

# General Studies

## Current Affair Test (August-2024)

### 1. Solution: (b)

Statement 3 is incorrect.

Power markets are hosted on a power exchange. Exchanges facilitate competitive pricing, improved resource allocation, and greater market liquidity in the power sector. Power exchanges were first introduced in Europe in 1990-91, and they now operate in about 50 countries around the world. The Electricity Act of 2003 established the framework for exchange operations in India, and exchanges commenced in 2008. The spot market was introduced in 2020, which further enhanced the flexibility and responsiveness of the power trading system. India has three major power exchanges regulated by the Central Electricity Regulatory Commission (CERC), where generators, utilities, and large consumers trade electricity. The Indian Energy Exchange Ltd (IEX) dominates with more than 90% market share, followed by Power Exchange India Limited (PXIL) and Hindustan Power Exchange Ltd (HPX).

### 2. Solution: (a)

Statement 2 is incorrect.

What is Money Market? While the G-Secs market generally caters to the investors with a long-term investment horizon, the money market provides investment avenues of short-term tenor. Money market transactions are generally used for funding the transactions in other markets including G-Secs market and meeting short term liquidity mismatches. By definition, money market is for a maximum tenor of one year. Within the one year, depending upon the tenors, money market is classified into:

3 Overnight market – The tenor of transactions is one working day. Notice money market – The tenor of the transactions is from 2 days to 14 days. Term money market – The tenor of the transactions is from 15 days to one year. What are the different money market instruments? Money market instruments include call money, repos, T- Bills, Cash Management Bills, Commercial Paper, Certificate of Deposit and Collateralized Borrowing and Lending Obligations (CBLO). Call money market: Call money market is a market for uncollateralized lending and borrowing of funds. This market is predominantly overnight and is open for participation to scheduled commercial banks and the primary dealers.

### 3. Solution: (a) Gini Coefficient:

- It is derived from the Lorenz Curve.
- It can be used as an indicator of economic

development in a country.

- The Gini Coefficient measures the degree of income equality in a population.
- The Gini Coefficient can vary from 0 (perfect equality) to 1 (perfect inequality).
- A Gini Coefficient of zero means that everyone has the same income, while a Coefficient of 1 represents a single individual receiving all the income.

### 4. Solution: (b)

Only Statement 1 is correct.

The Union Cabinet approved amendments to the Mines and Minerals (Development and Regulation) Act, 1957, specifying royalty rates for three critical and strategic minerals: Lithium, Niobium, and Rare Earth Elements (REEs). What are Royalty rates? Royalty rates are fees paid to the government for the extraction of minerals or resources from a specified area. 2nd Schedule of MMDRA 1957 deals with the royalty rates of minerals. These minerals were delisted from atomic minerals and can now be auctioned to the private sector. Presently, India's mineral royalty rates are among the highest in the world, thus impacting the competitiveness of the sector and putting an economic burden on mining companies.

### 5. Solution: (a)

Only Statement 3 is correct.

### 6. Solution: (a)

Statement 2 is incorrect.

#### Facilitation under Export Promotion of Capital Goods (EPCG) Scheme

- The EPCG Scheme, which allows import of capital goods at zero Customs duty for export production, was further rationalized. Some key changes are:
- Prime Minister Mega Integrated Textile Region and Apparel Parks (PM MITRA) scheme has been added as an additional scheme eligible to claim benefits under CSP (Common Service Provider) Scheme of Export Promotion capital Goods Scheme (EPCG).
- Dairy sector to be exempted from maintaining Average Export Obligation – to support dairy sector to upgrade the technology.
- Battery Electric Vehicles (BEV) of all types, Vertical Farming equipment, Wastewater Treatment and Recycling, Rainwater harvesting system and Rainwater Filters, and Green Hydrogen are added to Green Technology products – will now be eligible for reduced Export Obligation requirement under EPCG Scheme.

**7. Solution: (a)**

Statement 1 is incorrect.

**8. Solution: (b)**

Statement 3 is incorrect.

**9. Solution: (a)**

Statement 2 is incorrect.

Neo banks are financial institutions with only an online presence and function digitally. They offer all traditional bank services via a digital setup or mobile apps without having any physical branches. These are 100% digital banks. They cannot apply for a banking license. The expertise of these neo banks lies in tying technology and artificial intelligence together to offer personalized financial services to customers. It is offered at a minimal cost. Neo banks offer limited products like savings accounts, small loans, debit cards, etc. and not all services of banks.

**10. Solution: (a)**

Statement 2 is incorrect.

The labour force participation rate (LPR) is a measure of the proportion of a country's working-age population that is actively engaged in the labour market. The unemployment rate is the percentage of unemployed workers in the total labour force. The labour force includes all people who are employed or unemployed. The unemployment rate is calculated by dividing the number of unemployed people by the total labour force.

**11. Solution: (b)**

Only Statement 2 is correct. Changes in the design and form of bank notes and coins are decided by the Reserve Bank of India (RBI) and the central government. Any change in design of a currency note has to be approved by the RBI's Central Board and the central government. Changes in the design of coins are the prerogative of the central government. Section 22 of The Reserve Bank of India Act, 1934, gives RBI the "sole right" to issue banknotes in India. Section 25 states that "the design, form, and material of bank notes shall be such as may be approved by the Central Government after consideration of the recommendations made by the [RBI's] Central Board". The RBI's Department of Currency Management — headed by Deputy Governor — has the responsibility of administering the core function of currency management. According to the RBI website, the Department addresses policy and operational issues relating to the "designing of banknotes; forecasting demand for notes and coins; ensuring smooth distribution of banknotes and coins throughout the country and retrieval of unfit notes and uncurrent coins from circulation; ensuring the integrity of bank notes", etc.

