups - Indian Express

Relevance: Science and Technology- developments and their applications and effects in everyday life.

News:

- The Indian government is embarking on an **Artificial Intelligence (AI) Mission** to develop its own '**sovereign AI.**'
- **Objective:** To enhance computational capacity in India and provide compute-as-a-service to Indian startups.
- The government envisions AI as a **crucial economic driver** and plans to leverage the impending AI boom for **economic growth.**

Compute Capacity Building

- The government intends to **build computational capacity** through both government initiatives and public-private partnerships.
- India aims to build a compute capacity
 - Between 10,000 and 30,000 GPUs (graphic processing units) under the PPP model
 - An additional 1,000-2,000 GPUs through the PSU Centre for Development of Advanced Computing (C-DAC)
- The government is **exploring incentive structures** to encourage private companies to set up computing centres in the country.
 - These include capital expenditure subsidies, operational expense incentives and usage fees.

Public-Private Partnership Model

- **Objective:** To create a digital public infrastructure (DPI) from the GPU assembly.
- This will allow startups to **utilize computational capacity** at a **lower cost** without investing in GPUs, a significant expense for AI operations.
- In addition, the government also aims to make **datasets available to Indian startups.**
- A draft **National Data Governance Framework Policy** proposes the creation of an **India Datasets platform.**
 - It makes non-personal and anonymized datasets accessible to startups and researchers.
- The government is considering directives for big tech companies to **share anonymized personal data** with the India Datasets platform.

Prelims Takeaway

- Sovereign AI
- Compute Capacity Building
- Public-Private Partnership Model
- National Data Governance Framework Policy

160. Centre approves deployment of CISF in Parliament complex - The Hindu/ CISF to be brought in for Parliament security - Indian Express

Relevance: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

Prelims Takeaway

- Parliament Security Service

News:

- CISF

- The Union Home Ministry has approved the **deployment of the Central Industrial Security Force (CISF) in the Parliament** complex, according to a government order.

Key Points

- The decision comes days after the **security breach in the Parliament**.
- While access control such as frisking and scanning the baggage is the responsibility of the Delhi police, the Parliament Duty Group (PDG)
- An armed component of the Central Reserve Police Force (CRPF) is deployed in **case an armed intervention is required**.
- The **Parliament Security Service** under the Lok Sabha Speaker is the overall in-charge of security.

Central Industrial Security Force

- The CISF is India's central armed police force functioning under the **control of the ministry of home affairs**.
- It was created in **1969 to provide security cover to the Public Sector Enterprises (PSEs)**, which, in those times, occupied the commanding heights of the Indian economy.
- Its mandate is extended beyond PSEs to include **critical infrastructure and private firms in the country**.
- CISF is also providing security cover to the **protected persons under Z Plus, Z, X, Y categories**.
- CISF raised the Special Security Group (SSG) for this purpose.

161. 'Rating firms' biases raise developing nations' funding costs' - The Hindu/ Rating agencies too subjective, loaded against India, need reform: CEA - Indian Express

Relevance: Important International institutions, agencies and fora- their structure, mandate.

News:

- The **Chief Economic Advisor's (CEA)** office in the Union Ministry of Finance calls for **urgent reforms and transparency** in sovereign credit rating processes.

Prelims Takeaway

- World Bank
- Rating Agencies

Critique of Rating Agencies:

- **Alleges methodologies of Fitch, Moody's, and S&P** heavily favor developed countries.
- It highlights **over-reliance on non-transparent** and subjective qualitative factors.

Impact on Developing Countries

- **Qualitative parameters weigh more** than actual macroeconomic fundamentals for developing countries like India.
- Despite India's economic growth, credit rating remains static at BBB- for 15 years.

Recommended Reforms

- Urges **reliance on a country's debt repayment history** to determine 'willingness to pay.'
- Suggests focusing on authentic, verifiable information and using qualitative judgement as a last resort.

Call for Transparency

- Criticises the **opaqueness** of rating agencies' **methodologies**.
- Emphasises the **need for transparency** and reforms in the ratings process.

Bias in Ratings

- Claims subjective assessments **favour advanced economies**, leading to over 95% of credit rating downgrades for developing countries.
- **Questions heavy reliance on World Bank's** Worldwide Governance Indicators (WGIs) for determining governance and institutional quality.

162. RBI releases draft omnibus framework for SROs, seeks views - The Hindu**Relevance:** Economy**News:**

- The RBI recently published a **draft omnibus framework**, seeking comments from stakeholders.
- The framework aims to establish guidelines for recognizing **Self-Regulatory Organizations (SROs)** to enhance industry standards for regulated entities.

Prelims Takeaway

- Self-Regulatory Organisation (SRO)
- Reserve Bank of India (RBI)

Rationale for the Framework

- **Rapid growth of Regulated Entities (REs)** in terms of number and scale, coupled with increased **adoption of innovative technologies**.
- This growth has made effective regulation challenging for the RBI.
- The draft framework outlines **broad parameters** applicable to any SRO.
 - It covers objectives, responsibilities, eligibility criteria, governance standards, application process and basic conditions for SRO recognition.

Self-Regulatory Organisation (SRO)

- An SRO is a **non-governmental organisation** that sets and enforces rules and standards relating to the **conduct of entities** in the industry.
- SROs typically **collaborate** with all stakeholders in **framing rules and regulations**.
- SROs already **recognized by the RBI** will continue under their existing terms and conditions unless the new framework is specifically extended to them.

Role and Responsibilities

- SROs are expected to pursue overarching objectives that **contribute to the betterment** of their represented sector.
- SROs are tasked with developing and adhering to **self-regulatory principles** conducive to sector advancement.
- SROs should establish a comprehensive **code of conduct** for members and **minimum benchmarks** and conventions for professional market conduct among members.

Protection of Interests

- SROs are also required to **protect the interests of customers**, depositors, participants, and other stakeholders within the sector.
- They are envisioned as **allies of the RBI** in ensuring compliance, sector development, stakeholder protection, fostering innovation and **detecting early warning signals**.

Transparency and Governance

- SROs are expected to operate with transparency, professionalism, and independence to **build confidence in the sector's integrity**.
- Compliance with the highest governance standards is deemed essential for effective SRO functioning.

163. Centre considers compensation for exporters hit by UK, EU carbon tax - Indian Express**Relevance:** Conservation, environmental pollution and degradation**Prelims Takeaway**

- Carbon Border Adjustment Mechanism (CBAM)
- Common But Differentiated Responsibilities (CBDR)

News:

- The Indian government is considering **various relief measures** to mitigate the impact of the **Carbon Border Adjustment Mechanism (CBAM)**.
- Introduced by the European Union (EU) and the UK, it is expected to **affect India's iron, steel and aluminium exports** worth \$8-\$9 billion.

- World Trade Organization (WTO)
- Fit for 55

Carbon Border Adjustment Mechanism (CBAM)

- CBAM is part of the "**Fit for 55 in 2030 package**", which is the EU's plan to reduce greenhouse gas emissions by **at least 55% by 2030** compared to 1990 levels.
- It is a policy tool aimed at **reducing Carbon Emissions** by ensuring that imported goods are subject to the **same carbon costs** as products produced within the EU.
- Both argue that CBAM aims to **prevent carbon leakage**, the movement of production and emissions from one country to another
- CBAM came into effect on October 1, 2023, while the actual tax imposition by the EU is set for 2026.
- The UK has announced its version of CBAM, effective by 2027.

Relief Measures

- To **support affected exporters and maintain global competitiveness**, the government is exploring compensation options.
- Possible **measures include** seeking a longer transition time, repatriation of duties and collaborative mechanisms to enhance product competitiveness.

Challenges and WTO Dispute

- India has challenged the CBAM at the **World Trade Organization (WTO)**, arguing that it violates **special and differential treatment (SNDT) provisions**.
 - The provisions advocate longer time periods for developing nations to implement agreements.
- Addressing such measures in **Free Trade Agreements (FTAs)** poses challenges.

Against Environmental Law

- Trade experts criticize CBAM for potentially **violating the principle of international environmental law**.
 - The law states that all states are responsible for addressing global environmental destruction yet not equally responsible.
- **Common but differentiated responsibilities (CBDR)** assumes all the more significance for India that barely contributes **one-seventh of world's carbon emission**.
- Concerns are raised about the EU's expectations on export pricing discipline, hindering India's ability to **incentivize green energy consumption** in its industry.

164. Sebi issues paper on instant settlement of trades, seeks views - Indian Express

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- The SEBI recently proposed a shift towards a **same-day settlement cycle (T+0)** in two phases as an initial step towards **instantaneous settlement** in the equity cash segment.

Prelims Takeaway

- Securities and Exchange Board of India (SEBI)
- T+0 settlement

The Phases

- **Phase 1**
 - In the first phase, SEBI envisions an **optional T+0 settlement cycle for trades** until 1:30 pm.
 - Settlement of funds and securities would be **completed on the same day** by 4:30 pm.
- **Phase 2**
 - The second phase proposes an **optional immediate trade-by-trade settlement** (funds and securities), with trading extending until 3:30 pm.

Scope and Implementation

- SEBI had **previously shortened settlement cycles** to T+3 in 2002, T+2 in 2003, and introduced T+1 settlement in 2021, fully implemented from January 2023.
- To initiate T+0 settlement, SEBI suggests making it available **initially for the top 500 listed equity shares** in three tranches based on **market capitalization**.
- The exchanges shall coordinate to publish a **common list of securities and calendar** for migration under T+0 settlement.

Surveillance Measures

- Surveillance measures applicable to T+1 settlement cycles would **extend to T+0**.
- Securities under **trade-for-trade settlement** and those trading in **periodic call auction** sessions would not be eligible for T+0.
- It is observed that a high percentage of retail investors **bring upfront funds and securities** before placing the order, emphasizing the **readiness for an instant settlement mechanism**.

Significance

- Implementing T+0 settlement aims to provide **instant receipt of funds and securities**, reducing the risk of settlement shortages.
- It strengthens **investor protection**, enhances **control over securities and funds**, and **reduces risk exposure for Clearing Corporations**.

165. Sea turning red in Puducherry | NGT panel inspects beach, to submit report in 15 days - Indian Express

Relevance: Conservation, environmental pollution and degradation

News:

- Recently, the principal Bench of the **National Green Tribunal (NGT)** has formed a committee to analyse the **cause of the Promenade beach turning red** in Puducherry.

Prelims Takeaway

- National Green Tribunal (NGT)
- Red Tide

Possible Causes

- The report suggests that the red color may be **due to algal bloom** and reddish tinge was observed at various patches along the coastline.
- Concerns were raised about **industrial pollution** or 'Red Tide' as potential factors behind the phenomenon.

Red Tide

- It is a common term used for a **harmful algal bloom**.
- Harmful Algal Blooms, or HABs, occur when colonies of algae **grow out of control** and **produce toxic or harmful effects**.
- The name "red tide" comes from the fact that **overgrowth of algae** can **cause the colour of the water to turn red**.

Causes

- **Chemicals** from farming, factories, sewage treatment plants and other sources can **become dissolved in water** on the land.
- This water, called runoff, eventually **flows into the ocean** and can cause algae to **grow faster**, leading to red tides.

Impacts

- Some of the algae that cause a red tide **produce powerful toxins**, which are harmful chemicals that can kill fish, shellfish, mammals and birds.
- If people eat fish or shellfish that have been in the water with toxic algae, they will also ingest the toxins, which can make them sick.

166. Two drone-dropped packets with arms, cash seized near LoC in Jammu- The Hindu

Relevance: Challenges to internal security through communication networks, role of media and social networking sites in internal security challenges, basics of cyber security; money-laundering and its prevention.

News:

- **Two drone-dropped packets** containing arms and cash were seized in a joint operation by the Army and the police from a village **near the Line of Control in Akhnoor sector in Jammu**

Drones as an Emerging Threat

- The **potential use of drones in a terrorist incident** or attack against a critical infrastructure and soft targets is a growing concern for law enforcement agencies worldwide
- **The attack was meticulously planned**, and a drone was used to drop bullets and an improvised explosive device (IED) for the attack

Indigenous drone development

- **Nishant was one of the DRDO's first tactical UAV** projects, later upgraded to a wheeled version, Panchi.
- The **indigenous MALE UAV development program** of the DRDO reached a milestone in March 2022
- **the Rustom-II crossing at an altitude of 27,500 ft** with 18 hours of endurance

Prelims Takeaway

- Rustom-II
- Indigenous MALE UAV development program

167. At least 85% of power from VGF-funded Battery Energy Storage Systems projects to be first offered to Discoms before making it available for others: Union Power and New & Renewable Energy Minister - PIB

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- The Union Minister for Power and New & Renewable Energy, has announced the **approval of a scheme for Viability Gap Funding (VGF)**

Objective:

- to facilitate the development of Battery Energy Storage Systems (BESS) with a capacity of 4,000 megawatt-hours (MWh).

VGF Provision

- The **Central Government will provide VGF up to 40%** of the capital cost for BESS.
- Selection of public and private sector entities through a bidding process conducted by Implementing Agency(ies) following Scheme and Bidding Guidelines.

Project Approval Timeline

- Projects under the scheme will be approved over a **three-year period (2023-24 to 2025-26)**.

Power Distribution

- At least 85% of power from **VGF-funded BESS projects will be offered to Distribution Companies** (Discoms) before making it available to others.
- The scheme aims to **benefit consumers** through efficient power distribution.
- The Cabinet has previously approved the **Viability Gap Funding Scheme for BESS development**.
- The cost of energy storage discovered in bids is **10.18 rupees per kilowatt-hour**.
- **VGF and Production Linked Incentive (PLI)** for battery energy storage are expected to reduce the overall cost of storage.

Prelims Takeaway

- VGF
- Production Linked Incentive

168. 'India's Russian crude imports averted havoc in global oil market' - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- In response to Russia's invasion of Ukraine in February 2022, **India significantly increased its imports of Russian crude oil**
- **The Ministry of Petroleum and Natural Gas** emphasised the crucial role played by Indian refiners in absorbing 1.95 million barrels per day of Russian oil.

Prelims Takeaway

- crude oil
- Russia

Key Points

- The Ministry of Petroleum and Natural Gas highlighted the **significance of India's role in stabilising** the crude oil market amidst geopolitical tensions.
- The ministry representative warned that if **India had not absorbed Russian oil**, the deficiency in the market could have led to a significant increase in crude oil prices, possibly by \$30-40 per barrel.
- **India, as the world's third-largest consumer of crude oil**, relies on imports for over 85% of its requirements.
- **The country's refining capacity exceeds 250 million tonnes** per annum, highlighting its substantial role in the global energy landscape.
- **Russia**, initially a marginal player in India's oil imports, became **the top supplier as Western nations boycotted Russian oil** post the Ukraine invasion.

Impact of western sanction on India

- **Indian refiners took advantage** of deep discounts offered by Russia, leading to a shift in supplier dynamics.
- India asserted its sovereignty, stating that it pursued oil imports based on what was **economically beneficial for the country and the world**.
- The move to buy discounted Russian crude irked Western nations **aiming to isolate Russia economically**.
- **Western sanctions on Russia** posed challenges for Indian refiners in terms of payments, logistical arrangements, and insurance for oil shipments.
- The ministry highlighted difficulties faced by Indian banks in processing payments for Russian oil purchases in dollars.
- **Indian refiners faced challenges** with banks seeking proof that the oil price, excluding delivery-related costs, adhered to the imposed price cap.

169. Railway officers to be trained in disaster management; academy, institute to give training - The Hindu

Relevance: Disaster Management

News:

- Following the **Odisha train tragedy**, the Ministry of Railways has introduced **mandatory disaster management training** for railway officers.
-
- **Objective:** To enhance disaster response and address shortcomings identified in the investigation of the Odisha incident.

Training Incorporation

- **Disaster management** is now an **integral part of the training module** for railway officers at the induction/foundation course level.
- It is also included in refresher or mid-career training programs for continuous skill development.
- Following organisations will **collaborate** to impart the comprehensive training program.
 - The National Academy of Indian Railways (NAIR) in Vadodara
 - The Indian Railway Institute of Disaster Management (IRIDM) in Bengaluru

Enhanced Emphasis on Disaster Management

Prelims Takeaway

- Gati Shakti Vishwavidyalaya (GSV)
- Disaster Management Training

- The decision follows recommendations from the **Commissioner of Railway Safety**, who investigated the Odisha train accident.
- He emphasized the need for **faster initial responses to disasters**.
- He also called for a **review of the railway's coordination** with disaster management agencies.

The Concerns

- The Railway Board has instructed NAIR to **transfer all its assets**, including buildings and infrastructure, to the **Gati Shakti Vishwavidyalaya (GSV)**.
- It has led to **confusion** among training institutes' Directors-General/ Directors.
- It also raises **questions about the approval process** for training programs and the role of the Vice-Chancellor of GSV.

Current Railway Response Focus

- The railways have **Accident Relief Trains** stationed at major junctions across the network.
- They are equipped with **manpower** and **resources** to reach accident sites promptly.
- However, the primary focus has traditionally been on **restoring rail traffic**, with reliance on state and central agencies for **relief and rescue operations**.

170. Risk of stagflation receding: RBI officials - The Hindu

Relevance: Economy

News:

- Reserve Bank of India (RBI) officials believe that the **risk of stagflation** in India has **decreased** from 3% in August to 1% based on available data, using two approaches.

Prelims Takeaway

- Stagflation
- Inflation

Stagflation

- A situation characterized by simultaneous **increase in prices** and **stagnation of economic growth**.
- It is described as a **situation in the economy** where
 - the growth rate slows down
 - the level of unemployment remains steadily high
 - the inflation or price level remains high at the same time.
- It is **dangerous** for the economy.
 - In a usually low growth situation, central banks and governments try to stimulate the economy, but they tend to elevate prices and cause inflation.
 - So, it cannot be adopted when inflation is already running high, which makes it difficult to break out of the low growth-high inflation trap.

The Approaches

- **First Approach:** Stagflation risk was assessed based on phases of **lower economic growth** coinciding with **high inflation**.
- **Second Approach:** Used the '**at-risk**' frameworks i.e. "Inflation at Risk" (IaR) and "Growth at Risk" (GaR) by employing **quantile regression** to assess the likelihood of stagflation.