**12. Solution: (b)**

Statement 1 is incorrect. The renewable energy certificates (REC) mechanism allows utilities to meet

renewable purchase obligations (RPOs) by buying RECs, each representing 1 MWh of renewable electricity. This system benefits states that lack sufficient renewable capacity, and enables them to purchase RECs for green energy generated elsewhere. Utilities that exceed RPO targets can trade extra RECs to allow other utilities to meet their targets.

**13. Solution: (a)**

Only Statement 1 is correct.

**14. Solution: (c)**

PET plastic, or polyethylene terephthalate, is a common type of plastic used to make bottles, containers, and synthetic fibres. It is known for its transparency, lightweight nature, and recyclability. PET is widely used for packaging beverages, food, and personal care products.

**15. Solution: (b)**

Statement 3 is incorrect.

- Balsams are sometimes referred to as 'touch-me-not' due to their tendency to burst and distribute mature seeds upon touch.
- Balsams are considered significant indicator species for climate change, reflecting alterations in plant populations when climate change occurs.
- Idukki district, where Munnar is located, is renowned for its diverse range of balsams, earning it the nickname of a "balsam paradise" among scientists. The high-altitude areas surrounding Anamudi, the highest mountain in the Western Ghats, are particularly known for their rich diversity of wild balsams.

**16. Solution: (a)**

Statement 1 is incorrect.

- Pangolins are among the most trafficked wild mammals globally.
- India is home to two species: o Indian Pangolin (EN), found across the subcontinent
  - ♦ Chinese Pangolin (CR), is found across a larger area in south Asia.
- Both species are included under India's Schedule I of the Wildlife Protection Act
- Appendix I of CITES (meaning they are most endangered)
- Ecological Importance: They play a vital role in ecosystem management, mostly in aerating and adding moisture to the soil as well as the succession of plant communities through burrowing.

**17. Solution: (d)**

Sundarbans is a mangrove area in the delta formed by the confluence of the Ganges, Brahmaputra and Meghna Rivers in the Bay of Bengal. Sundarban Reserve Forest of Bangladesh is the largest mangrove forest in the world. It contains Sundarbans Tiger Reserve, Sundarban Wetland, Sundarbans National Park and Biosphere Reserve. It is the only mangrove forest in the world inhabited by tigers.

**18. Solution: (b)**

Statement 2 is incorrect.

The Amazon River dolphin (*Inia geoffrensis*) is a species of toothed whale that lives in the rainforest rivers of South America. They are also known as the boto, bufeo, or pink river dolphin. Known for their striking pink colour, are a unique freshwater species in South America and face vulnerability due to slow reproductive cycles.

**19. Solution: (a)**

Only Statement 2 is correct.

Glaciers cover around 10% of the Earth's land surface, but they are shrinking rapidly across most parts of the world, leading to cascading impacts on downstream systems. What is Glacial Lake outburst flood (GLOF)? Retreating glaciers, like several in the Himalayas, usually result in the formation of lakes at their tips, called proglacial lakes, often bound only by sediments and boulders. If the boundaries of these lakes are breached, it can lead to large amounts of water rushing down, the way by picking up sediments, rocks, and other materials. A majority of the glaciers in the Himalayas are known to be receding, all leading to the formation of several glacial lakes. GLOFs are recognized in the National Disaster Management Plan (NDMP) 2019 of India as a potential climatological disaster.

**20. Solution: (a)**

Statement 1 is incorrect.

Wildlife Crime Control Bureau is a statutory multi-disciplinary body established by the Government of India under the Ministry of Environment and Forests, to combat organized wildlife crime in the country. It was established under the Wild Life Protection Act, 1972. Under Section 38 (Z) of the Wild Life (Protection) Act, 1972,

- it is mandated to collect and collate intelligence related to organized wildlife crime activities and to disseminate the same to State and other enforcement agencies for immediate action so as to apprehend the criminals;
- to establish a centralized wildlife crime data bank;
- co-ordinate actions by various agencies in connection with the enforcement of the provisions of the Act;
- assist foreign authorities and international organization concerned to facilitate co-ordination and universal action for wildlife crime control;
- capacity building of the wildlife crime enforcement agencies for scientific and professional investigation into wildlife crimes and assist State Governments to ensure success in prosecutions related to wildlife crimes; and
- advise the Government of India on issues relating to wildlife crimes having national and international

ramifications, relevant policy and laws.

- It also assists and advises the Customs authorities in inspection of the consignments of flora & fauna as per the provisions of Wild Life Protection Act, CITES and EXIM Policy governing such an item.

**21. Solution: (a)**

Statement 1 is incorrect.

Travel for LiFE: It is a sectoral program launched by the Ministry of Tourism in India in collaboration with the Ministry of Environment, Forest and Climate Change, the United Nations World Tourism Organisation (UNWTO), and the United Nations Environment Programme (UNEP) on September 27, 2023, World Tourism Day Aim of the initiative: The initiative aims to bring about behavioural changes in both tourists and tourism businesses, focusing on environmental protection and socio-cultural sustainability. The program also encourages tourism businesses to adopt sustainable practices and earn certification levels. Eight Themes of Travel for LiFE –

- Save Energy
- Save Water
- Say No to single-use plastic
- Reduce Waste
- Empower Local Businesses and Communities
- Respect Local Culture and Heritage
- Consume Local Foods
- Conserve Nature

**22. Solution: (d)**

- The second Global Amphibian Assessment, conducted by over 1,000 experts and analysing 8,011 species worldwide, has revealed that the elusive dancing frogs of the Western Ghats are one of the most threatened amphibian genera.
- This assessment points out that 41 per cent of amphibian species are on the brink of extinction globally, with climate change, habitat loss, disease, fire, invasive species, and over-exploitation posing significant threats to them.
- The dancing frog genus, *Micrixalus*, which is part of the endemic family *Micrixalidae*, is identified as the most threatened frog genus in India.
- Amphibians are currently the second most declining taxa globally, after corals, making their conservation a matter of great concern.

**23. Solution: (d)**

The Directorate of Revenue Intelligence (DRI) conducted a successful operation called "Kachchhap". This operation resulted in the recovery of live baby turtles, including species like the Indian Tent Turtle, Indian Flapshell Turtle, Crown River Turtle, Black Spotted/Pond Turtle, and Brown Roofed Turtle. This operation is part of the DRI's ongoing efforts to protect the environment and combat illegal wildlife trafficking.



**24. Solution: (b)**

Statement 2 is incorrect. Wildfires have been a natural part of the Arctic's boreal forest or snow forest and tundra (treeless regions) ecosystems. However, in recent years, their frequency and scale in the regions have increased, primarily due to global warming. More worryingly, these blazing wildfires are fueling the climate crisis. The Arctic has been warming roughly four times as fast as the world. While the global average temperature has increased by at least 1.1 degree Celsius above the pre-industrial levels, the Arctic has become on average around 3 degree warmer than it was in 1980. This fast paced warming has led to more frequent lightning in the Arctic, which has further increased the likelihood of wildfires — lightning-sparked fires have more than doubled in Alaska and the Northwest Territories since 1975, according to a 2017 study.

**25. Solution: (b)**

Only Statement 1 is correct.

**26. Solution: (d)**

Permafrost — any ground that stays frozen for at least two years straight. Scientists estimate that Arctic permafrost holds around 1,700 billion metric tons of carbon, including methane and CO<sub>2</sub>. That's roughly 51 times the amount of carbon the world released as fossil fuel emissions in 2019. Wildfires make permafrost more vulnerable to thawing as they destroy upper insulating layers of vegetation and soil. This can cause ancient organic materials such as dead animals and plants to decompose and release carbon into the atmosphere. In case a large-scale thawing of Arctic permafrost is triggered, it would be impossible to stop the release of carbon.

**27. d) None Solution: (a)**

Statement 1 is incorrect.

The International Coral Reef Initiative (ICRI), in collaboration with the Global Fund for Coral Reefs (GFCR) and the High-Level Climate Champions (HLCC), launched the Coral Reef Breakthrough. This initiative aims to safeguard at least 125,000 square kilometres of shallow-water tropical coral reefs by 2030 through investments of at least US\$12 billion. The Coral Reef Breakthrough will focus on four action points:

- Mitigating local drivers of loss, including land-based pollution, coastal development, and overfishing.
- Doubling the area of coral reefs under effective protection by aligning with global coastal protection targets.
- Accelerating restoration efforts to impact 30% of degraded reefs by 2030.
- Securing investments of at least USD 12 billion by 2030 from public and private sources to conserve and restore coral ecosystems.

**28. Solution: (d)**

Olive Ridley turtles are one of the smallest sea turtle species. They are named for the olive-green colour of their heart-shaped shells. They are found primarily in the tropical regions of the Pacific, Indian, and Atlantic oceans.

**Protection Status:**

- Wildlife Protection Act, 1972: Schedule 1
- IUCN Red List: Vulnerable
- CITES: Appendix I

**29. Solution: (a)**

Only Statement 3 is correct.

The Bureau of Indian Standards (BIS) has announced that Indian standards on biofuels will significantly support the objectives of the Global Biofuel Alliance (GBA). BIS has developed nine Indian standards on biofuels, including specifications for anhydrous ethanol, biodiesel, biogas, biodiesel-diesel fuel blends, hydrous ethanol, E85 fuel, E20 fuel, aviation turbine fuel containing synthesized hydrocarbons, and ethanol as a fuel for spark-ignition engine-powered vehicles. Additionally, BIS is working on a standard for paraffinic (green) diesel derived from 2G feedstock. The G20 leaders launched the GBA during the 18th G20 Summit in New Delhi, and it aims to facilitate the adoption of biofuels worldwide. India, the USA, and Brazil are major producers and consumers of biofuels, contributing significantly to the global ethanol market.