Historical Context

- **Major determinants of stagflation risk in India:** Supply-side shocks coupled with tighter financial conditions and relatively higher depreciation of the domestic currency.
 - This is based on data from Q1:1996-97 to Q2:2023-24
- Stagflation risks were **higher during specific episodes** like the Asian Crisis, Global Financial Crisis, taper tantrum and the COVID-19 pandemic.
- **Tight domestic monetary policies** and **sluggish global growth** led to economic slowdowns in certain periods.
- Stagflation risks post-COVID-19 have subsided due to **eased financial conditions, contained currency depreciation, and stable domestic fuel prices**.
- Latest estimates, assign a **very low probability** of only 1% to the risk of stagflation

Global Context

- Globally, **higher commodity prices** and the **US dollar's appreciation** post-pandemic raised concerns of stagflation.
- **Delays in monetary normalization** post-pandemic also raised worries about potential costly stagflation.

Factors Contributing to Lower Stagflation Risk in India

- **Commodity Prices:** Recent commodity price shocks are not as severe and persistent as in historical episodes.
- **Central Bank Focus:** Global central banks' focus on maintaining price stability and healthier financial positions of institutions contribute to well-anchored long-term inflation expectations.
- **Macroeconomic Conditions:** Favourable macroeconomic conditions, including eased financial conditions, moderate currency depreciation, and stable crude oil prices, have helped reduce the risk of stagflation.

171. First rupee payment for oil to UAE: India looks for more deals, no targets, say officials - Indian Express**Relevance:** Economy**News:**

- India's recent **payment in rupees for crude oil** purchased from the UAE marks a significant step in India's efforts to **make rupee a global player**.
-
- India is exploring similar deals with other suppliers, aiming to **cut transaction costs** by settling trades in rupees.

The Background

- With over **85% dependence on oil imports**, India pursues a **three pronged strategy** of
 - sourcing from the cheapest available suppliers
 - diversifying the sources
 - not breaching any international obligation
- India has already signed a **rupee settlement agreement with the UAE** and made payments to the Abu Dhabi National Oil Company (ADNOC) in Indian rupees.

Rupee's Role and Encouraging Oil Exporters

- The **US dollar** has been the **default currency** for crude oil imports for decades, offering liquidity and lower hedging costs.
- However, to **boost the rupee's role in cross-border payments**, RBI allowed banks to settle trades in rupees with 18 countries.
- India is encouraging major oil exporters like the UAE and Saudi Arabia to accept the Indian currency for trade settlements.
- India aims to **reduce dollar demand** and make its economy **less vulnerable to global currency shocks**.

Challenges and Caution

- The **internationalization of the rupee** is a gradual process and should not lead to **increased costs** or be **detrimental to trade**.
- While smaller trades in rupees pose fewer challenges, larger transactions require careful consideration.

Parliamentary Committee Report

- It noted that there were **not many takers** for the Indian rupee in the preferred currency.
 - During FY 2022-23, no crude oil imports by oil PSUs were settled in Indian rupee.
- Crude oil suppliers expressed concerns about **fund repatriation**.
- They also highlighted **high transactional costs** associated with currency conversion and exchange fluctuation risks.

Prelims Takeaway

- Internationalisation of Rupee

172. India, Oman free trade agreement likely in January - Indian Express

Relevance: Effect of policies and politics of developed and developing countries on India's interests, Indian diaspora.

News:

- Negotiations for the **Comprehensive Economic Partnership Agreement (CEPA), a free trade agreement (FTA)** between India and Oman, are advancing rapidly.
- The pact is expected to be signed in January 2024, **with both sides expressing eagerness to conclude the deal.**

Prelims Takeaway

- Gulf Cooperation Council
- Oman

Oman as a Key Trading Partner

- **Oman is India's third-largest export destination** among Gulf Cooperation Council (GCC) countries.
- The proposed FTA aims to enhance economic ties and boost Indian exports to Oman
 - where over 80% of goods currently face import duties averaging 5%, with few trade barriers.

Potential Impact on Exports

- Indian goods, including **gasoline, iron and steel, electronics, and machinery**, worth USD 3.7 billion, are expected to receive a significant boost in Oman post the FTA.
- Export sectors like motor gasoline, iron and steel products, electronics, machinery, textiles, plastics, boneless meat, essential oils, and motor cars are projected to benefit from duty elimination.

Gulf Cooperation Council (GCC) Relations

- India implemented a trade agreement with the UAE in May 2022, and **both Oman and the UAE are members of the GCC.**
- **The FTA with Oman aligns with India's strategy** to strengthen economic ties with GCC nations.

Economic Indicators for Oman

- Oman's GDP is approximately USD 115 billion, **with a population of 5 million.**
- The country's **higher per capita income (USD 25,060) compared to India's (USD 2,370)** suggests potential demand for more diversified and higher-value goods and services from India.

Trade Statistics

- **Bilateral trade between India and Oman** reached USD 12.39 billion in 2022-23

173. ICMR initiates steps for non-invasive testing method to tackle anaemia - The Hindu

Relevance: Issues relating to development and management of Social Sector/Services relating to Health, Education, Human Resources.

News:

- Despite efforts under the Anaemia Mukt Bharat (AMB) program, **anaemia remains a significant public health issue in India.**

Key Highlights

- The Indian Council of Medical Research (ICMR) in Delhi is seeking innovative solutions and has invited Expressions of Interest (EoI) from eligible organizations

Key Initiatives Under AMB

- The AMB program emphasises **testing and treating anaemia through digital methods** and point-of-care treatment, with a particular focus on pregnant women and school-going adolescents.
- The **effective implementation of the test and treat strategy requires a simple, non-invasive hemoglobinometer** acceptable to all, especially young children.

Call for Validation of Devices

- While several **'Make in India' non-invasive hemoglobinometer devices** are available
- The ICMR emphasises **the need for validation to establish accuracy, bias, and precision** before recommending their use in the AMB program.

Prevalence of Anaemia in India

- According to the **National Family Health Survey 5 (2019-21)**, the prevalence of anaemia in various groups is as follows: 25.0% in men (15-49 years), 57.0% in women (15-49 years),

Prelims Takeaway

- National Family Health Survey
- Indian Council of Medical Research

ICMR's Role and Objectives

- ICMR aims to conduct a validation study of non-invasive hemoglobinometer devices through a hospital-based clinical study, comparing them against the gold standard method of hemoglobin measurement.
- The organisation will provide technical support, including study planning, protocol development, results analysis, outcome assessment, and product improvement.

Collaboration and Support

- ICMR, through its institutes, will facilitate and support the research and development/clinical study of new technology/products in collaboration with companies/institutions.
- The collaboration details and timelines will be decided later under the agreement in a professional and mutually agreed-upon manner.

174. Renewable energy investments to surge 83% to \$16.5 billion in 2024 - The Hindu

Relevance: Conservation, environmental pollution and degradation, environmental impact assessment.

News:

- India will witness a more than **83% increase in investments in renewable energy (RE)** projects to about \$16.5 billion in 2024
 - as the country focuses on energy transition to reduce carbon emissions, Power Ministry estimates show.

Prelims Takeaway

- National Green Hydrogen Mission
- solar and wind energy

Key Highlights

- This is in line with **India's ambitious target of having 500 GW** of renewable energy by 2030
- its resolve to reduce overall power **generation capacity from fossil fuels to less than 50%**.
- India has committed a **net zero emission target by 2070**.
- The Union Power and New & Renewable Energy Minister had said **65% of power generation capacity would be from non-fossil fuels by 2030** and that it would be higher than the set target of 50%.
- Apart from solar and wind energy, **India has increased its focus on green hydrogen** in a big way to reduce dependence on fossil fuels
- **India is a diesel-based economy** - most commercial, passenger vehicles and freight services use diesel as their main fuel.
- In January this year, the **Union Cabinet approved the National Green Hydrogen Mission** with an outlay of ₹19,744 crore.

175. India, Russia ink 'key' pacts related to Kudankulam nuclear power plant - The Hindu/ India, Russia sign pacts on future units of Kudankulam plant - Indian Express

Relevance: Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

Context:

- **India and Russia** bolstered their enduring partnership with the signing of agreements related to the **Kudankulam nuclear power plant**.

Prelims Takeaway

- Kudankulam Nuclear Power Plant
- Nuclear Energy

Key Agreements

- Agreements encompassed the **construction of future units** at the Kudankulam nuclear power plant, built with Russian technical assistance.
- The signing ceremony included agreements in nuclear power and **extended to areas** such as medicines, pharmaceutical substances, and medical devices.

Kudankulam Nuclear Power Plant

- The Kudankulam nuclear power plant, situated in **Tamil Nadu**, began construction in March 2002 with Russian collaboration.
- The first power unit started operating at its designed 1,000 MW capacity in February 2016, and the plant is expected to **reach full capacity by 2027**.
- It is the **single largest nuclear power station** in India.

Progress Across Multiple Domains

- The External Affairs Minister also highlighted **substantial progress** in trade, finance, connectivity, energy, civil aviation, and nuclear cooperation during the bilateral talks.
- There was an emphasis on **exploring new opportunities** and discussions aimed at achieving a more **balanced and sustainable cooperation** across different dimensions.
- The External Affairs Minister described Russia as a "**special partner**" in **critical areas** such as defence, nuclear power, and space.

176. Ministry sends social media firms advisory to regulate deepfakes - The Hindu

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Prelims Takeaway

- Deepfakes
- Artificial Intelligence

News:

- The MeitY recently issued the second advisory to social media platforms urging compliance with the **Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021**.
- This advisory specifically targets the rise of fabricated '**deepfake**' content generated using Artificial Intelligence.

The Mandate

- The advisory emphasizes the need for social media intermediaries to **take stronger actions** against deepfake content.
- It instructs platforms to clearly and precisely **communicate prohibited content**, especially as outlined in **Rule 3(1)(b) of the IT Rules**, to users.
- The government has been actively engaging with platforms to address concerns related to misinformation and deepfake content.

Deepfakes

- Deepfakes, present since 2017, refer to **manipulated** videos, audios or images created using a form of **artificial intelligence** called deep learning.
- Initially popularised through a Reddit incident, deepfake technology has evolved, enabling even **unskilled individuals** to produce fake content.
- They are created using a technique called **generative adversarial networks (GANs)**, which involve **two competing neural networks** viz. a generator and a discriminator.
 - The generator tries to create fake images or videos that look realistic.
 - The discriminator tries to distinguish between the real and the fake ones.
- To ensure that the deepfake created is as close to real as possible, creators use a **large database** of source images.
- '**Unsupervised learning**' makes it challenging for other software to identify deepfakes. A **230% increase** in deepfake usage by cybercriminals and scammers has been observed.

Laws in India Regarding Deepfakes

- India's **IT Rules 2021** mandate the **removal** of reported fake or deepfake content by intermediary platforms **within 36 hours**.
Section 66D of the Information Technology Act of 2000 deems **online impersonation illegal**.
- The rules also prohibit hosting content **impersonating** others.

177. Milli-second burst detected by AstroSat in new high magnetic field neutron star can help understand such stellar entities - PIB

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

Prelims Takeaway

- Magnetars
- AstroSat

News:

- AstroSat recently detected **bright sub-second X-ray bursts** from a newly discovered neutron star known as **SGR J1830-0645**.
- This neutron star belongs to the rare category of **magnetars**, characterised by an ultrahigh magnetic field.

AstroSat

- It is **India's first dedicated multi-wavelength space observatory**.
- **Objective:** To study celestial sources in X-ray, optical, and UV spectral bands simultaneously.
- **Launched by ISRO in September 2015**, AstroSat has played a crucial role in astronomical research.
- It was launched into a **650 km orbit inclined at an angle of 6 degrees to the equator**.
- The minimum useful life of the AstroSat mission is **around 5 years**.
- It carries a total of **five scientific payloads**.
 - It enables imaging and studying the temporal and spectral properties of galactic and extragalactic cosmic sources in a wide range of wavelengths on a common platform.

AstroSat's Contributions

- The **Cadmium Zinc Telluride Imager (CZTI)** on AstroSat has been **pivotal in capturing GRBs**.
- CZTI specializes in **high-energy, wide-field imaging**, covering an energy range from 20 keV to over 200 keV.
- Its capability to **detect Compton scattered events** allows the study of X-ray polarization, enhancing the understanding of GRBs.

Key Findings

- The research identified SGR J1830-0645 as a unique magnetar **displaying an emission line in its spectra**.
- The presence of emission lines in the spectra raises **questions about their origin**.
- It suggests possibilities such as **fluorescence of iron, proton cyclotron line feature** or instrumental effects.
- The energy-dependence observed in SGR J1830-0645 differs from other magnetars, with **two thermal blackbody emission components** originating from the neutron star's surface.

Magnetars

- Magnetars are **neutron stars with magnetic fields** over one quadrillion times stronger than Earth's.
- Magnetars also release vast amounts of energy in the form of **flares, X-rays and gamma-ray bursts**.
- They are therefore associated with **extreme events** in the universe, making them perhaps the most bizarre objects in the cosmos next to black holes.
- SGR J1830-0645, discovered in October 2020, is a relatively **young and isolated magnetar** with intriguing astrophysical conditions.

178. Centre hikes copra MSP by ₹250-₹300 per quintal for 2024 - The Hindu

Relevance: Issues related to direct and indirect farm subsidies and minimum support prices; Public Distribution System- objectives, functioning, limitations, revamping; issues of buffer stocks and food security; Technology missions; economics of animal-rearing.

News:

- The **Cabinet Committee on Economic Affairs (CCEA)**, which met here, has decided to **increase the minimum support price (MSP)** for copra.

Copra

- Milling copra is used to **extract oil**, while ball/edible copra is **consumed as a dry fruit** and used for religious purposes.
- **Kerala and Tamil Nadu** are major producers of milling copra, whereas **ball copra** is produced predominantly in **Karnataka**.
- A higher MSP will not only ensure **better remunerative returns** to the coconut growers
- It will **incentivise farmers to expand copra production** to meet the growing demand for coconut products both domestically and internationally
- National Agricultural Cooperative Marketing Federation of India Ltd. (**NAFED**) and National Cooperative Consumers' Federation (**NCCF**) will continue to act as **Central Nodal Agencies (CNAs)** for procurement of copra and de-husked coconut under Price Support Scheme (PSS).

Prelims Takeaway

- National Agricultural Cooperative Marketing Federation of India Ltd.
- Cabinet Committee on Economic Affairs

179. Indian banks' asset quality improved to decadal high: RBI - The Hindu

Relevance: Indian Economy and issues relating to planning, mobilization, of resources, growth, development and employment.

News:

- Reserve Bank of India (RBI) recently reported a **continued improvement** in Gross Non-Performing Assets (GNPA) ratio of Indian Scheduled Commercial Banks (SCBs).
- GNPA ratio drops to a **decadal low of 3.2%** at end-September 2023.

Contributing Factors

- During 2022-23, **45% reduction** in SCBs' GNPA attributed to **recoveries and upgradations**.
- SCBs' consolidated balance sheet records a 12.2% growth in 2022-23, driven by the **fastest expansion of bank credit** in over a decade.
- SCBs exhibit double-digit expansion in combined balance sheets, supported by **sustained credit growth**.
- Higher lending rates** and **lower provisioning requirements** contribute to improved profitability and strengthened capital positions.

On a strong footing

Higher lending rates, lower provisioning needs boosted banks' profitability and shored up capital positions during 2022-23, says RBI



■ Combined balance sheet of UCBs expanded by 2.3% in 2022-23

■ UCBs' capital buffers, profitability improved

■ NBFCs also showed better profitability, asset quality in 2022-23

■ Capital to Risk Asset Ratio higher than the norms for NBFCs

RBI's Outlook

- Banks should **guard against credit losses** despite higher capital buffers.
- Qualitative metrics** like enhanced disclosures, strong code of conduct, and clear governance structures will **contribute to financial stability**.
- Macroeconomic uncertainties persist globally, but the Indian banking system is well-positioned for **further improvement** with **better asset quality, high capital adequacy** and **robust profitability**.
- NBFCs should focus on **broadbasing their funding sources** and reduce overdependence on **bank funding**.
- Banks and NBFCs were urged to **strengthen balance sheets** through robust governance and risk management practices.

Non-Performing Assets or NPA

- A Non-performing Asset is a **loan or advance** for which the principal or interest payment has remained **overdue for a period of 90 days**.
 - The NPA ratio is the **proportion of such NPAs in total loans**.
- Banks are required to **classify NPAs** further into **Substandard, Doubtful and Loss assets**.
 - Substandard Assets that have remained NPA for a period less than or equal to 12 months.
 - Doubtful Assets if it has remained in the substandard category for a period of 12 months.
 - Loss Assets: According to the RBI, "Loss asset is considered uncollectible and of such little value that its continuance as a bankable asset is not warranted, although there may be some salvage or recovery value."

180. NGT court takes suo motu cognisance of T.N. gas leak - The Hindu

Relevance: Conservation, environmental pollution and degradation

News:

- The southern bench of the NGT recently initiated **suo motu** cognisance of an **ammonia gas leak** from Coromandel International Limited, a fertiliser manufacturing unit in Ennore.
- Residents in Periakuppam, Ernavur, and Burma Nagar report breathlessness, eye, and skin irritation following the leakage.

Prelims Takeaway

- National Green Tribunal (NGT)
- Central Pollution Control Board (CPCB)
- Ammonia

Serious Health Concerns

- TNPCB inspection reveals ammonia levels in the air at **3 ppm**, exceeding the allowed 24-hour average.
- Ammonia levels are categorized as '**severe**' by the Central Pollution Control Board (CPCB) at more than **1,800 microgram/m³ (24-hour average)**.
- High ammonia levels may have **acute respiratory effects** on healthy individuals and pose **serious health risks** for those with lung and heart diseases.