**30. Solution: (b)**

Statement 3 is incorrect. The Ecomark Scheme provides accreditation and labelling for household and consumer products that meet specific environmental criteria while maintaining quality standards as per Indian norms. Products accredited under the Ecomark Scheme will adhere to specific environmental criteria, ensuring minimal environmental impact. It will build consumer awareness of environmental issues and encourage eco-conscious choices. It will also motivate manufacturers to shift towards environmentally friendly production. The scheme seeks to ensure accurate labelling and prevent misleading information about products. The Central Pollution Control Board administers the Ecomark Scheme in partnership with Bureau of Indian Standards (BIS), which is the national body for standards and certification.

**31. Solution: (d)****About Dandeli Wildlife Sanctuary:**

- It lies within the Kali Tiger Reserve (KTR) (Uttara Kannada District of Karnataka) along with Anshi National Park.
- KTR is a UNESCO World Heritage Site and global biodiversity hotspot. The reserve derives its name from the Kali River, which flows through the region. The ecoregions found here, namely the North Western Ghats montane rainforests and North Western Ghats moist deciduous forests.

### 32. Solution: (a)

Only Statement 1 is correct.

- India launched its first national-level framework for climate services, known as the National Framework for Climate Services (NFCS), led by the India Meteorological Department (IMD).
- The NFCS aims to provide climate information and services to various sectors, including agriculture, energy, disaster management, health, and water, to help them make informed decisions and mitigate climate risks.
- The NFCS is based on the Global Framework for Climate Services (GFCS), which focuses on generating highquality climate data and information, with priority sectors including agriculture, energy, health, water, and disaster risk reduction.
- Countries like Switzerland, China, Germany, and the United Kingdom have already launched their NFCS, while several others are in the advanced stages of implementation.

### 33. Solution: (b)

Statement 1 is incorrect.

#### Benefits of wastes to energy plants:

- In terms of volume, usually waste-to-energy plants incinerate 80 to 90 percent of waste, thus helping large cities from choking due to unmanageable waste.
- Waste to energy generates clean, reliable energy from a renewable fuel source, thus reducing dependence on fossil fuels, the combustion of which is a major contributor to Greenhouse Gas (GHG) emissions.
- Sometimes, the residue ash is clean enough to be used for some purposes such as raw materials for use in manufacturing cinder blocks or for road construction.
- Some waste-to-energy plants convert salt water to potable fresh water as a by-product of cooling processes.
- Waste-to-energy plants cause less air pollution than coal plants.
- It is carbon-negative – processing waste into biofuel releases considerably less carbon and methane into the air than having waste decay away in landfills or the lake.

### 34. Solution: (a)

Statement 3 is incorrect. Critical minerals These are minerals that are essential for economic development and national security, and the lack of availability of these minerals or the concentration of extraction or processing in a few geographical locations could potentially lead to “supply chain vulnerabilities and even disruption of supplies”. This is true for minerals such as lithium, graphite, cobalt, titanium, and rare earth elements, which are essential for the

advancement of many sectors, including hightech electronics, telecommunications, transport, and defence. Australia refers to critical minerals as: “metals, non-metals and minerals that are considered vital for the economic well-being of the world’s major and emerging economies, yet whose supply may be at risk due to geological scarcity, geopolitical issues, trade policy or other factors”.

### 35. Solution: (a)

Option 1 and 2 is correct. Igneous Rocks: Igneous rock is formed by the solidification of magma and lava. This is also known as the primary rock. Ex. Granite and Basalt etc.

Sedimentary Rocks: Sedimentary rocks are the result of deposition of fragments of rocks by exogenous processes. This is also known as the secondary rocks. Ex: sandstone, limestone, shale etc.

Metamorphic Rocks: Metamorphic Rocks formed from already-existing rocks that are undergoing recrystallization. Tertiary rocks are another name for metamorphic rocks. Ex: phyllite, schist, gneiss, quartzite and marble etc.

### 36. Solution: (d)

The ongoing spell of extreme heat in many parts of the country has once again reopened discussions on the inclusion of heatwaves as one of the notified disasters under the Disaster Management (DM) Act, 2005. If the inclusion does happen, states will be allowed to use their disaster response funds to provide compensation and relief, and carry out a range of other activities for managing the fallout of a heatwave. Currently, states need to use their own funds for these activities. States have put the demand of including heatwaves as a notified disaster before the last three Finance Commissions. However, the Finance Commissions have not entirely been convinced. The 15th Finance Commission, whose recommendations are currently being applied, said the existing list of notified disasters “covers the needs of the states to a large extent” and did not find merit in the request to include heatwaves. The DM Act was enacted in the wake of the 1999 Odisha super-cyclone and the 2004 tsunami. It defines a disaster as a “catastrophe, mishap, calamity or grave occurrence” arising from “natural or man-made causes” that results in substantial loss of life, destruction of property, or damage to the environment. If such an event happens, then the provisions of the DM Act can be invoked. The provisions allow states to draw money from the two funds that have been set up under this law — the National Disaster Response Fund (NDRF) at the national level and the State Disaster Response Fund (SDRF) at the state level. The states first utilise the funds available in the SDRF, and only if the magnitude of the disaster is unmanageable with the SDRF, states seek the money from the NDRF. In the FY 2023-24, only two states drew money from the

NDRF. While the entire money of the NDRF comes from the central government, states contribute 25% of the money in the SDRF (10% in case of special category states), the rest comes from the Centre. The money in these funds cannot be used for any purpose other than response and management of notified disasters.

**37. Solution: (d)**

Currently, there are 12 categories of disasters which are notified under this Act. These are cyclones, drought, earthquake, fire, flood, tsunami, hailstorm, landslide, avalanche, cloudburst, pest attack, and frost and cold waves.

**38. Solution: (a)**

Only Statement 1 is correct. Daylight saving time (DST) is the practice of setting the clocks forward one hour from the standard time during the summer and back again in the autumn. This is done to make better use of natural daylight. India does not follow daylight saving time as countries near the Equator do not experience high variations in daytime hours between seasons.

**39. Solution: (b)**

Statement 2 and 3 is correct.

- The Ken-Betwa Link Project (KBLP) is a river interlinking project that aims to transfer surplus water from the Ken River in Madhya Pradesh (MP) to Betwa in Uttar Pradesh (UP). The project is the first under the National Perspective Plan for the interlinking of rivers.
- The KBLP aims to irrigate the drought-prone Bundelkhand region. The dam will be built within Panna Tiger Reserve and will generate 103 MW of hydroelectric power.

**40. Solution: (d)**

- Scientists have recently rediscovered the “Pontus plate,” a long-lost tectonic plate that disappeared about 20 million years ago.
- This plate was approximately a quarter the size of the Pacific Ocean and once existed beneath an ancient ocean known as the Pontus Ocean.
- The rediscovery of the Pontus plate was accidental, occurring during a study of rocks in Borneo. Researchers had originally been studying the Pacific plate when they came across rock fragments that didn’t fit with known plates’ magnetic properties.
- This plate formed at least 160 million years ago, possibly even earlier, and eventually disappeared as it was subducted beneath the Australian and Chinese plates.

**41. Solution: (a)**

Only Statement 2 is correct. Glacial lakes are formed due to glacier retreat and hold valuable geological information, including fossils and landmass formation. These lakes can exist for thousands of years, storing information about past environmental changes.

Teesta River is a tributary of the Brahmaputra which flows through India and Bangladesh. It originates in the Himalayas near Chunthang, Sikkim and flows to the south through West Bengal before entering Bangladesh.

**42. Solution: (a)**

Only Statement 1 is correct. Hurricanes, or tropical storms, form over warm ocean waters near the equator. When the warm, moist air from the ocean surface rises upward, a lower air pressure area is formed below. Air from surrounding areas with higher air pressure rushes into this low pressure area, eventually rising, after it also becomes warm and moist. As warm, moist air rises, it cools down, and the water in the air forms clouds and thunderstorms. This whole system of clouds and winds gains strength and momentum using the ocean’s heat, and the water that evaporates from its surface. Storm systems with wind speeds of 119 kmph and above are classified as hurricanes. Hurricanes are classified using the Saffir-Simpson Hurricane Wind Scale into five categories (Category 1 to Category 5) based on their sustained wind speeds. While Category 1 hurricanes bring winds of 119 to 153 kmph, Category 5 hurricanes, which are the strongest, have winds of 252 kmph or higher. Storms that reach Category 3 and higher are considered major hurricanes due to their potential to inflict significant damage.

**43. Solution: (b)**

Statement 2 is incorrect. There are some water currents in the oceans that, driven by winds and the Coriolis force, form loops. These are called gyres. The North Pacific Subtropical Gyre (NPSG) is one such, located just north of the equator in the Pacific Ocean. It consists of the Kuroshio, North Pacific, California, and North Equatorial currents and moves in a clockwise direction. These currents flow adjacent to 51 Pacific Rim countries. Any trash that enters one of these currents, from any of these countries, could become part of the gyre.

**44. Solution: (a)**

Only Statement 3 is correct. A heat dome is a weather phenomenon where a high-pressure system in the atmosphere traps warm air like a lid on a pot, for an extended period of time. As the warm air is not able to rise upward, the sky remains clear — clouds are formed under the opposite circumstances as the rising warm air cools down, and the water in it condenses out. The high-pressure system allows more sunlight to reach the earth, which results in more warming and drying of soil. This leads to less evaporation and reduces the likelihood of the formation of rain clouds. The longer the heat dome stays in one place, the warmer conditions can get with every passing day. While heat domes cause heatwaves, they can occur without heat domes as well. A heat dome’s formation is tied to the behaviour of the jet stream — an area of fast-moving air high in the atmosphere that usually helps move weather systems



along the Earth's surface. Typically, the jet stream has a wave-like pattern that keeps moving from north to south and then north again. When these waves get bigger and elongated, they move slowly and sometimes can become stationary. This is when a high-pressure system gets stuck in place, and leads to the occurrence of a heat dome.

**45. Solution: (b)**

Only Statement 2 is correct. Seafloor spreading occurs along mid-ocean ridges—large mountain ranges rising from the ocean floor. The MidAtlantic Ridge, for instance, separates the North American plate from the Eurasian plate, and the South American plate from the African plate. The East Pacific Rise is a mid-ocean ridge that runs through the eastern Pacific Ocean and separates the Pacific plate from the North American plate, the Cocos plate, the Nazca plate, and the Antarctic plate. The Southeast Indian Ridge marks where the southern Indo-Australian plate forms a divergent boundary with the Antarctic plate.