National Green Tribunal (NGT)

- It is a **specialised body** set up under the **National Green Tribunal Act (2010)** for **effective and expeditious disposal** of cases relating to **environmental protection** and **conservation** of forests and other natural resources.
- With the establishment of the NGT, India became the **third country** in the world to set up a **specialised environmental tribunal**, only after Australia and New Zealand
- NGT is guided by the **principles of 'natural justice'**.
- It is mandated to make **disposal of applications** or appeals finally **within 6 months of filing** the same.
- An order/decision/award of Tribunal is executable as a **decree of a civil court**.
- An **appeal** against order/decision/ award of the NGT lies to the **Supreme Court**, generally within **ninety days** from the date of communication.

The NGT deals with **civil cases** under the **seven laws** related to the environment, these include:

- The Water (Prevention and Control of Pollution) Act, 1974
- The Water (Prevention and Control of Pollution) Cess Act, 1977
- The Forest (Conservation) Act, 1980
- The Air (Prevention and Control of Pollution) Act, 1981
- The Environment (Protection) Act, 1986
- The Public Liability Insurance Act, 1991
- The Biological Diversity Act, 2002

Structure of NGT

- The Tribunal comprises the **Chairperson**, the **Judicial Members** and **Expert Members**.
- They shall hold **office** for a term of **three years** or till the age of **sixty-five** years, whichever is earlier
- They are not eligible for **reappointment**.
- The **Chairperson** is appointed by the **Central Government** in consultation with the **Chief Justice of India (CJI)**.
- A **Selection Committee** shall be formed by the **central government** to appoint the Judicial Members and Expert Members.

181. Pegasus spyware found on journalists' phones after Apple alert, says Amnesty - The Hindu

Relevance: Science and Technology- developments and their applications and effects in everyday life.

News:

- The Wire news website's founder editor and another journalist in India were **targeted with Pegasus spyware this year**
- The nonprofit Amnesty International's Security Lab was able to determine after testing their devices

Pegasus:

- It is a type of malicious software or malware **classified as a spyware**.
- It is designed to **gain access to devices**, without the knowledge of users, and gather personal information and relay it back to whoever it is that is using the software to spy.
- Pegasus has been **developed by the Israeli firm NSO Group** that was set up in 2010.

Recent Steps Taken in India:

- Cyber Surakshit Bharat Initiative
- National Cyber security Coordination Centre (NCCC)
- Cyber Swachhta Kendra
- Indian Cyber Crime Coordination Centre (I4C)
- Computer Emergency Response Team - India (CERT-IN)
- Information Technology Act, 2000
- Personal Data Protection Bill, 2019

Prelims Takeaway

- Cyber Surakshit Bharat Initiative:
- National Cyber security Coordination Centre (NCCC)
- Cyber Swachhta Kendra

Snooping saga

On October 30, Opposition MPs and journalists got alerts from Apple saying their phones were being targeted by 'state-sponsored attackers'. In 2021, many of these individuals were reportedly targeted by the Pegasus spyware



■ Pegasus, sold only to governments, allows attackers to extract data from even fully updated phones, and may give them access to real time mic and camera data

■ The Union government has not denied it bought or uses Pegasus. Trade data show that the Intelligence Bureau imported hardware in 2017 from the Pegasus maker, NSO Group, of Israel

182. COVID-19-hit MSMEs can tap new relief window from Jan. 1 - The Hindu

Relevance: Welfare schemes for vulnerable sections of the population by the Centre and States and the performance of these schemes; mechanisms, laws, institutions and Bodies constituted for the protection and betterment of these vulnerable sections.

Prelims Takeaway

- Vivad Se Vishwas
- MSMEs

News:

- **Centre has revived a scheme** and asked Micro, Small and Medium Enterprises (MSMEs) to settle their claims

Key Highlights

- Starting January 1, 2024, MSMEs can submit fresh claims under the **Vivad Se Vishwas I scheme**, which had originally admitted claims between mid-April to end of July this year.
- **The Vivad Se Vishwas (VSVS) I scheme** was aimed at providing relief to MSMEs unable to comply with central government contracts due to the pandemic.
- Launched on April 11, it covered all procurement contracts related to goods, services and works entered into by government departments.
- A similar VSVS II scheme was launched to resolve pending contractual disputes related to public procurement.
- Claims were accepted under the scheme till October, and more than 900 claims worth ₹20,000 crore were received.

Vivad Se Vishwas-II Scheme

- It is a **voluntary settlement scheme** to resolve long-standing contractual disputes involving government agencies.
- It is designed specifically for disputes where **the Arbitral Award is under challenge in a court. Arbitral Award is an award** that brings finality to the arbitral proceeding.
- Under the scheme, standardised terms will be introduced, and **graded settlement options** will be provided based on the level of pendency of the dispute.

183. FIU slaps Binance and other crypto exchanges with show-cause notices - The Hindu/ Binance, eight other offshore crypto firms get notice over PMLA non-compliance - Indian Express

Relevance: Economy

News:

- The **Financial Intelligence Unit (FIU)** in India recently issued notices to several cryptocurrency exchanges, including Binance.
- The notices pertain to allegations of "**operating illegally**" in India through **offshore entities** located in Seychelles, Cayman Islands and Switzerland.
- The notices, sent under the **Prevention of Money Laundering Act, 2002**, highlight concerns related to Anti Money Laundering/ Counter Financing of Terrorism (**AML-CFT**) compliance.

Prelims Takeaway

- Cryptocurrency
- Prevention of Money Laundering Act, 2002
- Financial Intelligence Unit (FIU)

Legal Framework and Compliance

- Cryptocurrency services were brought **under the AML-CFT framework in March 2023** under the Prevention of Money Laundering Act, 2002.
- Compliance with Indian law is emphasised, and the notices were issued under **Section 13** of the Prevention of Money Laundering Act, 2002.

Failure to Follow Reporting Obligations

- The FIU states that the companies **failed to fulfill "reporting obligations"** to the Indian government despite catering to a substantial part of Indian users.
- **Compliance involves** reporting suspicious activities, aligning with traditional banking institutions' practices.
- While compliance is **not solely contingent on physical presence** in India, the companies are expected to adhere to reporting obligations and regulatory frameworks.

Compliant Cryptocurrency Firms

- Out of 31 cryptocurrency firms, several offshore entities catering to Indian users reportedly **did not register and comply** with AML-CFT requirements.
- Compliance is seen as a crucial aspect of **ensuring transparency, preventing money laundering and countering terrorism financing**.

184. Sebi unveils norms for zero coupon instruments by NPOS - Indian Express**Relevance:** Economy**News:**

- The SEBI recently introduced a roadmap for the public issuance of '**zero coupon zero principal**' instruments by **not-for-profit organizations (NPOs)** and their **listing on the Social Stock Exchange (SSE)**.
- In **2022**, the government classified 'zero coupon zero principal instruments' **as securities**.

Key Guidelines

- The instruments will be issued in **dematerialized form** only and are **non-transferable**.
- **Minimum issue size:** Rs 50 lakh
- **Minimum application size:** Rs 10,000
- **Minimum subscription required:** 75% of the funds proposed to be raised.

Listing Procedure

- NPOs, through the **lead manager**, must file a **draft fundraising document** with the SSE.
- It must also file an application seeking in-principle **approval for listing the instrument** on the SSE.
- SSE will provide observations on the document **within 30 days** of filing or receipt of clarifications from the NPO.
- NPO will incorporate the observations of the SSE in a draft document and **file the final papers** to the SSE prior to opening the issue.
- The SSE will have to specify the details to be incorporated in the fundraising document.

Under Subscription Handling

- In case of under subscription, NPOs must detail how **balance capital will be raised** and the **potential impact** on achieving social objectives.
- If subscription is **less than 75% of the issue size**, funds will be refunded.

SSE Responsibilities

- Required to maintain the **details of the allotment** following the issuance of zero coupon and zero principal instruments by an NPO.
- **Specify the additional norms** with respect to the issue procedure, such as agreements with depositories, banks, ASBA-related matters, duration for public issuance, allocation methodology etc.

Prelims Takeaway

- Social Stock Exchange (SSE)
- 'Zero Coupon Zero Principal' instruments
- not-for-profit organizations (NPOs)

185. Indian Navy unveils new epaulettes for admirals - The Hindu**Relevance:** Statutory, regulatory and various quasi-judicial bodies.**News:**

- the Navy unveiled the new design of Admirals' epaulettes, with the octagon in the new design, drawn from the naval ensign

Key Highlights

- It was **inspired from rajmudra of Chhatrapati Shivaji** in what it said is the "true reflection of our rich maritime heritage"
- It reiterates the "resolve to do away with Ghulami ki Maansikta."
- The Navy is also **set to rename some of the ranks from the British nomenclature** to reflect an Indian connection.
- Adoption of the new design reaffirms our commitment to the two pillars of Panch Pran - Virasat Par Garv & Ghulami ki Mansikta se Mukti,"

Prelims Takeaway

- INS Vikrant
- Chhatrapati Shivaji

- In September 2022 during the commissioning of the **first indigenous aircraft carrier INS Vikrant**, Prime Minister unveiled a new Naval ensign.



186. Core sectors' growth skids to 6-month low in November - The Hindu/ Nov core sector growth falls to 6-month low - Indian Express

Relevance: Economy

News:

- India's **eight core sectors** recorded a growth rate of 7.8% in November, marking a **six-month low**.
- The **Index of Core Industries (ICI)** declined by **3.34%** from October levels, reaching its lowest point since March 2023.
- Reasons for Slowdown:** Base effects from the previous year, coupled with a slowdown in housing.

Prelims Takeaway

- Index of Eight Core Industries (ICI)
- Index of Industrial Production (IIP)

Slowing core

Output from eight core sectors grew 7.8% in November compared with 12% in October

■ Crude oil slipped back into contraction in Nov., sliding 0.4%

■ Fertilizer output grew 3.4%, the slowest in 3 months

■ Natural gas output growth slowed to 7.6%



■ Power generation growth slowed to 5-month low of 5.6% in November

Index of Eight Core Industries (ICI)

- It is a **production volume index** that measures the **collective** and **individual** production performances of **eight selected core industries**.

- **Core Industries:** Natural Gas, Coal, Refinery Products, Crude Oil, Cement, Electricity, Steel and Fertilizers.
- Termed as the core industries owing to their **strong impact on the general economic activities** and the other industrial activities.
- The calculation of the Index is done by using the **Laspeyres formula**.
- They comprise a total of **40.27%** of the total weight of the overall items that are included in the **Index of Industrial Production (IIP)**.
- The new IIP series has revised the **base year** for the ICI to **2011-12** from the initial base of 2004-05.
- **Published** by the **Office of the Economic Adviser (OEA)**, Ministry of Commerce and Industry.

187. New Android malware can steal your password by disabling fingerprint and face unlock - Indian Express

Relevance: Awareness in the fields of IT, Space, Computers, robotics, nano-technology, bio-technology and issues relating to intellectual property rights.

News:

- Cyber Security researchers recently discovered an updated version of the '**Chameleon Trojan**' malware that poses a threat to **Android devices**.

Malware Characteristics

- Chameleon Trojan **attaches itself to legitimate Android apps** like Google Chrome to evade detection.
- It **operates in the background**, compromising the security of the device.
- It is designed to **disable biometric authentication methods** such as fingerprint and face unlock to sneakily **access sensitive information**, especially PINs.
- It is reported to be **undetectable during runtime**, enabling it to bypass Google Protect alerts and security software on the device.
- This stealthy approach allows the Trojan to operate without any worries, evading immediate countermeasures.

Attack Mechanism

- Chameleon Trojan **steals on-screen content**, gains additional permissions, and can use gestures to capture PINs and passwords entered by users to unlock the device.
- The stolen PIN is then used to **unlock the device in the background**, allowing the theft of sensitive information such as credit card details and login credentials.
- It collects information on users' app usage habits to launch attacks **when the device is least likely to be in use**.

Preventive Measures

- Avoid installing Android apps from **unofficial sources**.
- **Disable the 'Accessibility service'** for unknown apps to prevent Chameleon Trojan from bypassing security mechanisms.
- **Running regular security scans** and **keeping Google Play Protect enabled** to enhance device security.

Prelims Takeaway

- Chameleon Trojan
- Malware

188. Researchers develop 'electronic soil' to enhance crop growth - Indian Express

Relevance: Science and Technology- developments and their applications and effects in everyday life.

News:

- Recently, a study introduced a newly developed **eSoil** that **enhances root systems** and promotes **50% more growth in barley seedlings**.

Hydroponics and eSoil

- Hydroponics is a technique for **growing plants without soil**, utilizing water-based nutrient solutions or alternative substrates like coconut coir.

Prelims Takeaway

- eSoil
- Hydroponics

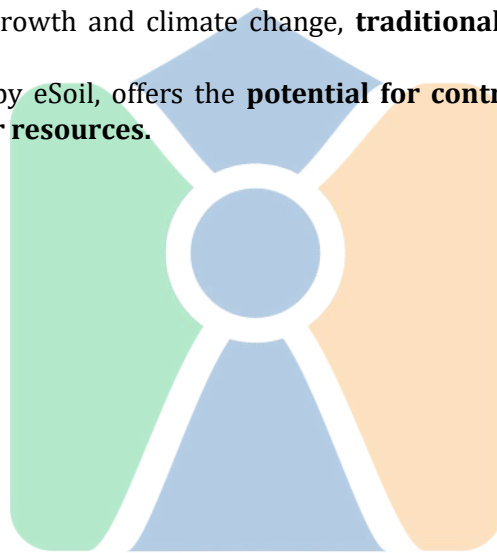
- eSoil, made of **cellulose** and the **conductive polymer PEDOT**, is tailored for hydroponic cultivation.
- eSoil is a **low-power bioelectronic growth substrate** that can electrically stimulate the root system and growth environment of plants.
 - Traditional hydroponic systems often use **non-biodegradable mineral wool** produced through **energy-intensive processes**.
- Its active material is an **organic mixed-ionic electronic conductor**.

Advantages of eSoil

- Unlike previous high-voltage root stimulation methods, eSoil achieves similar effects with significantly **lower energy consumption** and **no high-voltage danger**.
- **Barley seedlings show better growth rates** in hydroponics due to electrical stimulation provided by eSoil.
- The study suggests that eSoil enhances the **processing of nitrogen in seedlings**, contributing to more effective growth.
- While not seen as a sole solution to food security, eSoil can be beneficial in **regions with limited arable land** and **challenging environmental conditions**.

Potential Impact

- With global population growth and climate change, **traditional agricultural methods may not meet food demands**.
- Hydroponics, facilitated by eSoil, offers the **potential for controlled food production** in urban environments **with fewer resources**.



Mentorship
India

Quick Look

1. Cyclone Michaung

- The India Meteorological Department (IMD) has forecast a cyclonic storm, Cyclone Michaung, over the southwest Bay of Bengal.
- It is likely to make landfall in the coastal districts of Tamil Nadu and Andhra Pradesh.
- The government agency has issued an 'orange' alert over Tamil Nadu, as well as coastal and interior Andhra Pradesh.
- Cyclone Michaung is the fourth tropical cyclone of the year over the Bay of Bengal.
- The National Disaster Management Authority (NDMA) classifies cyclones broadly into two categories viz. extratropical cyclones and tropical cyclones.

2. Green Credits Initiative

- At the COP28, the Indian PM launched the 'Green Credit Initiative,' a program aimed at reshaping global environmental policies.
- He also launched the official portal of the Green Credit Initiative at COP28.
- This initiative involves creating an inventory of degraded wastelands, which can be utilised for planting by individuals and organisations.
- The entire process, from registration to plantation, verification, and issuance of green credits, will be digitised.
- Participants undertaking environmentally positive actions will receive tradable green credits.
- The portal will collect ideas, knowledge, and experiences related to tree planting and environmental conservation.
- This platform aims to influence global policies, practices, and the demand for green credits.
- The Green Credits Initiative mirrors the Green Credit Programme launched by the Union government in October, 2023.

3. World AIDS Day

- It is observed every year on December 1 to spread awareness about HIV/AIDS.
- The day is an opportunity to end stigmas associated with this disease.
- This day also honours people who lost their precious lives and engage in lives that support HIV/AIDS research and advanced treatment.
- It was first observed in 1988, when the World Health Organisation (WHO) recognised the day.
- The theme of World AIDS Day 2023 is "Let Communities Lead".

4. Santjordia PAGESI

- Santjordia pagesi, also called St. George's Cross medusa jellyfish, is a newly discovered species of jellyfish.
- It is considered "rare" and has been found only in the Sumisu Caldera near the Ogasawara Islands, southeast of Tokyo, Japan.
- Its body looks almost like a see-through cushion.
- It has a thick white ring running along its lower edge.
- Smaller vein-like structures stretch from its prominent central stomach to the outer ring.
- Its most distinctive feature is a bright red, cross-shaped stomach.
 - "Santjordia" refers to Saint George in Catalan, representing its cross-shaped stomach.
- The jellyfish's distinct features suggest it may possess a novel cnidarian venom.

5. Press Mud

- It is the agricultural waste obtained when cane juice is repeatedly filtered before being sent for sugar extraction.
- The filters are cleaned periodically, and the waste is deposited in the yard of the mill.
- Nearly 3 to 4 percent of press mud is obtained when one tonne of cane is crushed.
- At present, mills recycle this agricultural waste as manure by composting it and supplying it to the farmers in the area.
- It can be utilised as a feedstock for biogas production through anaerobic digestion and subsequent purification to create compressed biogas (CBG).
- It is very useful for crops and horticulture because of its richness in various micronutrients.
- It has been acknowledged as a valuable resource for green energy production.
- Sugarcane byproduct press mud can help generate 460,000 tonnes of compressed biogas (CBG) valued at Rs 2,484 crore.

6. Hauz-e-Shamsi (Delhi)

- It was built in 1229 CE under the reign of Iltutmish.
- It was also known as Shamshi Talab.
- It is a water storage reservoir or tank.
- Material: Red sandstone
- Islamic Prophet Mohammad directed Iltutmish in his dreams to build the reservoir at a particular site.
- It is a double-storeyed structure supported on twelve pillars.