**46. Solution: (c)**

Statement 4 is incorrect. There have been two main contributors to the enhanced rainfall. One is the continuous incoming of moisture-laden strong westerly winds from the Arabian Sea. The other is the position of the monsoon trough — a semi-permanent, low-pressure area extending between Pakistan and the Bay of Bengal during the monsoon season — which usually oscillates between north and south within the season. Whenever it moves towards the south, as it has done in the present case, more rainfall can take place in central, eastern and peninsular India. When it shifts towards the north, the Himalayan foothills are likely to receive more rainfall but the rest of India sees a drop in rainfall. Apart from these two factors, other weather systems have also contributed to the widespread rainfall over all regions, except the extreme north India. **They are:**

- The persistence of an off-shore trough (a shallow trough of low pressure, which develops along India's coast during the monsoon) between south Gujarat and north Kerala for more than a week now.
- The intermittent development of a wind shear zone — where winds move with different velocities and directions — along latitudes 20 ° N between central and peninsular India.
- The development of a low-pressure system over the west-central Bay of Bengal, off the Odisha coast, on Monday. The system moved over Chhattisgarh and adjoining Vidarbha on Tuesday, and over southeast Madhya Pradesh on Wednesday.

**47. Solution: (b)**

Statement 1 is incorrect. Zealandia is an underwater continent located to the southeast of Australia. It was recognized as Earth's eighth continent in 2017.

Zealandia formed around 83 million years ago during the Late Cretaceous period and started as part of the supercontinent Gondwana before breaking away.

**48. Solution: (b)**

Option 1 and 2 is correct. Brahmaputra River has its source in southwest Tibet. The source of the Sutlej is west of the catchment area of Lake Rakshastal in Tibet, as springs in an ephemeral stream. Ravi river rises in the Bara Bhangal, District Kangra in Himachal Pradesh. Chenab river rises in the upper Himalayas in the Lahaul and Spiti district of Himachal Pradesh.

**49. Solution: (c)**

The 'nasbandi' campaign of mass forced sterilisation, championed by Sanjay Gandhi in 1976.

**50. Solution: (a)**

Statement 2 is incorrect. The Department of Administrative Reforms and Public Grievances (DARPG) (Ministry of Personnel, Public Grievances and Pensions) launched IGMS 2.0. Public Grievance portal and Automated Analysis in Tree Dashboard portal

What is Intelligent Grievance Monitoring System (IGMS) 2.0? IGMS is an artificial intelligence (AI) driven Grievance Monitoring System. It aims to enhance the efficiency of the public grievance redressal process.

**About CPGRAMS:**

- CPGRAMS is an online platform available 24/7 for citizens to lodge grievances related to service delivery. It connects all Ministries/Departments of the Government of India and States and offers role-based access. Citizens can track grievance status using a unique registration ID and use the appeal facility if not satisfied with the resolution by the Grievance Officer.
- Close to 20 lakh grievances are received annually on the CPGRAMS portal.
- CPGRAMS is now available in 22 scheduled languages.
- Special Campaign 3.0: The campaign has made a significant impact, clearing office space and promoting the eOffice work culture.

**51. Solution: (b)**

Statement 2 is incorrect.

- Argentina, as part of the "Lithium Triangle" along with Chile and Bolivia, is a significant producer of lithium, holding the world's third-largest lithium reserve.
- KABIL is a joint venture, involving NALCO, MECL, and HCL, and is focused on identifying and acquiring strategic minerals overseas for India's use. It is also exploring opportunities for lithium partnerships and acquisitions in other Latin American nations like Chile and Brazil, as well as in Australia for lithium and cobalt exploration.

- India joined the Mineral Security Partnership (MSP), which aims to strengthen critical mineral supply chains.

### 52. Solution: (b)

Statement 2 is incorrect.

The Telecom Regulatory Authority of India (TRAI) was established with effect from 20th February 1997 by an Act of Parliament, called the Telecom Regulatory Authority of India Act, 1997, to regulate telecom services, including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government. TRAI's mission is to create and nurture conditions for growth of telecommunications in the country in a manner and at a pace which will enable India to play a leading role in emerging global information society. One of the main objectives of TRAI is to provide a fair and transparent policy environment which promotes a level playing field and facilitates fair competition. The TRAI Act was amended by an ordinance, effective from 24 January 2000, establishing a Telecommunications Dispute Settlement and Appellate Tribunal (TDSAT) to take over the adjudicatory and disputes functions from TRAI. TDSAT was set up to adjudicate any dispute between a licensor and a licensee, between two or more service providers, between a service provider and a group of consumers, and to hear and dispose of appeals against any direction, decision or order of TRAI. The Telecom Disputes Settlement and Appellate Tribunal (TDSAT) in India has ruled that Over the Top (OTT) streaming platforms, like Disney+Hotstar, do not fall under the jurisdiction of the Telecom Regulatory Authority of India (TRAI). Instead, they are governed by the Information Technology Rules of 2021, as notified by the IT Ministry.

### 53. Solution: (b)

Statement 1 and 4 is incorrect.

The labour force participation rate (LPR) is a measure of the proportion of a country's working-age population that is actively engaged in the labour market. An increasing trend in LFPR for persons aged 15 years and above was observed

- In rural areas, LFPR increased from 50.7% in 2017-18 to 60.8% in 2022-23.
- In urban areas, LFPR increased from 47.6% to 50.4% over the same period.
- LFPR for males in India increased from 75.8% in 2017-18 to 78.5% in 2022-23.
- For females, LFPR increased from 23.3% to 37.0% during this time.