7. Defence Acquisition Council (DAC)

- The Defence Acquisition Council recently accorded approval for Acceptance of Necessity (AoNs) for various capital acquisition proposals amounting to ₹2.23 lakh crore.
- DAC is the highest decision-making body of the Defence Ministry on procurement.
- Objective: To ensure expedited procurement of the approved requirements of the armed forces.
- It was formed after the Group of Ministers' recommendations on 'Reforming the National Security System', in 2001, post-Kargil War (1999).
- The Defence Minister is the chairman of DAC.
- Its members include the Chief of Defence Staff (CDS) and chiefs of the Army, Navy, and Air Force.

8. Project Kuiper

- It is Amazon's project to build a network of 3,236 satellites in low Earth orbit to provide high-speed internet access anywhere in the world.
- Its mission is to bring fast, affordable broadband to unserved and underserved communities around the world.
- Project Kuiper has three main parts viz.
 - Ground infrastructure
 - It includes gateway antennas that securely send and receive customer data to and from satellites, along with telemetry, tracking, and control (TT&C) antennas.
 - Global networking connects those gateway antennas to the internet, public cloud, or private networks.
 - Satellites: They operate in low Earth orbit (LEO) and relay data traffic to and from gateway antennas and customers.
 - Customer terminals
 - These are the technologies that Project Kuiper customers use to receive broadband service.

- The terminals combine antennas and processors into a single, compact system to deliver connectivity.

9. Anthrobots

- These are constructed from human tracheal cells which are bio-robots that possess self-assembly capabilities.
- These are capable of both movement and healing neurons within a laboratory setting.
- They can spontaneously fuse together to form a larger structure called a superbot, which was able to encourage the growth of neurons.
- They are measuring between the width of a human hair and the tip of a sharpened pencil.
- The anthrobots displayed diversity in structure and behavior. Some took on a spherical shape fully covered in cilia, while others resembled a football shape irregularly adorned with cilia.
- These anthrobots are different from Xenobots, which are created from embryonic stem cells of frog.

10. Voice over 5G

- It is also known as Voice over New Radio (VoNR).
- This standard allows voice calls over 5G networks instead of the current standard that uses 4G.
- In simple terms, Vo5G takes all the improvements of 5G – speed, capacity, responsiveness – and applies them squarely to voice.
- It aims to have all that infrastructure and interoperability ready well in advance.
- To use Vo5G, you need three things: a phone that supports Vo5G, a carrier that offers Vo5G, and a 5G signal in your area.

11. International Maritime Organisation

- It is a specialized agency of the United Nations which is responsible for measures to improve the safety and security of international shipping and to prevent pollution from ships.
- It is the global standard-setting authority for the safety, security and environmental performance of international shipping.
- Its main role is to create a regulatory framework for the shipping industry that is fair and effective, universally adopted and universally implemented.
- It was established as the Inter-Governmental Maritime Consultative Organization (IMCO) in 1948, became a specialized agency of the United Nations in 1959 and was renamed International Maritime Organization in 1982.

12. FjordPhantom

- It is a new malware that employs virtualization to elude detection and target applications.
- It propagates through messaging services and combines app-based malware with social engineering to deceive banking customers.
- It utilises email, SMS, and messaging apps to entice users into unwittingly downloading what appears to be a legitimate banking app, which contains FjordPhantom.
- When this app gets installed, the attackers, posing as customer service representatives, guide the users through the steps to run the app.
- The malware uses virtualization to create a virtual container to run this app, and attackers can monitor the user's actions and steal their credentials.
- It facilitates attackers in gaining access to files and memory, conducting debugging, and injecting code into other apps.
- It strategically zeroes in on users within Southeast Asia, encompassing countries such as Malaysia, Thailand, Indonesia, Singapore, and Vietnam.

13. Buxa Tiger Reserve (BTR)

- It lies in the Alipurduar sub-division of the Jalpaiguri district of West Bengal.
- It got its name from Buxa Fort, which is located on the Sinchula Range.
- Its northern boundary runs along the international border with Bhutan.
- The Sinchula hill range lies all along the northern side of BTR, and the eastern boundary touches that of Assam State.
- It serves as an international corridor for elephant migration between India and Bhutan.
- The fragile "Terai Ecosystem" constitutes a part of this reserve.
- Two rivers, namely the River Raidak and the River Jayanti, flow through the forest of Buxa.
- Vegetation: Moist Tropical Forest
- Flora: Sal, Champa, Gamar, Simul, Chikrasi etc..
- Fauna: Tiger, elephant, leopard cat, gaur, wild boar, sambar, hog deer, Chinese pangolin, etc.

14. The Pacific Ring of Fire

- It is also known as the Circum-Pacific Belt, is a path along the Pacific Ocean characterised by active volcanoes and frequent earthquakes.
- Its length is approximately 40,000 kilometres (24,900 miles).
- It traces boundaries between several tectonic plates—including the Pacific, Juan de Fuca, Cocos, Indian-Australian, Nazca, North American, and Philippine Plates.

15. Red Sea

- It is a semi-enclosed inlet (or extension) of the Indian Ocean between the continents of Africa and Asia.
- It is one of the world's warmest seas.
- It is connected to the Arabian Sea and the Indian Ocean to the south through the Gulf of Aden and the narrow strait of Bab El-Mandeb.
- The northern portion of the Red Sea is bifurcated by the Sinai Peninsula into the Gulf of Aqaba and the Gulf of Suez, where it is connected to the Mediterranean Sea via the famous Suez Canal.
- Yemen and Saudi Arabia border the Red Sea to the east.
- It is bordered by Egypt to the north and west and by Sudan, Eritrea, and Djibouti to the west.

16. Buoy

- A buoy is a floating object anchored at a definite location to guide or warn mariners, to mark the positions of submerged objects, or to moor vessels in lieu of anchoring.
- Buoys are often brightly coloured and have distinctive shapes or patterns, making them easily visible to ships and other watercraft.
- Buoys are commonly found in harbours and ports, along coastlines, and in rivers and lakes.
- They are maintained by various organisations, such as the Coast Guard and other navigational authorities.

17. Abelmoschus Odishae

- It is a new plant species of 'wild okra'.
- It was discovered in a moist deciduous forest in Banspal block in Keonjhar district, Odisha.
- It can be used for hybridisation to create a better variety with high disease resistance.
- It can also play a vital role in widening the genetic base of okra.

- It is a perennial shrub up to 5 metres high with a densely hispid, prickly stem with retrorse hairs.
- It has large, deep yellow flowers.
- It has sub-reniform seeds with short, stout, and non-spiral trichomes.
- It also has a seed viability of 95 percent.

18. Geographical Indication Tag

- Four of the agricultural products in the southern part of Tamil Nadu were recently given the Geographical Indication (GI) recognising their uniqueness.
- The four products are The Cumbum paneer grapes, Authoor betel leaves, Sholavandhan betel leaves and Kanniyakumari matti banana.
- GI Tag is an indication used to identify goods having special characteristics originating from a definite geographical territory.
- The Geographical Indications of Goods (Registration and Protection) Act, 1999 seeks to provide for the registration and better protection of geographical indications relating to goods in India.
- It is governed and directed by the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS).
- It is primarily an agricultural, natural or a manufactured product (handicrafts and industrial goods).
- Validity: 10 years following which it can be renewed.

19. INS Sandhayak

- Recently, Garden Reach Shipbuilders and Engineers (GRSE) delivered INS Sandhayak to the Indian Navy on the occasion of Navy Day.
- It is the largest survey vessel ever built in India.
- It is the first in the series of four Survey Vessels (Large), or SVLs, being built by GRSE.
- The new INS Sandhayak and the remaining ships in the series are far more advanced than their predecessors.
- **Features**
 - It is a 110-metre-long ship propelled by two marine diesel engines combined with fixed-pitch propellers.
 - It is fitted with bow and stern thrusters to help the ships manoeuvre at low speeds during surveys.
 - It is capable of full-scale coastal and deep-water hydrographic surveys of port and harbour approaches and the determination of navigation channels and routes.
 - It can also undertake surveys of maritime limits and the collection of oceanographic and geographical data for defence applications.
 - It can carry a helicopter, participate in low-intensity combat, and function as a hospital ship.
 - It can also be used for humanitarian assistance and disaster relief operations.

20. International Social Security Association

- It is the principal international institution bringing together social security agencies and organisations of the world.
- Objective: To promote dynamic social security as the social dimension in a globalising world by supporting excellence in social security administration.
- It was founded in 1927 under the auspices of the International Labour Organization
- It has over 320 member institutions from over 160 countries.
- It provides access to information, expert advice, business standards, practical guidelines and platforms for members to build and promote dynamic social security systems worldwide.
- Headquarters: Geneva (at the International Labour Office)

21. Pilatus PC-7 Mk II

- It is a trainer aircraft.
- It is a low-wing, turbo-prop aircraft with tandem seating (the cadet sits in the front, the instructor behind him).
- While the original aircraft has been in service since the 1970s, the Mk II version was introduced in the 1990s, with newer airframe and more advanced avionics.
- It is Powered by a Pratt & Whitney turbo-prop engine, it has a maximum speed of 412 km/h and can fly to a height of slightly more than 10,000 m.
- It has a range of 1,200 km without external tanks, which translates to slightly more than 4 hours of flying time.
- There are 75 Pilatus PC-7 Mk II aircraft in service with the IAF.

22. CV-22B Osprey

- It is a tiltrotor aircraft that combines the vertical take-off, hover, and vertical landing qualities of a helicopter with the long-range, fuel efficiency, and speed characteristics of a turboprop aircraft.
- It was developed to fulfil the needs of the U.S. Marine Corps, U.S. Air Force and U.S. Navy operational requirements worldwide.
- It is built by Boeing, an American aerospace company.
- It is used for a wide-range of missions, including long-range infiltration, exfiltration, medium-range assault, special operations, VIP transport, resupply, disaster relief, search-and-rescue, medical evacuation, and humanitarian missions

23. Lakadong Turmeric

- Recently, Meghalaya's Lakadong turmeric has been awarded the Geographical Indication (GI) tag.
- It is considered to be one of the world's best varieties of turmeric, with a curcumin content of around 6.8 to 7.5 percent.
- It is darker in colour and is grown organically without the use of fertilisers.
- It is found in the Lakadong area of Jaintia Hills.
- Other GI products from Meghalaya: Garo Dakmanda (traditional dress), Larnai pottery and Garo Chubitchi (alcoholic beverage).

24. Global Positioning System (GPS)

- The US Department of Defence started the GPS programme in 1973 and launched the first satellite in 1978.
- The modern GPS satellite constellation consists of 24 satellites moving around the earth in six orbits.
- Each satellite completes two orbits in a single day.
- The overall programme has three main components
 - Space segment: It consists of 24 satellites. The six orbits they occupy are all 20,200 km above the earth, and each orbit has four satellites at all times.
 - Control segment: It consists of a global network of ground-based control stations and antennae that track the 24 satellites, make sure their performance is as expected at all times, and transmit commands.
 - User segment: It pertains to the use of GPS in various sectors and applications. The major sectors include agriculture, construction, surveying, logistics, telecommunications, power transmission, search and rescue, air travel, meteorology, seismology, and military operations.

25. BharatNet Project

- The National Optical Fibre Network (NOFN), launched in October 2011, was renamed the Bharat Net Project in 2015.
- It aims to provide affordable broadband connectivity of 2 Mbps to 20 Mbps for all households and on-demand capacity to all institutions.
- The objective is to facilitate the delivery of e-governance, e-health, e-education, e-banking, Internet and other services to rural India.
- To achieve this, the existing fibres of PSUs (BSNL, Railtel and Power Grid) were utilised and incremental fibre was laid to connect to Gram Panchayats wherever necessary.
- The entire project is being funded by the Universal service Obligation Fund (USOF), which was set up to improve telecom services in rural and remote areas of the country.
- The project is being executed by a Special Purpose Vehicle (SPV) called Bharat Broadband Network Limited (BBNL) incorporated under Indian Companies Act 1956.

26. Kesavananda Bharati Judgement

- The Supreme Court overruled its judgment in the Golak Nath case.
- It upheld the validity of the 24th Amendment Act and stated that Parliament is empowered to abridge or take away any of the Fundamental Rights.
- At the same time, it laid down a new doctrine of the 'basic structure' (or 'basic features') of the Constitution.
- It ruled that the constituent power of Parliament under Article 368 does not enable it to alter the 'basic structure' of the Constitution.
- This means that the Parliament cannot abridge or take away a Fundamental Right that forms a part of the 'basic structure' of the Constitution.

27. Multiple Sclerosis

- It is a long-lasting (chronic) disease of the central nervous system.
- In people with MS, the immune system attacks cells in the myelin, the protective sheath that surrounds nerves in the brain and spinal cord.
- Damage to the myelin sheath interrupts nerve signals from your brain to other parts of your body. The damage can lead to symptoms affecting your brain, spinal cord, and eyes.
- Eventually, the disease can cause permanent damage or deterioration of the nerve fibres.
- MS affects women more than men. The disorder is most commonly diagnosed between ages 20 to 40, but it can be seen at any age.

28. Global Multidimensional Poverty Index

- The Union Finance Minister recently reported that approximately 13.5 crore people have escaped "multidimensional" poverty in the last five years, referencing the Niti Aayog's 2022 report on poverty.
- The index is a key international resource that measures acute multidimensional poverty across more than 100 developing countries.
- It was first launched in 2010 by the OPHI and the Human Development Report Office of the UNDP.
- The MPI monitors deprivations in 10 indicators spanning health, education and standard of living and includes both incidence as well as intensity of poverty.

- A person is multidimensionally poor if she/he is deprived in one third or more (means 33% or more) of the weighted indicators (out of the ten indicators).
- Those who are deprived in one half or more of the weighted indicators are considered living in extreme multidimensional poverty.

29. Chandrayaan 3's Propulsion Module

- Scientists have brought the Propulsion Module (PM) of the Chandrayaan 3 mission back into Earth orbit.
- The propulsion module is a box-shaped component of the Chandrayaan-3 spacecraft powered by solar panels.
- Objective: To ferry the Lander module to the final lunar polar circular orbit and separate the Lander.
- Outcomes from the return manoeuvres carried out on PM related to future missions
 - Planning and execution of trajectory and manoeuvres to return from Moon to Earth.
 - Development of a software module to plan such a manoeuvre and its preliminary validation.
 - Planning and execution of a gravity assisted flyby across a planet/celestial body.
 - Avoiding uncontrolled crashing of the PM on the Moon's surface at the end of life of PM, thus, meeting the requirements of no debris creation.

30. Pulsars

- Pulsars are rotating neutron stars observed to have pulses of radiation at regular intervals that typically range from milliseconds to seconds.
- Pulsars have very strong magnetic fields, which funnel jets of particles out along the two magnetic poles.
- These accelerated particles produce very powerful beams of light.
- Pulsar masses range between 1.18 and 1.97 times that of the Sun, but most pulsars have a mass 1.35 times that of the Sun.
- Often, the magnetic field is not aligned with the spin axis, so those beams of particles and light are swept around as the star rotates.
- When the beam crosses our line of sight, we see a pulse i.e, we see pulsars turn on and off as the beam sweeps over Earth.

31. Kopili Fault Zone

- Recently, researchers identified seismogenic liquefaction features in the active Kopili Fault (KF) zone.
- It is a 300 km long and 50 km wide lineament situated in the northeastern region of India.
- It extends from the western part of Manipur to the tri-junction of Bhutan, Arunachal Pradesh, and Assam.
- It is closer to Himalayan Frontal Thrust.
- This is a seismically active area falling in the highest Seismic Hazard Zone V.
- It is associated with collisional tectonics because of the Indian Plate subducting beneath the Eurasian Plate.
- The fault itself is a transpressional fracture that generates lower crustal dextral strike-slip earthquakes.
- It is a tectonic depression filled up by the alluvium of the Kopili river and its tributaries.
- It has witnessed many seismic activities in the past including the 1869 earthquake (7.8 magnitude) and the 1943 earthquake (7.3 magnitude).

32. Group of Companies' Doctrine

- The "group of companies" doctrine states that a company that is a non-signatory to an arbitration agreement would be bound by the agreement
 - If such a company is a member of the same group of companies that signed the agreement.
- The doctrine deems that the parties to the arbitration agreement mutually intended for such a non-signatory to be bound by it.
- Arbitration is a mechanism to resolve disputes between parties without going to court.
- A neutral person is appointed to adjudicate the dispute, and the judgement of an arbitrator is legally enforceable.
- The "group of companies" concept, unlike other non-signatory theories that are based on domestic law principles, is based on international arbitration jurisprudence.
- The doctrine was first recognised by the Indian Supreme Court in Chloro Controls India Private Limited v. Severn Trent Water Purification Inc. (2013).
- Since then, Indian courts have applied the doctrine to bind group companies of signatories to arbitration agreements.

33. Oil and Gas Decarbonization Charter (OGDC)

- Recently, Conference of Parties (COP28) President and Saudi Arabia announced the official launch of the Oil and Gas Decarbonization Charter (OGDC).
- It is a dedicated initiative for the oil and gas sector.
- It aims to induce substantial impact in addressing climate challenges.
- Currently, 50 companies, collectively responsible for over 40 percent of global oil production, have committed to the OGDC.
- National Oil Companies have shown historic participation, constituting over 60 percent of the total signatories, marking a noteworthy shift towards decarbonization within this sector.
- It is integral to the Global Decarbonization Accelerator (GDA).

34. National Automated Fingerprint Identification System (NAFIS)

- It is a pan-India searchable database of crime and criminal-related fingerprints.
- It is managed by the Central Fingerprint Bureau at the National Crime Records Bureau (NCRB), based in New Delhi.
- It functions as a central information repository by consolidating fingerprint data from all states and Union Territories.
- It assigns a unique 10-digit National Fingerprint Number for each criminal, based on biometrics.
- It enables law enforcement agencies to upload, trace and retrieve data from the database in real time on a 24×7 basis.
- With the help of this it is possible to locate a person of interest in a matter of minutes.