### 54. Solution: (b)

Statement 3 is incorrect.

The GOBARdhan initiative, a multi-ministerial effort, aims to transform organic waste, including cattle dung, agricultural residues, and biomass, into valuable

resources like biogas, CBG, and organic manure. This initiative supports high-value Biogas/CBG production and promotes the use of bio-slurry to improve soil health, carbon content, and water retention. The Market Development Assistance (MDA) scheme, launched by the Department of Fertilizers aims to promote the production and adoption of organic fertilizers generated from GOBARdhan plants. It seeks to encourage sustainable/organic agricultural practices, reduce reliance on chemical fertilizers, and boost the use of bio-slurry in agriculture.

### 55. Solution: (b)

Statement 2 is incorrect. PM SHRI scheme The scheme, approved in 2022, seeks to develop 14,500 schools to "showcase" the National Education Policy (NEP), 2020, and be "exemplars" for other schools in their region. The scheme is for existing elementary, secondary, and senior secondary schools run by the central government and state and local governments around the country. The PM SHRI dashboard online currently lists 10,077 schools, of which 839 are Kendriya Vidyalayas and 599 Navodaya Vidyalayas, both run by the Centre. The remaining 8,639 schools are run by state or local governments. UP has the most PM SHRI schools (1,865) followed by Maharashtra (910) and Andhra Pradesh (900). PM SHRI schools are selected through the "challenge mode" — schools that meet certain minimum benchmarks (including a pucca building in good condition, barrier-free access ramps, at least one toilet each for boys and girls) can apply online. They are evaluated on a set of parameters that include infrastructure, teaching staff, and learning outcomes. Schools in urban areas must score at least 70%; those in rural areas 60% to be selected. States are supposed to send a list of recommended schools to the Ministry, and an expert committee headed by the School Education and Literacy Secretary draws up the final list. Up to two schools — an elementary school and a secondary/ senior secondary school can be selected per block/ urban local body. The PM SHRI scheme is to be implemented at the state/ UT level through the existing administrative structure available for Samagra Shiksha, which the government describes as "an overarching program for the school education sector...from pre-school to Class 12..., prepared with the broader goal of improving school effectiveness measured in terms of equal opportunities for schooling and equitable learning outcomes".

### 56. Solution: (c)

Samagra Shiksha, which was proposed by the Union Budget of 2018-19, subsumed the erstwhile Sarva Shiksha Abhiyan (SSA), Rashtriya Madhyamik Shiksha Abhiyan (RMSA), and Teacher Education (TE) schemes.

The scheme is funded in a 60:40 ratio by the Centre and states, barring the 11 Northeastern and Himalayan states, which have to bear only 10% of the cost.



**57. Solution: (c)**

Starting July 1, three new criminal laws came into effect, reshaping the legal landscape in India by replacing the British-era criminal laws. On December 25, 2023, President Droupadi Murmu gave assent to “The Bharatiya Nyaya Sanhita 2023”, “The Bharatiya Nagarik Suraksha Sanhita 2023”, and “The Bharatiya Sakshya Adhiniyam, 2023”. These new criminal laws replaced the earlier criminal laws — the Indian Penal Code (IPC), Code of Criminal Procedure (CrPC), and the Indian Evidence Act. Source

**58. Solution: (b)**

Statement 1 is incorrect. The Department of Animal Husbandry and Dairying, Government of India, introduced the ‘A-HELP’ (Accredited Agent for Health and Extension of Livestock Production) program. This program aims to empower women by engaging them as Accredited Agents who play a vital role in disease control, animal tagging, and livestock insurance. The ‘A-HELP’ initiative is being implemented in various Indian states and union territories, including Bihar, Gujarat, Jammu and Kashmir, Karnataka, Madhya Pradesh, Uttarakhand, and Jharkhand, through an MoU between the Department of Animal Husbandry and Dairying and the National Rural Livelihoods Mission. The new scheme would enhance access to veterinary services at the farmer's doorstep and empower Pashu Sakhis.

**59. Solution: (a)**

Statement 3 is incorrect.

**Features of Lunar Soil:**

- It is not dusty but rather lumpy, indicating that something is binding the soil together.
- Lunar Soil is a thick layer of regolith, fragmental and unconsolidated rock material, that covers the entire lunar surface.
- Lunar soil contains no organic matter.

**60. Solution: (c)**

GRBs are bursts of highly energetic gamma rays, which last from less than a second to several minutes. They are known to occur in distant realms of the universe, and “can erupt with a quintillion (a 10 followed by 18 zeros) times the luminosity of the Sun”. There are two types of GRBs, short GRBs and long GRBs. Short GRBs are a result of the collision of either two neutron stars or a neutron star and a black hole, resulting in a black hole. They last for less than two seconds. Sometimes, short GRBs are followed by kilonovas — blasts of electromagnetic radiation (or light) that are produced by the radioactive decay of chemical elements. The decay can lead to the generation of heavier elements like gold, silver, and platinum. Long GRBs are produced due to the explosive deaths of massive stars. These can last for two seconds or longer. Scientists observe GRBs as they carry information pertaining to violent events such as the end of life of massive stars, the formation of black holes in distant

galaxies, and how they shape the universe.