DRESS Syndrome

- Recently, the Indian Pharmacopoeia Commission (IPC) issued a drug safety alert about the use of painkiller mefenamic acid that it can lead to Drug Reactions with Eosinophilia and Systemic Symptoms (DRESS) Syndrome.
- It is a type of drug allergy that can occur as a reaction to a large variety of medications.
- This syndrome causes a diverse array of clinical symptoms, anywhere from 2 to 8 weeks after initiating the offending drug.
- Symptoms
 - Patients typically present with a rash, fever, and eosinophilia but can have a variety of symptoms including liver, lung, or kidney involvement.
 - Also have a visceral involvement (hepatitis, pneumonitis etc.) which is the major cause of morbidity and mortality in this syndrome.
- Treatment

- Stop the medication involved in the reaction, and sometimes, no further treatment is needed.
- It is largely supportive and symptomatic; corticosteroids are often used and sometimes immunosuppressants like cyclosporine.

35. Ibu Volcano

- Recently, the Ibu volcano in Indonesia's North Maluku province erupted.
- It is one of the most isolated and least accessible volcanoes in Indonesia.
- It is a stratovolcano located in the province of Maluku, East Indonesia.
- The stratovolcano is a tall, steep, and cone-shaped type of volcano.
- At their peak, stratovolcanoes usually have a small crater.
- The crater may be filled with water or ice, or it may contain a volcanic dome during a period of relative inactivity.
- Stratovolcanoes comprise the largest percentage (~60%) of the Earth's volcanoes, and most are characterised by eruptions of andesite and dacite, lavas that are cooler and more viscous than basalt.
- These volcanoes often suffer explosive eruptions.

36. Assam Accord

- The Assam Accord was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement.
- The Assam Movement (also Anti-Foreigners Agitation) (1979–1985) was a popular uprising in Assam that demanded the Government of India to detect, disenfranchise and deport illegal aliens.
- The protestors demanded the identification and deportation of all illegal foreigners – predominantly Bangladeshi immigrants.
- The movement ended in 1985 with the Assam Accord.
- the Government of India agreed to secure the international border against future infiltration

37. Hatti community

- The Hattis are a close-knit community who take their name from their traditional occupation of selling home-grown crops, vegetables, meat, and wool at small-town markets known as 'haats'.
- Hatti men traditionally don a distinctive white headgear on ceremonial occasions.
- The Hatti homeland straddles the Himachal-Uttarakhand border in the basin of the Giri and Tons rivers, both tributaries of the Yamuna.
- The Tons marks the border between the two states
- The Hattis living in the Trans-Giri area in today's Himachal Pradesh and Jaunsar Bawar in Uttarakhand were once part of the royal estate of Sirmaur.
- Jaunsar Bawar was conquered by the British in 1814.

38. Indian Pharmacopoeia Commission

- It is an autonomous Institution of the Ministry of Health and Family Welfare, of India.
- It is created to set standards of drugs in the country.
- Its basic function is to regularly update the standards of drugs commonly required for treatment of diseases prevailing in this region.
- It publishes official documents for improving Quality of Medicines by way of adding new and updating existing monographs in the form of Indian Pharmacopoeia (IP).
- It further promotes rational use of generic medicines by publishing National Formulary of India.

39. Council for the Indian School Certificate Examination (CISCE)

- CISCE is a privately held national-level board of school education in India that supervises and controls the Indian Certificate of Secondary Education (ICSE).

- It was established in 1958. Over 2,100 schools in India and abroad are affiliated to the CISCE.
- It has been designed to deliver an examination in the course of general education through the medium of English, in accordance with the recommendations of the New Education Policy 1986.
- CISCE conducts three examinations, namely
 - The Indian Certificate of Secondary Education (ICSE –Class X)
 - The Indian School Certificate (ISC - Class XII)
 - The Certificate in Vocational Education (CVE - Year 12).
- The subject choices and syllabuses prescribed for these examinations are varied and aimed at nurturing the unique gifts of individual pupils.
- It does not allow a private student to appear for the exam, who has not been studying in an ICSE affiliated school.

40. Syphilis

- It is a Sexually Transmitted Infection (STI).
- It is caused by the bacteria, *Treponema pallidum*.
- After the infection happens, syphilis bacteria can stay in the body for many years without causing symptoms. But the infection can become active again.
- Syphilis spreads from person to person through direct contact with these sores.
- It can also be passed to a baby during pregnancy, childbirth and sometimes through breastfeeding.
- Syphilis develops in stages. The symptoms vary with each stage and are often painless.

41. National Mission for Clean Ganga (NMCG)

- It is a registered society under the Ministry of Jal Shakti, Government of India
- Its objective is to take measures for prevention, control and abatement of environmental pollution in the river Ganga and to ensure continuous adequate flow of water so as to rejuvenate the river Ganga.
- It acted as the implementation arm of the National Ganga River Basin Authority (NGRBA)
 - Which was constituted under the provisions of the Environment (Protection) Act (EPA), 1986.
- NGRBA has since been dissolved with effect from 2016, consequent to the constitution of the National Council for Rejuvenation, Protection and Management of River Ganga (referred to as National Ganga Council).

Mentorship

42. Goldilocks Effect

- The Goldilocks Effect, or the Goldilocks Principle, is the premise that people are inclined to seek 'just the right' amount of something.
- People prefer something that is neither too extreme nor too moderate but falls within an optimal or desirable range, fitting their specific needs or preferences.
- The concept is derived from the children's story of Goldilocks and the Three Bears, where Goldilocks preferred the porridge, chair and bed that were neither too hot nor too cold, too big nor too small, but just right.
- It has a place in several fields and disciplines. It applies to elements of psychology, hard sciences, economics, marketing and engineering, and each one has its own twist on how the principle is applied.

43. Banni Grassland

- It is located along the northern border of Kachchh district in Gujarat
- It is one of the largest grasslands in the Indian subcontinent with an area of over 2500 sq. km.

- Many factors have served to shape Banni over time, including the damming of rivers, the introduction and spread of the invasive *Prosopis juliflora* tree
- The Banni is also home to 22 ethnic groups, the majority of whom are pastoralists, spread across 48 settlements in 19 Panchayats, with a population of close to 40,000 people.
- It is home to great biological diversity, having 37 grass species, 275 bird species, and domesticated animals like Buffalo, Sheep, Goat, Horses and Camel, as well as wildlife.
- The Kutch Desert Wildlife Sanctuary which spans over an area of 380 sq. km and the recently notified 227 Sq. km Chhari Dhand Conservation Reserve are part of the Banni Grasslands.
- The vegetation here mainly comprises *Prosopis Juliflora*, *Cressa critica*, *Cyperus spp*, *Sporobolus*, *Dichanthium*, and *Aristida*.

44. Green Rising Initiative

- This initiative focuses on engaging youth for impactful environmental actions at the grassroots level, aligning with the global effort to address the severe impacts of climate change.
- The global "Green Rising" initiative and the "Green Rising India Alliance" marks a collaborative effort involving UNICEF, Generation Unlimited, and a diverse network of public, private, and youth partners.
- The main goal is to mobilize millions of young people worldwide, encouraging their active participation in green initiatives addressing and adapting to the severe impacts of climate change on their communities.
- Through the YuWaah campaign in India, the focus is on engaging youth to drive impactful environmental actions at the grassroots level.

45. Road Safety Good Practices in India

- The Union Minister of Road Transport and Highways recently expressed concern over the rising number of road accidents in India.
- The Save Life Foundation report, titled 'Road Safety Good Practices in India,' presented case studies of 13 roads across the country to showcase successful safety stories.
- Key Highlights
 - 53 road accidents and 19 deaths occur every hour, indicating a serious issue.
 - A 12% increase in road accidents and a 10% increase in accident-related deaths.
 - Over 60% of those who lose their lives in road accidents are young individuals aged between 18 and 35.
 - The road suggested that scaling up corridor-based road safety practices could potentially save 40,000 lives annually.
- He cited the example of NH48 (Old Mumbai-Pune Highway), where fatalities witnessed a 61% drop between 2018 and 2021 due to effective problem-solving and road engineering.
- He announced the government's intention to reduce road accident deaths by 50% by 2030.

46. Wheeler Island

- Abdul Kalam Island, formerly known as Wheeler Island, is an island off the coast of Odisha.
- The island was renamed to honour the late President Dr. APJ Abdul Kalam and also to encourage the youth to pursue a scientific temperament.
- It is the only place in India that has an integrated test range maintaining a missile testing facility, which is located on this island.
- All indigenous missiles, like Akash missile, Agni missile, Prithvi Missile etc. are tested from here.
- The island is 2 km long, having an area of 390 acres, and is basically a soil formation without rocks in the Bay of Bengal.

47. Ghaggar River

- It is an intermittent river that flows only during the monsoon season.
- Course
 - It rises from the Shivalik Range in northwestern Himachal Pradesh.
 - It flows about 200 miles (320 km) southwest through Haryana state, where it receives the Saraswati River.
 - It eventually dries up in the Thar Desert in Rajasthan.
- This seasonal river feeds two irrigation canals that extend into Rajasthan.
- The Hakra, which flows in Pakistan, is the continuation of the Ghaggar River in India, and they are together called the Ghaggar - Hakra River.
- Several historians identify Ghaggar with the Vedic Saraswati River.
- Along the banks of the Ghaggar River, many settlements of the Indus Valley Civilization have been excavated.
- It is believed that the rivers Sutlej and Yamuna once flowed into the Ghaggar-Hakra river bed.
- Tributaries: Kaushalya River, Markanda, Sarsuti, Tangri and Chautang.

48. Yellow Sea

- A US F-16 fighter appears to have crashed into Yellow Sea waters off the coast of South Korea recently.
- The Yellow Sea is a marginal sea in the western Pacific Ocean.
- It is situated between mainland China to the west and north, the Korean Peninsula to the east, and the Shandong Peninsula and Liaodong Peninsula to the south.
- It is positioned to the north of the East China Sea.
- The sea was named for the yellowish sand particles originating from the Gobi Desert that descend on the surface of the sea, thereby giving it a golden yellow colour.
- It is one of the largest shallow areas of the continental shelf in the world, with an average depth of 44 metres and a maximum depth of 152 metres.
- The main rivers that drain into the Yellow Sea include the Hai River, the Yalu River, the Han River, the Taedong River, and the Yellow River.
- The climate is characterized by very cold, dry winters and wet, warm summers.
- Islands: The Yellow Sea is dotted with numerous islands, the largest of which include Jeju Island (South Korea), Shandong Peninsula islands (China), and Ganghwa Island (South Korea).

49. Pangalokha Wildlife Sanctuary

- It is located in East Sikkim district and connected to the forests of Bhutan and Neora Valley National Park in West Bengal.
- The Pangolakha Range, extending below the Chola Range, separates Sikkim from Bhutan.
- The Sanctuary has typical alpine-temperate-subtropical vegetation with high altitude lakes around Jelep La.
- Flora: Rhododendron, Silver Fir, Juniper forest and associated ground flora, moss-filled oak forests with dense bamboo thickets etc.
- Fauna: It is home to a diverse range of charismatic species, including red pandas, snow leopards, Himalayan musk deer, Himalayan goral and Himalayan black bears.

50. Organ Transplant

- The process of organ transplantation in India involves organs sourced either from deceased persons, donated by their relatives, or from living donors, typically close relatives.
- For living donations, comprehensive documentation is necessary. Additional scrutiny is applied for altruistic donations from more distant relatives, in-laws, or long-time friends, ensuring no financial exchange is involved.

- Engaging in organ trade, including offering to pay for organs, advertising for such arrangements, seeking individuals to supply organs for payment, and involvement in fraudulent documentation, is met with severe legal consequences.
- Offenders may face imprisonment for up to 10 years and fines of up to Rs 1 crore.
- The Transplantation of Human Organs and Tissues Act, 1994 governs these procedures and outlines regulations to ensure ethical and legal practices.

51. Kambalakonda Wildlife Sanctuary

- The first-of-its-kind, Nature Interpretation Centre at the Eastern Ghats Biodiversity Centre along the periphery of the Kambalakonda Wildlife Sanctuary was inaugurated.
- Kambalakonda Wildlife Sanctuary is located in the state of Andhra Pradesh.
- It is named after the local hillock "Kambalakonda" acting as a green lung for citizens of Vizianagaram, is this large and sprawling sanctuary.
- Topography: It is considerably hilly with steep slopes.
- It hosts dry evergreen forests, a highly-threatened and unique forest type seen only in Tamil Nadu and Andhra Pradesh in India.
- One of the most stunning flowers found in the region includes the Indian screw tree.
- Other flowers and fruits like flowers of the Bush plum tree, Jungle berry bunches can be found all across the landscape.
- Fauna: Mammals like Leopard, Barking Deer, Jackal and Avifauna include Paradise flycatcher, Tree pie, Quails, Partridges, etc.

52. Exercise VINBAX 2023

- Recently, the Indian Armed Forces contingent reached Hanoi, Vietnam to take part in the Joint Military Exercise VINBAX 2023.
- VINBAX was instituted in 2018 and the first edition was conducted at Jabalpur, Madhya Pradesh.
- It is an annual training event conducted alternatively in India and Vietnam.
- This year's exercise will be conducted at Hanoi, Vietnam.
- Objective: To foster collaborative partnership, promote inter-operability and share best practices between the two sides under Chapter VII of United Nations Charter on Peacekeeping Operations.
- The exercise will be conducted as a Command Post Exercise cum Field Training Exercise with focus on deployment and employment of an Engineer Company and a Medical Team.

53. Red Sprite

- Recently, the European Space Agency (ESA) astronaut photographed an uncommon occurrence termed a red sprite.
- A red sprite represents an extraordinary meteorological phenomenon categorised as a Transient Luminous Event (TLE).
- Occasionally dubbed red lightning, it occurs above thunderclouds at altitudes between 40 and 80 kms above the Earth's surface.
- Lightning flashes normally go downward from the clouds to the ground.
- However, a sprite goes in the other direction, going into the atmosphere, a bit like backwards lightning.
- It happens incredibly quickly, in about a millisecond, which can make it tricky for scientists to capture and observe them.
- Also, as the red sprites form above thunder clouds, they are not easily studied from Earth and are mostly seen from space.

54. Otolith rings

- The otolith is a stony lump in the fish ear.
- These are much like tree rings which reveal fish's age.

- Different forms or isotopes of oxygen in the otolith indicate the temperature the fish experienced when it was alive. Carbon isotopes reveal how quickly food was converted into energy.
- Fish carry their fitness trackers in their ears. They are commonly known as "earstones," are hard, calcium carbonate structures located directly behind the brain of bony fishes.

55. Indian Mouse Deer

- The Indian Mouse Deer or Spotted Chevrotain is the smallest deer in India and is highly nocturnal.
- Its Scientific Name is *Moschiola indica*
- It is endemic to the Indian Subcontinent.
- It is mainly found in peninsular India, with some old records from Nepal.
- Sri Lanka has a separate species called the spotted chevrotain (*Moschiola meminna*).

Within India, it is commonly encountered in a number of forest areas along the Western Ghats, in the Eastern Ghats up to Orissa, and in the forests of central India.

56. *Demaorchestia alanensis*

- Recently, the researchers at Berhampur University, Odisha, discovered a new species of marine amphipod named *Demaorchestia alanensis*.
- *Demaorchestia alanensis* is a new species of marine amphipod—a shrimp-like crustacea of the genus *Demaorchestia*.
- The present discovery has added one more species to the genus *Demaorchestia*, raising the global species number in the group to six.
- **Features**
 - It is white in colour and less than 15 millimetres in length.
 - It has 13 pairs of legs, while three pairs are used for swimming in the water, eight pairs are used for walking on land and the other two pairs are used for capturing prey and feeding.
 - The species can be distinguished from the other members of the genus by two to three strong, hair-like structures, or setae, on the anterior margin of the propodus of the gnathopod.

57. GST Appellate Tribunals (GSTATs)

- The Central Goods and Service Tax Act, 2017, Section 109 mandates for the constitution of a GSTAT and its Benches.
- The GSTAT will be the specialized appellate authority for resolving disputes under the GST laws.
- The GST Tribunal will have one principal bench in New Delhi.
- It will have as many benches or boards in states as decided by each state subject to approval of the council
- North-eastern states could opt for one bench for 2-3 states and an additional bench for very far-flung areas.
- The principal bench and state boards would have two technical and two judicial members each, with equal representation from the Centre and states.
- However, all four members would not sit for hearing each case.

58. Bab al-Mandab strait

- It is strait between Arabia (northeast) and Africa (southwest) that connects the Red Sea (northwest) with the Gulf of Aden and the Indian Ocean (southeast).
- It forms a vital strategic link in the maritime trade route between the Mediterranean Sea and the Indian Ocean via the Red Sea and the Suez Canal

- It is one of the world's most important routes for global seaborne commodity shipments, particularly crude oil and fuel.
- It is bordered by Yemen on the Arabian Peninsula and Djibouti and Eritrea on the African coast.

59. Cassiopeia A

- It is a remnant of a massive star that exploded some 340 years ago.
- It is the youngest remnant of the massive star in our galaxy known to mankind.
- It belongs to the prototypical type of supernova remnant and has been extensively studied by a number of ground-based and space-based observatories.
- The remnant spans about 10 light-years and is located 11,000 light-years away in the constellation Cassiopeia.
- It gives information related to the supernovae phenomenon and its complexities.

60. Saiga Antelope

- It is a large migratory herbivore.
- This antelope has an extremely unusual appearance with an oversized and flexible nose, the internal structure of which acts like a filter.
- Their large noses filter out dust kicked up by the herd in the warm summers and warms the icy air before it reaches their lungs in the winters.
- It inhabits open dry steppe grasslands and semi-arid deserts.
- The antelope were once found throughout the Eurasian Steppe, the great band of grassland that stretches from Hungary in Europe to Manchuria in Asia.
- Presently it is found in fragmented populations within Kazakhstan, Mongolia, the Russian Federation and Uzbekistan.

61. Indira Gandhi Peace Prize

- The Indira Gandhi Prize for Peace, Disarmament and Development for 2023 has been jointly awarded to Daniel Barenboim and Ali Abu Awwad.
- They have been awarded for their efforts in bringing together the youth and peoples of Israel and the Arab World for a non-violent resolution of the Israel-Palestine conflict.
- The Indira Gandhi Prize for Peace, Disarmament, and Development was instituted in the memory of the former PM by a trust in her name in 1986.
- It consists of a monetary award of 25 lakh rupees along with a citation.
- The award is given to individuals or organisations that work towards ensuring international peace and development, ensuring that scientific discoveries are used to further the scope of freedom and better humanity, and creating a new international economic order.

62. Protection of Children from Sexual Offences (POCSO) Act, 2012

- The High Court of Karnataka recently directed conducting pregnancy test of every victim of rape and sexual offences under the Protection of Children from Sexual Offences (POCSO) Act, 2012.
- It is along with other mandatory medical examinations after registration of a FIR on the alleged offences.
- This measure will help to ascertain, among other relevant medical conditions
 - The gestation period for termination of pregnancy at the earliest
 - The physical and mental status of the victim
 - The ability to undergo medical termination of the pregnancy
 - Aggravating factors that will impinge upon the health and well-being of the victim
- The POCSO Act was enacted in 2012 in consequence to India's ratification of the UN Convention on the Rights of the Child in 1992.

- Objective
 - To protect children from sexual assault, sexual harassment and pornography offences.
 - To provide for the establishment of Special Courts for the trial of such offences.
- It defines a child as any person below the age of 18 years.
- The Act recognizes that both girls and boys can be victims of sexual abuse.
- The Act provides punishment as per the gravity of offence.
- Non-reporting has been made a specific offence under the POCSO Act.
- A victim can report an offence at any time, even a number of years after the abuse has been committed.
- It prohibits disclosure of the victim's identity in any form of media, except when permitted by the special courts established under the act.

63. ENACT Partnership

- Recently, six new countries and a United Nations agency joined the ENACT Partnership.
- Enhancing Nature-based Solutions for an Accelerated Climate Transformation (ENACT) was launched by Germany and Egypt along with IUCN.
- It was launched at the COP27, which took place at Sharm el-Sheikh, Egypt in 2022.
- Objective
 - To coordinate global efforts to address climate change, land and ecosystem degradation, and biodiversity loss through Nature-based Solutions.
 - To enhance the protection from and resilience to climate impacts of at least 1 billion vulnerable people.
 - To secure up to 2.4 billion hectares of healthy natural and sustainable ecosystems, and significantly increase global mitigation efforts through protecting and restoring carbon-rich ecosystems.
- The International Union for Conservation of Nature (IUCN) hosts its secretariat.
- Other Members: Canada, European Union, France, Japan, Malawi, Norway, Republic of Korea, Slovenia, Belgium, Pakistan, Spain, the Netherlands, Switzerland and the United States.

64. Barracuda

- Barracuda, claimed to be India's fastest solar-electric boat, was launched at the Navalt Solar and Electric Boats yard in Alappuzha, Kerala.
- The vessel, named after the swift fish, is designed for eco-friendly maritime transportation.
- The Barracuda, designed by Navalt, is equipped to operate in rough seas.
- The boat can achieve a top speed of 12.5 knots (23 km/h) and has a range of seven hours on a single charge.
- It is engineered to navigate waves as tall as four metres and operates silently without noise, vibration, or air pollution.
- It is suitable for workboat applications and is intended to contribute to cleaner and quieter oceans as an affordable substitute for conventional fossil-fueled boats.

65. Constitutional Monism

- In a parliamentary federal democracy, constitutional monism is a concept that pertains to the relationship between law at the centre and law enacted by states within a particular legal system.
- It is a perspective that emphasises the unity of the legal order, asserting that both law at the centre and states' law form a single, integrated legal system.
- In constitutional monism, there is a hierarchy of norms, with the constitution (or a constitutional document) at the apex.
- According to this perspective, law passed by the parliament is considered an integral part of the domestic legal system and is automatically incorporated at the level of states without the need for specific legislation.

- If there is a conflict between law passed by the parliament and any law enacted by a state of the union, the former prevails, as it is an inherent part of the national legal order.

66. Vyommitra

- Vyommitra is a combination of two Sanskrit words Vyoma (Space) and Mitra (Friend).
- It is a female robot designed and developed by the ISRO to fly aboard unmanned test missions ahead of the Gaganyaan human spaceflight mission.
- It is referred to as a half-humanoid robot as she doesn't have legs. However, she can bend forward and sideways.
- Besides going on uncrewed Gaganyaan missions, she will accompany astronauts on manned missions too.

67. Terai

- Terai, or Tarai, is a lowland belt of flat, alluvial land stretching along the Nepal-India border and running parallel to the lower ranges of the Himalayas.
- A strip of undulating former marshland, it stretches from the Yamuna River in the west to the Brahmaputra River in the east.
- It is the northern extension of the Gangetic Plain in India, commencing at about 300 metres above sea level and rising to about 1,000 metres at the foot of the Siwalik Range.
- In India, the Terai extends over the states of Haryana, Uttarakhand, Uttar Pradesh, Bihar, and West Bengal.
- It extends nearly 800 km from east to west and about 30-40 km from north to south.

68. Doosra App

- The Department of Telecommunications (DoT) in India recently issued an order to cease operations of the Doosra app to protect against spam messages or calls.
- Doosra app sells virtual mobile numbers that users can provide at shops or online, allowing them to safeguard their primary numbers.
- Users are required to provide identification, similar to traditional telecom firms, ensuring accountability.
- It offers virtual SMS inboxes that filter out spam messages and selectively allow incoming calls.
- Commonly used by companies like Amazon and Uber, it helps maintain user privacy when interacting with delivery agents or drivers.

69. Vijay Diwas

- The Nation is celebrating Vijay Diwas on December 16 to commemorate India's victory over Pakistan in 1971 Bangladesh Liberation war.
- On December 16, 1971, the chief of the Pakistani forces along with 93 thousand troops, had surrendered unconditionally to the allied forces consisting of Indian Army and Mukti Bahini, in Dhaka after their defeat in the Liberation war.
- The war resulted in the birth of Bangladesh, which was then East Pakistan.
- The day is also observed in Bangladesh as 'Bijoy Dibos', marking the country's formal independence from Pakistan.
- Eight months after the war, in August 1972, India and Pakistan settled the Shimla agreement.
- Under the agreement, India agreed to release the 93,000 Pakistani prisoners-of-war.

70. INS Tarmugli

- Recently, INS Tarmugli, a Fast Attack Craft has been commissioned into the Navy at a ceremony held at Naval Dockyard, Visakhapatnam.
- INS Tarmugli is the first Follow-on Water Jet Fast Attack Craft (WJFAC).

- It is an improved version of WJFAC, earlier constructed by GRSE.
- It is built by M/s Garden Reach Shipbuilders and Engineers Ltd (GRSE).
- It is conceived, designed and built indigenously.
- It would be deployed for coastal patrol and surveillance operations along the East Coast of India.
- It is named after a picturesque island in the Andaman group.
- The ship is capable of operating in shallow waters at high speeds and is equipped with enhanced fire power.
- It is built for extended coastal and offshore surveillance and patrolling.
- It is fitted with advanced MTU engines, water jet propulsion and the latest communication equipment.

71. Mumps

- Recently, Mumps cases in children are on rise in the states of Maharashtra and Telangana which has become a cause of concern for parents.
- Mumps is a contagious disease caused by a paramyxovirus.
- It can cause the parotid glands, the ones on each side of the face to swell and they may also be tender or painful.
- It is an acute disease which infects children and young adults.
- Humans are the only known host for mumps virus, which is spread via direct contact or by airborne droplets from the upper respiratory tract of infected individuals.
- Symptoms
 - After an incubation period of some 2 to 4 weeks mumps begins with non-specific symptoms such as myalgia, headache, malaise and low-grade fever.
 - Within days, these symptoms are followed by unilateral or bilateral swelling of the parotid salivary glands, with other salivary glands affected in 10% of cases.
 - Orchitis (a painful inflammation of the testes) occurs in 20% of young adult males who develop mumps.
- Treatment
 - There is no specific treatment for mumps.
 - The various symptoms may be relieved with medicines.
- Prevention: The best way to protect kids is to make sure they're immunised against mumps.

72. PACE (Plankton, Aerosol, Cloud, Ocean Ecosystem) Mission

- NASA is gearing up to enhance our understanding of Earth's atmosphere with the upcoming PACE mission, scheduled for launch in early 2024.
- The mission will employ advanced polarimeters to study the interplay of light, aerosols, and clouds, contributing to a deeper comprehension of their impact on air quality and climate.
- The PACE mission will not only analyse aerosols but also delve into studying the colour of the ocean.
- The primary science instrument for PACE is the Ocean Colour Instrument (OCI).
 - It is designed to measure the ocean's colour across a spectrum from ultraviolet to shortwave infrared.
- It will feature two polarimeters viz. the Spectro-polarimeter for Planetary Exploration (SPEXone) and the Hyper Angular Research Polarimeter (HARP2).
- This combination aims to provide improved atmospheric correction and a comprehensive range of aerosol and cloud science data beyond what the OCI alone could achieve.
- The synergistic payload of OCI, SPEXone and HARP2 is poised to make significant breakthroughs in aerosol-cloud-ocean research.

73. "Di tankia Chaula" Scheme

- The Odisha Chief Minister recently announced the extension of the State Food Security Scheme for five years, ensuring continued coverage for 10 lakh people who were left out of the NFSA.

- The beneficiaries, belonging to 3.14 lakh households, will receive free 5 kg of rice per month under the extended scheme.
- Odisha launched the subsidised rice scheme, known as "Di tankia Chaula," in 2008, well before the implementation of the NFSA.

74. Abel Prize

- Recently, Infosys founder said it was time to ponder why no Indian resident has ever won an Abel Prize for mathematics.
- The Abel Prize is a prize awarded annually by the King of Norway to one or more outstanding mathematicians.
- It is named after Norwegian mathematician Niels Henrik Abel (1802–1829) and directly modelled after the Nobel Prizes.
- It comes with a monetary award of 7.5 million Norwegian kroner (NOK).
- The laureates are selected by the Abel Committee, the members of which are appointed by the Norwegian Academy of Science and Letters.
- Srinivasa Varadhan, an Indian-American citizen won the Abel Prize in the year 2007 for his valuable contribution in "probability theory and in particular for creating a unified theory of large deviation".

75. Logistics Ease Across Different States (LEADS) Report, 2023

- Recently, the "Logistics Ease Across Different States (LEADS) 2023" Report was released.
- LEADS is an indigenous data-driven index to assess logistics infrastructure, services and human resources across all 36 states and union territories.
- Launched in 2018, it was conceived on the lines of the Logistics Performance Index (LPI) of World Bank in 2018 and has evolved over time.
 - The LPI relies entirely on perception-based surveys.
 - LEADS incorporates both perception as well as objectivity thereby enhancing robustness and comprehensiveness.
- LEADS gives insights to States and UTs for further revolutionary reform in the logistics sector, taking us towards our vision of Viksit Bharat.
- The report serves as a guide for stakeholders in the Logistics Sector by providing strategic insights.
- Achievers: Andhra Pradesh, Gujarat, Karnataka, Tamil Nadu
- 23 States/UTs have already notified their State Logistics Polices to align with the National Logistics Policy.
- Digital reforms such as PM GatiShakti, Logistics Data Bank, Unified Logistics Interface Platform (ULIP), GST are propelling India's improved ranking at global level.
- According to a report of the economic think tank NCAER, India's logistics cost is estimated in the range of 7.8% to 8.9%.

76. Ketamine

- Recently, the autopsy report for Matthew Perry, stated that the actor's cause of death was the "acute effects of ketamine"
- Ketamine, also known as Ketalar, is a medicine that doctors use to make people not feel pain during surgeries.
- It is derived from Phencyclidine (PCP), a hallucinogenic drug.
- It works by blocking the NMDA receptor in the brain and spinal cord, and increases the release of a neurotransmitter called glutamate.
- It is a dissociative anesthetic with psychedelic properties, used under strict medical supervision for anaesthesia and to treat depression, anxiety, PTSD, end-of-life distress, chronic pain, drug/alcohol problems, etc.
- Ketamine induces hallucinations, distorts sight and sound perceptions, leading to a sense of disconnection and loss of control, can lead to unconsciousness and memory loss.

- It is a Schedule X drug in India, which means it is tightly controlled and even monitored on a case-specific basis by the prescribing doctor.

77. Surat Diamond Bourse

- The Prime minister is set to inaugurate the world's largest corporate office hub, Surat Diamond Bourse.
- Surat Diamond Bourse is located in Khajod village, near Surat.
- It will also be a global centre for trading both rough and polished diamonds as well as jewellery.
- It is the world's largest interconnected building, as it houses over 4,500 interconnected offices.
- Diamond buyers from all corners of the world will get a global platform to trade at the Surat Diamond Bourse.
- The bourse will comprise a state-of-the-art 'Customs Clearance House' for Import-Export, a jewellery mall for retail jewellery business, and a facility for International Banking and Safe Vaults.
 - It is India's largest customs clearance house.
- Despite its mega size, the bourse minimises its environmental impact by adhering to the principles of Panchtattva, aligning with the five elements of nature.
- The Indian Green Building Council (IGBC) has awarded the building a platinum rating.

78. KAPP-3

- KAPP-3 is the country's first 700 MWe (megawatt electric) unit, and the biggest indigenously developed variant of the Pressurised Heavy Water Reactor (PHWR).
- Until now, the biggest reactor size of indigenous design was the 540 MWe, two of which have been deployed in Tarapur, Maharashtra.
- A PHWR is a nuclear power reactor, commonly using unenriched natural uranium as its fuel
 - That uses heavy water (deuterium oxide D₂O) as its coolant and moderator.
- PHWR technology was started in India in the late 1960s with the construction of the first 220 MWe reactor, Rajasthan Atomic Power Station (RAPS-1).
- State-owned Nuclear Power Corporation of India Ltd (NPCIL) had awarded the reactor-building contract for both KAPP-3 and 4 in 2010.

79. Criticality

- Criticality is the first step towards power production.
- A nuclear reactor is said to be critical when the nuclear fuel inside a reactor sustains a fission chain reaction.
- Each fission reaction releases a sufficient number of neutrons to sustain a series of reactions.
- Heat is produced in the event, which is used to generate steam that spins a turbine to create electricity.
- Fission is a process in which the nucleus of an atom splits into two or more smaller nuclei, and some byproducts.
- When the nucleus splits, the kinetic energy of the fission fragments (primary nuclei) is transferred to other atoms in the fuel as heat energy
 - Which is eventually used to produce steam to drive the turbines.

80. One Nation One Ration Card

- The ONORC scheme is being implemented under the National Food Security Act (NFSA).
- This system allows all NFSA beneficiaries, particularly migrant beneficiaries, to claim either full or part foodgrains from any Fair Price Shop (FPS) in the country
- It is through existing ration cards with biometric/Aadhaar authentication in a seamless manner.
- The system also allows their family members back home, if any, to claim the balance of foodgrains on the same ration card.
- The implementation of ONORC was initiated in August 2019.

81. JN.1 Virus

- Recently a case of the JN.1 subvariant of COVID-19 has been identified in Kerala during the continuous routine surveillance conducted by INSACOG.
- The JN.1 virus is a novel variant of Omicron subvariant BA.2.86 (called Pirola) with an additional spike protein mutation.
- It has the capability to spread rapidly and evade immunity, highlighting the need for continued monitoring and caution.
- Symptoms: fever, runny nose, sore throat, headache and mild gastrointestinal symptoms.

82. National Green Tribunal (NGT)

- A specialised body set up under the National Green Tribunal Act (2010).
- Objective: Effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources.
- With NGT, India became the third country to set up a specialised environmental tribunal, only after Australia and New Zealand
- NGT is guided by the principles of 'natural justice'.
- Mandated to make disposal of applications or appeals finally within 6 months of filing the same.
- An order/decision/award of Tribunal is executable as a decree of a civil court.
- An appeal against NGT lies to the Supreme Court, generally within ninety days from the date of communication.
- The NGT deals with civil cases under the seven laws related to the environment, these include:
 - The Water (Prevention and Control of Pollution) Act, 1974,
 - The Water (Prevention and Control of Pollution) Cess Act, 1977,
 - The Forest (Conservation) Act, 1980,
 - The Air (Prevention and Control of Pollution) Act, 1981,
 - The Environment (Protection) Act, 1986,
 - The Public Liability Insurance Act, 1991 and
 - The Biological Diversity Act, 2002.

83. Sargasso Sea

- Located entirely within the Atlantic Ocean, it is the only sea without a land boundary.
- Named for Sargassum, a holopelagic, golden drift algae that can aggregate to form extensive floating mats on the surface of the ocean.
- This extraordinary open-ocean ecosystem is bounded by currents circulating around the North Atlantic subtropical gyre.
- It is unique for supporting the centre of distribution and abundance for a community of continuously pelagic drift algae.
- The Gulf Stream establishes the Sargasso Sea's western boundary, while the Sea is further defined to the north by the North Atlantic Current, to the east by the Canary Current, and to the south by the North Atlantic Equatorial Current.
- Provides habitats, spawning areas, migration pathways and feeding grounds to a diverse assortment of flora and fauna.
- The Sargasso Sea is warmer, saltier and more acidic than it has ever been since measurements began in 1954.

84. The Anti-Defection Law

- The Anti-Defection Law passed in 1985 through the 52nd amendment added the Tenth Schedule to the Indian Constitution.
- It aimed to combat “the evil of political defections”.
- According to it, a member of a House belonging to any political party becomes disqualified, if
 - he voluntarily gives up his membership of such political party

- he votes or abstains from voting in such House contrary to directions issued by his political party and such act has not been condoned by the party
- If any independently elected member joins any political party.
- If any nominated member joins any political party after the expiry of six months.
- Any question regarding disqualification arising out of defection is to be decided by the presiding officer of the House.
- Exceptions
 - If a member goes out of his party as a result of a merger of the party with another party.
 - If a member, after being elected as the presiding officer of the House, voluntarily gives up the membership of his party or rejoins it after he ceases to hold that office.

85. Direct Tax

- A direct tax is one that is levied directly on the taxpayer and paid directly to the government by those who are subjected to it.
- The Central Board of Direct Taxes is responsible for levying and collecting direct taxes as well as formulating other direct tax policies.
- A taxpayer pays a government a direct tax for a variety of reasons, such as real property tax, personal property tax, income tax or asset taxes, Gift Tax, Capital Gains Tax, and so on.
- Direct Tax is one of the two main sources of revenue for the government. The indirect tax is the other.
- Every fiscal year, direct taxes account for roughly half of the government's revenue.
- To increase revenue, the government sets direct tax collection targets for each fiscal year.

86. The Pradhan Mantri Schools for Rising India (PM-SHRI) Yojana

- It is a centrally sponsored scheme for upgradation and development of more than 14500 Schools across the country.
- It aims at strengthening the selected existing schools from amongst schools managed by Central Government/ State/ UT Government/ local bodies.
- It will showcase all components of the National Education Policy 2020 and act as exemplar schools and also offer mentorship to other schools in their vicinity.

87. Open Market Sale Scheme

- The FCI from time to time sells surplus food grains from the central pool, especially wheat and rice, in the open market at pre-determined prices.
- FCI does this through e-auctions where open market bidders can buy specified quantities.
- States are allowed to procure food grains through the OMSS without participating in the auctions.
 - This is for their needs beyond what they get from the central pool to distribute to NFSA (National Food Security Act) beneficiaries.
- Purpose
 - To dispose off surplus stocks of food grains held by FCI
 - To regulate the prices in the open market.
- Process of sale
 - FCI conducts weekly auctions on the National Commodity and Derivatives Exchange Limited (NCDEX) platform.

88. Swarved Mahamandir

- The Prime Minister recently inaugurated the world's largest meditation centre, Swarved Mahamandir, in Varanasi, Uttar Pradesh.
- The temple is named after the Swarved, a spiritual literature written by Sadguru Shri Sadafal Deoji Maharaj, the creator of Vihangam Yoga.
- The temple propagates Swarveda teachings, with a focus on Brahma Vidya.
 - Brahma Vidya is a body of knowledge that enables spiritual seekers to sustain a state of perfect Zen, a state of unyielding constancy in peace and happiness.

- It is a seven-floor superstructure with a beautiful design with 125-petal lotus domes.
- The ceiling and doors with intricate carvings are made of teakwood.
- The pink sandstone decor surrounds the temple walls, and there is an exquisite garden with medicinal herbs.
- Verses of the Swarveda have been carved upon the walls of the Mahamandir.

89. National Geoscience Data Repository Portal

- It is a comprehensive online platform for accessing, sharing and analysing geospatial information across India.
- It was spearheaded by the Geological Survey of India (GSI) and Bhaskaracharya Institute of Space Applications and Geoinformatics (BISAG-N).
- It represents a significant leap forward in democratising critical geoscience data, empowering stakeholders across industries and academia with unprecedented access to invaluable resources.

90. District Mineral Foundation (DMF)

- It is a trust set up as a non-profit body under the Mines and Minerals (Development and Regulation) Amendment Act, 2015.
- Objective: To work in the interest and benefits of persons and areas affected by mining-related operations as prescribed by the respective State Government.
- Funding
 - Through the contributions from the holders of major or minor mineral concessions in the district, as prescribed by the Central or State Government.
 - The fund for DMF is collected at the district level.
- The operation of DMFs falls under the jurisdiction of the relevant State Government.
- The composition and functions of the District Mineral Foundation shall be such as may be prescribed by the State Government.

91. Greenwashing

- The term greenwashing was first used in 1986 by Jay Westerveld, an American environmentalist and researcher.
- Greenwashing is a deceptive practice where companies or even governments exaggerate their actions and their impact on mitigating climate change, often providing misleading information or making unverifiable claims.
- It is an attempt to capitalise on the growing demand for environmentally sound products.
- It is fairly widespread, and entities often label various activities as climate-friendly without verifiable evidence, undermining genuine efforts against climate change.
- Example: The Volkswagen scandal where the German car company was found to have been cheating in emissions testing of its supposedly green diesel vehicles.

92. Cholera

- It is an acute diarrhoeal infection caused by ingestion of food or water contaminated with the bacterium *Vibrio cholerae*.
- It remains a global threat to public health and an indicator of inequity and lack of social development.
- Symptoms
 - It is an extremely virulent disease that can cause severe acute watery diarrhoea.
 - Profuse watery diarrhoea, vomiting, leg cramps etc.
- The disease can spread rapidly in areas with inadequate sewage and drinking water treatment.
- Currently, there are three WHO pre-qualified oral cholera vaccines (OCV), Dukoral, Shanchol and Euvichol-Plus.
- All three vaccines require two doses for full protection.

93. Lumpy Skin Disease (LSD)

- LSD is caused by the lumpy skin disease virus (LSDV) of the capripoxvirus genus in the poxviridae family.
- The LSDV mainly affects cattle - cow and its progeny, and the Asian water buffaloes.
- Transmission
 - Through blood-sucking vectors like ticks and mites like houseflies, mosquitoes, etc.
 - It also spreads through contaminated water, fodder and feed.
 - The free-ranging cattle could also be a reason for the rapid spread of LSD.
- Symptoms
 - LSDV attacks the circulatory system of an animal and causes inflammation of blood vessels and lesions in various organs like liver, lungs, spleen, lymph nodes etc.
 - In turn, it causes epidermis, making the outer surface of the skin to get separated from dermis - the inner layer of the skin.
 - This, in turn, leads to formation of lumps or nodules on an animal's body.
 - Fever, increased mucus secretion, loss of appetite etc are among other symptoms.

94. Mithila

- In the Vishnu Puran, Mithila is described as a place to the north of Ganga and south of Himalayas.
- Abul Fazl in Ain-e-Akbari clearly mentions Mithila as one of the parganas (administrative divisions), earmarking its location and spread
- It includes the present-day Darbhanga, Madhubani, Sitamarhi, Supaul, Saharsa, Madhepura and some adjoining areas of Bihar and Nepal.
- Mithila has also been called Mahla, and finds mention in the revenue records of the erstwhile Sanyukt Prant (United Provinces) of Bihar, Bengal and Orissa.

95. Janakpuri

- It is a relatively modern name for Mithilapuri, which is mentioned in Valmiki Ramayan.
- Our government, in coordination with the Nepal government, has made Janakpuri a part of the Ramayana Circuit.
- Janakpur became a part of Nepal after the 1816 Indo-Nepal treaty.
- Even the leading historian on Nepal, Francis Buchanan Hamilton, has not written anything about 'Janakpuri'. What we have is a mention of Mithilapuri.

96. Mullaperiyar Dam

- It is a masonry gravity dam situated on the Periyar River in Thekkady, Idukki district, in Kerala.
- It is located 881 m above sea level, on the Cardamom Hills of the Western Ghats.
- The dam is built at the confluence of the Mullayar and Periyar rivers.
- Its construction began in 1887 and was completed in 1895.
- The construction was carried out by the British Corps of Royal Engineers under the leadership of Pennycuik.
- The dam was constructed with limestone and "Surkhi" (burnt brick powder and a mixture of sugar and calcium oxide).
- The dam's purpose was to divert the waters of the west-flowing River Periyar eastward to the arid rain shadow regions of the Theni, Madurai, Sivaganga, and Ramanathapuram districts of Tamil Nadu.

97. Andriamanelo Cave

- It is situated in the western Madagascar.
- It is located in karstified limestone of the Paysage Harmonieux Protege de Beanka.
- In this cave truly pictorial art, depicting images of nature with human-like and animal-like figures have been discovered.

- The dramatic discoveries contained several surprises, including hints at some remarkable cultural connections.
- First, scenes depicted in some cases linked up fairly directly to Egyptian religious motifs from the Ptolemaic period (300-30 BCE).

98. UNESCO's Prix Versailles 2023

- The Prix Versailles, established in 2015, focuses on intelligent sustainability as a cultural driver.
- It acknowledges innovation, creativity, reflection of local heritage, ecological efficiency, and values of social interaction.
- Terminal 2 (T2) of Kempegowda International Airport (KIA) in Bengaluru has been awarded the world special prize for interiors at the UNESCO's 2023 Prix Versailles.
- The award acknowledges T2 as one of the world's most beautiful airports, emphasizing intelligent sustainability and cultural significance.
- T2 is known as the "Terminal in a Garden" built upon four foundational pillars viz. technological leadership, environmental stewardship, celebration of local heritage, and a terminal in a garden concept.
- T2 is the world's largest terminal pre-certified with a Platinum LEED rating by the US Green Building Council before operational commencement.
- The terminal also garnered the prestigious Platinum certification under the IGBC Green New Building rating system.
- T2's design reflects a celebration of Karnataka's rich heritage and culture, creating a distinctive gateway that leaves a lasting impression on global travellers.

99. Namdapha Flying Squirrel

- The Namdapha flying squirrel (*Biswamoyopterus biswasi*) has been recently rediscovered in Arunachal Pradesh after being last described in 1981.
- It is among the 25 "most wanted lost" species that are the focus of Global Wildlife Conservation's "Search for Lost Species" initiative.
- Restricted to a single valley in the Namdapha Tiger Reserve in Arunachal Pradesh
- Habitat: dry deciduous montane forests occupying moist forest tracts along streams
- It is an arboreal and nocturnal flying squirrel.
- Threats
 - Poaching of animals for food
 - Habitat loss and degradation
 - Landslides and floods that results in habitat loss
- IUCN Status: Critically endangered

100. Press and Registration of Periodicals Bill, 2023

- The Parliament recently passed the Press and Registration of Periodicals Bill.
- It replaces the Press and Registration of Books Act, 1867.
- Objective: To make the process of allotment of title and registration of periodicals simple through an online system without the requirement of physical interface.
- The Bill will make it mandatory for digital news platforms to do a "one-time registration" in order to operate.
- The Bill empowers the PRG to suspend/cancel registration.
- The Bill also seeks to do away with two provisions that required publishers and printers to file a declaration before the DM.
- The new Bill also provides for an appellate authority.
 - The Appellate Board (Press and Registration Appellate Board) will comprise chairperson, Press Council of India (PCI), and two members of PCI to hear an appeal against
 - Refusal of grant of registration
 - Imposition of any penalty or suspension/cancellation of registration by PRG

101. Polar Stratospheric Clouds (PSC)

- These are also known as nacreous clouds or mother of pearl, due to their iridescence.
- These are formed in very cold conditions over Polar Regions and within the stratosphere far above our normal clouds.
- These clouds are made of smaller ice particles than those that form more common clouds.
- These small particles help to scatter light in a different way, which gives them their unique appearance
- PSCs typically make their first appearance in January.
- The frequency of these clouds is often a harbinger of ozone depletion, as they play a crucial role in stratospheric chemistry.

102. Sahitya Akademi Award

- It is awarded for the most outstanding books of literary merit published in any of the major Indian languages recognised by the Akademi.
- Akademi gives 24 awards annually to literary works in the languages it has recognized and an equal number of awards to literary translations from and into the languages of India.
- Besides the 22 languages enumerated in the Constitution of India, the Sahitya Akademi has recognised English and Rajasthani as languages in which its programme may be implemented.

103. National Cooperative Exports Limited

- It was set up by the Ministry of Cooperation under the Multi-State Cooperative Societies (MSCS) Act, 2002.
- It will provide a complete ecosystem for the promotion of exports mainly of Agri commodities for the benefit of our farmers, in which India has a comparative advantage.
- All cooperative societies from the level of primary to apex that are interested in exports are eligible to become members.

104. Valmiki Tiger Reserve

- It is located at the India-Nepal border in the West Champaran district of Bihar.
- It is situated in the Gangetic Plains biogeographic zone of the country.
- It forms the easternmost limit of the Himalayan Terai forests in India and is the only tiger reserve in Bihar.
- It comprises the Valmiki National Park and Valmiki Wildlife Sanctuary.
- It is surrounded by the Royal Chitwan National Park of Nepal in the north and the river Gandak on the western side.
- Rivers Gandak, Pandai, Manor, Harha, Masan, and Bhapsa flow through various parts of the reserve.

105. R21/Matrix-M Malaria Vaccine

- The World Health Organization (WHO) added the R21/Matrix-M malaria vaccine to its list of prequalified vaccines.
- The R21 Vaccine It is developed by the Oxford University and manufactured by the Serum Institute of India,
- It is the second malaria vaccine prequalified by WHO, following the RTS,S/AS01 vaccine which had obtained prequalification status in July 2022.
- Prequalification means larger access to vaccines as a key tool to prevent malaria in children.
- As part of the prequalification process, WHO applies international standards to comprehensively evaluate and determine whether vaccines are safe, effective, and manufactured to international standards.
- WHO also ensures the continued safety and efficacy of prequalified vaccines through, for example, regular re-evaluation, site inspection, and targeted testing.

106. Wildlife Trust of India

- Experts from the Wildlife Trust of India (WTI) and the Besant Memorial Animal Dispensary (BMAD) are planning to establish feeding stations for birds at the Ennore creek.
- It is a non-profit conservation organisation, committed to urgent action that works towards the protection of India's wildlife.
- It was formed in November 1998, in response to the rapidly deteriorating condition of the country's wildlife.
- The principal concerns of WTI include crisis management and provision of quick, efficient aid to individuals, species or habitats that require it the most.

107. PM-AJAY Scheme

- Pradhan Mantri Anusuchit Jaati Abhyuday Yojana (PM- AJAY) is a 100% Centrally Sponsored Scheme.
- It is a merged scheme of three Centrally Sponsored Schemes, namely
 - Pradhan Mantri Adarsh Gram Yojana (PMAGY)
 - Special Central Assistance to Scheduled Castes Sub Plan (SCA to SCSP)
 - Babu Jagjivan Ram Chhatrawas Yojana (BJRCY)
- Objectives
 - To increase the income of the target population by way of various income generating schemes, skill development and infrastructure development.
 - To reduce the poverty among the target population and bring them above the poverty lines.
- Eligibility Criteria
 - The Scheduled Castes persons living below the poverty lines are eligible for getting benefits under this scheme.
 - In case of Infrastructure Development, the villages having 50% or more SC population are eligible for grants under the Scheme.

108. Light Combat Aircraft Programme

- The Light Combat Aircraft (LCA) programme began in the 1980s to replace India's ageing MiG-21 fighters.
- It later became part of the general fleet modernisation programme.
- In 2003, the LCA was officially named "Tejas".
- It is India's first self-made fighter jet and received the final operational clearance for induction into the air force as a fully-weaponized fighter jet in February 2019.
- It is the second supersonic fighter jet that has been developed by the Hindustan Aeronautics Limited (the first one being HAL HF-24 Marut).

109. Light Combat Helicopter Programme

- It was proposed to meet IAF's requirement of a dedicated light helicopter for combat operations.
- It was during the 1999 Kargil war that the need was first felt for a homegrown lightweight assault helicopter that could hold precision strikes in all Indian battlefield scenarios.
- The government sanctioned the LCH project in 2006 and HAL was tasked to develop it.
- The HAL Prachand is an Indian multi-role light attack helicopter designed and manufactured by the HAL under Project LCH.
- The LCH is the only attack helicopter in the world which can land and take off at an altitude of 5,000 meters with a considerable load of weapons and fuel.

110. Ennore Creek

- It is a backwater located in Thiruvallur District, Tamil Nadu.
- It is an arm of the Kosathalaiyar River.
- The Creek meets the Bay of Bengal at Mugathwara Kuppam, while the northern channel of the creek connects to the Pulicat Lake, the second largest brackish water lake in the country.

- The Ennore Creek, along with the Buckingham Canal and the rest of the Pulicat water system has vast importance for the local fisher folk.
- It nurtures a healthy aquatic ecosystem which was once famous for its rich biodiversity.

111. Winter Solstice

- The winter solstice marks the shortest day of the year.
- The Earth is tilted 23.4 degrees on its axis, so if the Earth's pole is pointing towards or away from the Sun during the day, the arc the Sun travels through will rise and fall during the year.
- Winter Solstice happens when one of the Earth's poles is far away from the Sun.
- It falls on December 21 or 22 in the Northern Hemisphere and June 20 or 21 in the Southern Hemisphere.
- The word solstice is derived from the Latin word solstitium, where 'sol' means Sun and 'stitium' means to stop.
- During the winter solstice, the days are the shortest. The duration of daylight will vary across countries.
- The winter solstice is significant in many cultures since it marks the symbolic death and rebirth of the Sun. Ancient monuments like Stonehenge are aligned with the sunrise or sunset on the winter solstice.

112. Pantoea Tagorei

- Recently, a team of researchers identified a new species of bacteria which has been named Pantoea Tagorei in homage to Nobel Laureate Rabindranath Tagore.
- Pantoea Tagorei was discovered from soil samples collected in the Jharia coal mines.
- It has unique properties beneficial for plant growth.
- It not only solubilizes potassium but also replenishes nitrogen.
- This bacteria marks a significant stride toward fostering environmentally friendly agricultural methods.

113. Project PRAYAS

- Recently, the International Organisation for Migration (IOM) launched Project PRAYAS.
- Promoting Regular Assisted Migration for Youth and Skilled Professionals (PRAYAS) was launched in partnership with the Ministry of External Affairs (MEA).
- Objective: To help Indian workers and students migrate in a secure, orderly, and regular manner.
- It is one of the first attempts to consolidate all the state-level initiatives for safe, orderly, and well-managed international migration.
- It aims to undertake a study, capturing the key migration trends, the needs and aspirations of migrants, and the major international migration and mobility initiatives taken by the union, as well as the state governments sharing the analysis with the ministry.

114. Pappathi Chola

- Known for its high butterfly population, it derived its name from the Tamil word Pappathi meaning butterflies and Chola means shola land.
- It is also regarded as a hub of balsams (Impatiens balsamina) and rare varieties of orchids.
- It is located right in the middle of the Chathurangappara hills and Mathikettan shola.
- This area is covered with eucalyptus trees.
- Many butterflies reach the area during their migratory course from the rain shadow forests of Tamil Nadu back to the higher elevations of Munnar.

115. BRAHMA (Braided River Aid: Hydro-Morphological Analyzer) - 2D

- Recently, the researchers at the IIT Guwahati developed an indigenous river model, BRAHMA-2D.

- It was developed in collaboration with the Brahmaputra Board under the Union Ministry of Jal Shakti.
- BRAHMA-2D is a mathematical model to gauge the flow of large braided rivers like the Brahmaputra.
- It is a quasi-3D river flow model which helps to understand how fast the water moves at different depths inside a river and its circulation around a structure like a spur.
- It can help engineers in the design of sustainable hydraulic structures and other river bank protection measures in order to check river bank erosion.
- It was successfully validated on the Brahmaputra River near Majuli Island, in Assam, which is prone to river bank erosion.
- It integrates a two-dimensional model of water movement with a theory about entropy, a measure of disorder or randomness.
- Specifically, it observes a dip phenomenon near spurs where the flow of water underneath increases, a phenomenon absent at points away from these structures.
- It has also been applied to understand the habitat suitability of aquatic species, especially endangered species, based on the availability of the required depth and flow velocity

116. Bad Cholesterol

- A novel vaccine aimed at reducing "bad" cholesterol has been created.
- Cholesterol is a waxy, fat-like substance that's found in all the cells in the human body.
- Human liver makes cholesterol, and it is also in some foods, such as meat and dairy products.
- Human body needs some cholesterol to work properly.
- Two types of lipoproteins carry cholesterol throughout the body viz. LDL (low-density lipoprotein) and HDL (high-density lipoprotein).
 - LDL cholesterol, sometimes called "bad" cholesterol, makes up most of the body's cholesterol.
 - A high LDL level leads to a buildup of cholesterol in arteries.
 - HDL cholesterol is sometimes called "good" cholesterol, because it carries cholesterol from other parts of the body back to the liver, which then removes the cholesterol from the body.

117. Foreign Portfolio Investment (FPI)

- It consists of securities and other financial assets passively held by foreign investors.
- It does not provide the investor with direct ownership of financial assets and is relatively liquid depending on the volatility of the market.
- FPI is more liquid, volatile and therefore riskier than FDI.
- FPI is often referred to as "hot money" because of its tendency to flee at the first signs of trouble in an economy.
- It is part of a country's capital account and is shown on its Balance of Payments (BOP).
- Examples: Stocks, bonds, mutual funds, exchange traded funds, American Depositary Receipts (ADRs) and Global Depositary Receipts (GDRs).

118. Disinvestment

- It involves the sale of government stake in public sector enterprises to strategic or financial buyers.
- This can be done either through the sale of shares on stock exchanges or through the sale of shares directly to buyers.
- Purpose
 - To finance various social and infrastructure projects
 - To reduce the government's fiscal deficit.
- In India, the disinvestment process is conducted by the Department of Investment and Public Asset Management (DIPAM) under the Ministry of Finance.
- The National Investment Fund (NIF) was constituted in 2005 into which the proceeds from disinvestment of Central Public Sector Enterprises were to be channelized.

119. Leprosy

- Leprosy, also known as Hansen's disease, is a chronic infectious disease caused by a type of bacteria, Mycobacterium leprae.
- The disease predominantly affects the skin and peripheral nerves.
- Left untreated, the disease may cause progressive and permanent disabilities.
- It is more common in tropical and subtropical areas.
- It is a neglected tropical disease (NTD) which still occurs in more than 120 countries.
- It is known to occur at all ages ranging from early childhood to old age.
- It is transmitted via droplets, from the nose and mouth, during close and frequent contact with untreated cases.
- The main symptom of leprosy is disfiguring skin sores, lumps, or bumps that don't go away after several weeks or months.
- It is curable with multidrug therapy (MDT) and treatment during early stages can prevent disability.

120. Indian Ocean Naval Symposium

- Recently, the 8th edition of Indian Ocean Naval Symposium (IONS) Conclave of Chiefs (CoC) was conducted.
- The 'Indian Ocean Naval Symposium' (IONS) is a voluntary initiative.
- Objective: To increase maritime cooperation among navies of the littoral states of the Indian Ocean Region by providing an open and inclusive forum for discussion of regionally relevant maritime issues.
- It was conceived by the Indian Navy in 2008 as a forum which seeks to enhance maritime cooperation among Navies of the littoral states of the Indian Ocean Region.

121. Strait of Gibraltar

- Iran has recently threatened to close the Strait of Gibraltar and the Mediterranean Sea unless Israel stops bombing Gaza.
- The Strait of Gibraltar is a narrow waterway separating Europe from Africa and connecting the Mediterranean Sea to the Atlantic Ocean.
- Until the opening of the Suez Canal in 1869, the Strait of Gibraltar served as the only access point to the Mediterranean Sea.
- It is bordered by Spain and the British Overseas Territory of Gibraltar in the north, and by the African country of Morocco and the Spanish exclave of Ceuta in the south.
- It forms a significant gap between the high plateau of Spain and the Atlas Mountains of Northern Africa.
- Geological studies have revealed that the strait was formed due to the northward movement of the African Plate towards the European Plate.
- It is one of the busiest waterways in the world.
- An important port located on the strait is the Moroccan port of Tanger-Med, near Tangier.

122. Fiscal Deficit

- Fiscal deficit is the difference between the government's total expenditure and its total revenue (excluding borrowings).
- It is an indicator of the extent to which the government must borrow in order to finance its operations and is expressed as a percentage of the country's GDP.
- A high fiscal deficit can lead to inflation, devaluation of the currency and an increase in the debt burden.
- While a lower fiscal deficit is seen as a positive sign of fiscal discipline and a healthy economy.

123. Current Account Deficit

- Current account deficit (CAD) is when the value of a country's imports of goods and services is greater than its exports.
- CAD and fiscal deficit together make up twin deficits that can impact the stock market and investors.
- The CAD is significant because it affects the economy, stock markets, and people's investments.
- A lower CAD can boost investor sentiment and make the country's currency more attractive to investors.
- A surplus in the current account indicates that money is flowing into the country, which can boost foreign exchange reserves and the value of the local currency.

124. OSIRIS-APEX

- OSIRIS-REx, the spacecraft that delivered asteroid samples from Bennu, has embarked on a new mission, and NASA has renamed it as OSIRIS-APEX.
- OSIRIS-APEX is a mission to study the physical changes to asteroid Apophis that will result from its rare close encounter with Earth in April 2029.
- Objective: To observe the physical changes induced by Earth's gravitational pull during Apophis' flyby.
- These changes could include alterations in the asteroid's orbit, rotation speed, and surface features such as quakes or landslides.
- Additionally, the OSIRIS-APEX spacecraft will dip toward the surface of Apophis.

125. MedTech Mitra portal

- Recently, the Union Minister of Health and Family Welfare launched the MedTech Mitra portal.
- It is an online portal that aims to assist medtech innovators in clinical evaluation, regulatory facilitation, and uptake of new products.
- The portal will be coordinated collaboratively by the Indian Council of Medical Research (ICMR) and the Central Drugs Standard Control Organisation (CDSCO), under the guidance of NITI Aayog's Atal Innovation Mission.
- The MedTech Mitra platform, along with the recent medical devices policy and the production-linked incentive scheme, will together provide a boost to the medical devices sector and encourage domestic manufacturing of these devices.

126. Chandra River

- It is one of the two rivers (other being the Bhaga River) that merge to form the Chenab River in the Lahaul region of Himachal Pradesh.
- It rises in the snows lying at the base of the main Himalayan range in the Lahaul and Spiti districts, Himachal Pradesh.
- It flows for a considerable distance along the base of this range in a southeasterly direction before turning completely and taking a south-westerly course in the Spiti Valley.
- It flows on to merge with the Bhaga River downstream of Keylong.
- The beautiful Chandra Tal Lake has formed at its source.

127. Qiantang River

- It is a southeast Chinese River that originates on the borders of Anhui and Jiangxi provinces.
- It runs for 459 kilometres through Zhejiang, passing through the capital city - Hangzhou and Yanguan Town, Haining, Jiaying City before flowing into the East China Sea via Hangzhou Bay.
- The river is also the southern terminal of the ancient Grand Canal that links five major rivers in China from north to south, enabling traffic north to Beijing from Hangzhou via the Canal.
- It is encircled by a group of economically booming cities, including Shanghai, the leading industrial and commercial hub of the country, and Ningbo, one of China's leading port cities.

- The spectacular Qiantang River Tidal Bore is known as one of the largest tidal bores in the world. The highest tidal bore can reach up to 9 metres (30 feet) high.

128. AS-24 Killjoy

- It is the western reporting name of the Kh-47M2 (Kinzhal), a nuclear-capable, Russian air-launched hypersonic ballistic missile.
- It was one of six “next generation” weapons unveiled by Russian President Vladimir Putin during a speech in March 2018.
- It can reach speeds of up to Mach 10(12,350 km/hr).
- It can carry both conventional and nuclear warheads with a payload of up to 480 kg and a thermonuclear option with a 10-50 kt warhead.
- It has a reported range of 1,500-2,000 km.
- It has a length of 8 m, a body diameter of 1 m, and a launch weight of approximately 4,300 kg.
- It is designed to be launched from MiG-31 fighter jets at altitudes of about 18 km (59,000 ft).
- This missile manoeuvres during all stages of its flight to overcome hostile air defence systems.

129. South China Sea

- It is an arm of the western Pacific Ocean that borders the Southeast Asian mainland.
- It is bordered by China, Taiwan, the Philippines, Malaysia, Indonesia, Brunei, and Vietnam.
- The southern boundary of the South China Sea is a rise in the seabed between Sumatra and Borneo
 - the northern boundary stretches from the northernmost point of Taiwan to the coast of Fujian province, China, in the Taiwan Strait.
- It is connected by the Taiwan Strait with the East China Sea and by the Luzon Strait with the Philippine Sea (both marginal seas of the Pacific Ocean).
- The South China Sea and the East China Sea together form the China Sea.

130. Cryptocurrency

- A digital or virtual currency that uses cryptography for security.
- It is a decentralised currency i.e. it is not controlled by any government or institution.
- Examples: Bitcoin, Ethereum, and Litecoin.
- To use cryptocurrency, one must first acquire a digital wallet, which is a software program that stores the user's public and private keys.
- These keys are used to send and receive cryptocurrency and verify transactions on the blockchain.
- Users can acquire cryptocurrency through a process called "mining".
- It involves using computer power to solve complex mathematical equations.
- This validates and records transactions on the blockchain, in return for a certain amount of cryptocurrency.
- Transactions with cryptocurrency are recorded on a public digital ledger called blockchain.
- This ledger is maintained by a network of computers around the world.
- Each new transaction is verified and added to the blockchain by these computers.
- This decentralization and use of cryptography makes it difficult for anyone to manipulate the currency or the transactions recorded on the blockchain.

131. Social Stock Exchange

- Introduced in the FY20 Budget, SSEs function as a separate segment within the existing stock exchange.
- It helps social enterprises raise funds from the public through its mechanism promoting impact investing and sustainability.
- It would serve as a medium for enterprises to seek finance for their social initiatives, acquire visibility and provide increased transparency.
- Retail investors can only invest in securities offered by for-profit Social Enterprises (SEs) under the main Board.

- In all other cases, only institutional investors and non-institutional investors can invest in securities issued by SEs.
- Any social enterprise, Non-Profit Organisation or For-Profit Social Enterprises, that establishes its primacy of social intent can get registered or listed.
- Listing on SSE imposes checks and balances, necessitating disclosure of fundraising purposes and providing a timeline for fund utilisation.
- Social audit firms will audit annual impact reports, enhancing transparency and accountability.

132. PM-JANMAN

- The extensive Rs 24,104-crore tribal welfare scheme, is one of the largest Central schemes and the largest targeting the tribal community in terms of outlay.
- Objective: To provide several facilities to Particularly Vulnerable Tribal Groups (PVTGs).
 - Housing: Provision for around 4.9 lakh pucca houses at Rs 2.39 lakh per house.
 - Hostels: 500 hostels at Rs 2.75 crore per unit.
 - Anganwadi Centres: Establishment of 2,500 Anganwadi centres.
 - Connectivity: Installation of mobile towers in 3,000 villages and 8,000 km of road connectivity.
- Nine ministries will collaborate for effective implementation.
- Rs 15,000 will be made available under the Development Action Plan for Scheduled Tribes to implement the mission over the next three years
- Ministry of Ayush to establish wellness centres in these areas.
- Extension of Ayush facilities to PVTG habitations through mobile medical units.
- Ministry of Skill Development and Entrepreneurship to enable skill and vocational training in PVTG habitations.
- Target Population
 - 75 tribal communities in 18 states and the Union Territory of Andaman and Nicobar Islands categorized as PVTGs.
 - Backward in social, economic, and education indicators.

133. Gulf of Mexico

- It is a marginal sea of the Atlantic Ocean and the world's largest gulf.
- It is connected to the Caribbean Sea via the Yucatán Channel (between Cuba and Mexico) and to the Atlantic Ocean through the Straits of Florida (between Cuba and the US).
- Covering over 1.6 million square kilometres, it is one of the oldest water bodies on Earth. It was formed in the late Triassic period, around 300 million years ago.
- It is somewhat shallow, along the coastal continental shelf areas and has an average depth of 1,615m.
- The climate of the region varies from tropical to subtropical.

134. Foreign Exchange Management Act (FEMA)

- FEMA came in 1999 as a successor to the Foreign Exchange Regulation Act, or FERA, of 1973, with changing economic conditions in a post-liberalisation India.
- Objective: To facilitate external trade and payments and promote the orderly development and maintenance of the foreign exchange market in India.
- FEMA deals with provisions relating to procedures, formalities, dealings, etc. of foreign exchange transactions in India.
- It regulates various aspects of foreign exchange transactions, including the acquisition and holding of foreign exchange, the payment and settlement of foreign exchange transactions, the export and import of currency, and other related activities.
- The act also empowers the RBI to make rules and regulations to carry out the provisions of the act.

135. Index of Industrial Production

- IIP is an indicator that measures the changes in the volume of production of industrial products during a given period.
- It is a composite indicator that measures the growth rate of industry groups
 - The industry groups that it measures are classified as
 - Broad sectors like manufacturing, mining, and electricity.
 - Use-based sectors like capital goods, basic goods, intermediate goods, infrastructure goods, consumer durables, and consumer non-durables.
- It is used by government agencies including the Ministry of Finance, the Reserve Bank of India, etc, for policy-making purposes.
- It is compiled and published monthly by the National Statistical Office (NSO), Ministry of Statistics and Programme Implementation.
- Base Year for IIP is 2011-2012.

136. James Webb Space Telescope

- The telescope is the result of an international collaboration between NASA, the European Space Agency (ESA) and the Canadian Space Agency which was launched in December 2021.
- Objective: It will examine every phase of cosmic history, from the Big Bang to the formation of galaxies, stars, and planets to the evolution of our own Solar System.
- It is currently at the Sun-Earth L2 Lagrange point
- It's the largest, most powerful infrared space telescope ever built.
- It's the successor to the Hubble Telescope.
- It can see backwards in time to just after the Big Bang by looking for galaxies that are so far away that the light has taken many billions of years to get from those galaxies to our telescopes.
- It will focus on four main areas viz. the first light in the universe, the assembly of galaxies in the early universe, the birth of stars and protoplanetary systems, and planets (including the origins of life).

137. Financial Intelligence Unit India

- Set up in 2004, it is the central national agency responsible for receiving, processing, analyzing and disseminating information relating to suspect financial transactions.
- It is an independent body reporting directly to the Economic Intelligence Council (EIC) headed by the Finance Minister.
- Functions
 - Acts as the central reception point for receiving Cash Transaction reports (CTRs), Non-Profit Organisation Transaction Report (NTRs), Cross Border Wire Transfer Reports (CBWTRs), Reports on Purchase or Sale of Immovable Property (IPRs) and Suspicious Transaction Reports (STRs) from various reporting entities.
 - Analyzes received information in order to uncover patterns of transactions suggesting suspicion of money laundering and related crimes.
 - Shares information with national intelligence/law enforcement agencies, national regulatory authorities and foreign Financial Intelligence Units.
 - Establishes and maintains a national database on the basis of reports received from reporting entities.
 - Coordinates and strengthens collection and sharing of financial intelligence through an effective national, regional and global network to combat money laundering and related crimes.
 - Monitors and identifies strategic key areas on money laundering trends, typologies and developments.

138. Mian Tansen

- He was a prominent Indian classical music composer, musician and vocalist, known for a large number of compositions.

- He was also an instrumentalist who popularised and improved the plucked rabab (of Central Asian origin).
- He was among the Navaratnas (nine jewels) at the court of the Mughal Emperor Jalal ud-din Akbar.
- Akbar gave him the title 'Mian', an honorific, meaning learned man.
He is given credit for introducing some famous ragas, Miyan ki Malhar, Miyan ki Todi and Darbari.

139. Organised Crime and Corruption Reporting Project (OCCRP)

- The Organized Crime and Corruption Reporting Project is a global network of investigative journalists with staff on six continents.
- Founded in 2006, it specializes in organized crime and corruption.
- It publishes its stories through local media and in English and Russian through its website.
- The entity was involved in the coverage of Pegasus spyware as well as Panama Papers leak.
- The OCCRP conducted research and published a report on the Adani Group (AG).

140. Buddhism

- It started in India over 2,600 years ago as a way life that had a potential of transforming a person.
- It is one of the important religions of South and South-Eastern Asian countries.
- The religion is based upon the teachings, life experiences of its founder Siddhartha Gautam, born in circa 563 BCE.
- He was born into royal family of Sakya clan who ruled from Kapilvastu, in Lumbini which is situated near the Indo-Nepal Border.
- At the age of 29, Gautama left home and rejected his life of riches and embraced a lifestyle of asceticism, or extreme self-discipline.
- After 49 consecutive days of meditation, Gautama attained Bodhi (enlightenment) under a pipal tree at Bodhgaya, a village in Bihar.

141. National Association of Street Vendors of India

- NASVI is an organization working for the protection of the livelihood rights of thousands of street vendors across the country.
- The main objective was to bring together the street vendor organizations in India so as to collectively struggle for macro-level changes.
- The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act, 2014 was enacted to regulate street vendors in public areas and protect their rights.
- The Act defines a "street vendor" as a person engaged in vending of articles of everyday use or offering services to the general public, in any public place or private area,
 - from a temporary built-up structure or by moving from place to place.

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