**61. Solution: (b)**

Statement 1 is incorrect. A satellite jointly developed by China and France was launched into orbit from the Xichang Satellite Launch Center in Sichuan province on June 22. The primary objective of SVOM is to look for GRBs across the universe. Once found, the satellite will measure and study their electromagnetic radiation properties. It will also use the bursts to unlock mysteries regarding the evolution of the universe, and gravitational waves (scientists have observed that both gravitational waves and GRBs originate from the collision of neutron stars). The SVOM satellite is capable of searching for kilonovas as well. “Such a detection would be of great significance to the study of stellar evolution, and to answering very interesting scientific questions such as where heavy elements like gold and silver come from in the universe.

**62. Solution: (c)**

The Kimberley Process is an international certification scheme that regulates trade in rough diamonds. It aims to prevent the flow of conflict diamonds while helping to protect legitimate trade in rough diamonds. Rough diamonds are uncut, unpolished, and unprocessed diamonds in their natural form as they are mined from the earth or extracted from other sources like alluvial deposits.

**63. Solution: (b)**

Statement 3 is incorrect. Cookies are a vital component of the digital world, enhancing online experiences by remembering login information, preferences, and interactions on websites. Cookies come in various types, including session cookies (temporary), persistent cookies (long-lasting), secure cookies (encrypted), and third-party cookies (from domains other than the visited site). Benefits: They are like keys to a secure club, granting seamless access to websites. Cookies enable personalization, as seen on platforms like Amazon, which use them to provide tailored product recommendations and shopping cart persistence. India's Digital Personal Data Protection Act 2023 mandates explicit user consent for data collection via cookies.

**64. Solution: (a)**

Statement 3 is incorrect. Hemochromatosis is a rare genetic disorder characterized by iron overload, which can lead to severe dysfunction in various organs. There are two main types of hemochromatosis: hereditary hemochromatosis and secondary hemochromatosis.

- Hereditary Hemochromatosis: This genetic disorder results from a mutation in the HFE gene, causing individuals to absorb excessive iron from their diet.
  - Unlike the body's natural ability to regulate iron intake, people with hereditary hemochromatosis accumulate iron gradually in their system, which can lead to health problems

over time. o The excess iron can affect vital organs such as the liver, heart, and pancreas, potentially causing cirrhosis, heart failure, diabetes, and arthritis.

- Secondary Hemochromatosis: This type is typically caused by external factors like frequent blood transfusions, excessive iron supplementation, or certain medical conditions. Iron accumulation in secondary hemochromatosis can be more rapid and lead to organ dysfunction.

#### 65. Solution: (b)

Statement 1 is incorrect. The Indian National Space Promotion and Authorization Centre (IN-SPACe) has unveiled a decadal vision and strategy for the Indian space economy, aiming to significantly boost its growth. What is IN-SPACE? IN-SPACE is India's single-window autonomous agency under the Department of Space, responsible for promoting and authorizing various space activities for non-governmental entities (NGEs). It was launched in 2020 to provide a level playing field for private companies to use Indian space infrastructure. It acts as a single-point interface between Indian Space Research Organisation (ISRO), and everyone who wants to participate in space-related activities or use India's space resources.

#### 66. Solution: (d)

A cognitive test checks for problems with cognition, which includes brain functions such as thinking, learning, remembering, and using judgment and language. Problems with cognition are described as cognitive impairment. Cognitive testing is a structured and validated process that seeks to identify deficits, the reasons for their occurrence, and the spheres of the subject's brain they affect. On the basis of the test results, a diagnosis is reached on whether the subject has cognitive impairment, dementia, or pseudo dementia, and interventions — including behaviour therapies and cognitive therapies — are decided. The test is frequently given by doctors in order to differentiate among dementia and pseudo dementia, and to suggest interventions for cognitive rehabilitation. The test is basically like an exam in which a psychologist checks functions such as memory, retention, language functioning, calculating ability, and special organising ability, in order to evaluate the functioning of individual parts of the brain that are responsible for each of these mental functions.

#### 67. Solution: (c)

The electron is a subatomic particle with a negative elementary electric charge. Electrons' rapid movement made them challenging to study directly. Scientists had to rely on averaging their properties. Electrons move so quickly that capturing them requires extremely short pulses of light such as attosecond. Electron dynamics occur on the attosecond timescale, which is a billionth of a billionth of a second ( $1 \times 10^{-18}$  of a second), much

faster than femtoseconds (a millionth of a billionth of a second) associated with atomic movements.

#### 68. Solution: (c)

**What is CHPV infection and how is it transmitted?**

- CHPV is a virus of the Rhabdoviridae family, which also includes other members such as the lyssavirus that causes rabies.
- Several species of sandflies like Phlebotomine sandflies and Phlebotomus papatasi, and some mosquito species such as Aedes aegypti (which is also the vector for dengue) are considered vectors of CHPV.
- The virus resides in the salivary gland of these insects, and can be transmitted to humans or other vertebrates like domestic animals through bites.
- The infection caused by the virus can then reach the central nervous system which can lead to encephalitis — inflammation of the active tissues of the brain. What are the symptoms of CHPV infection?
- The CHPV infection presents initially with flu-like symptoms such as acute onset of fever, body ache, and headache. It may then progress to altered sensorium or seizures and encephalitis.
- Retrospective studies from India have also reported other symptoms such as respiratory distress, bleeding tendencies, or anaemia.
- The infection often progresses rapidly after encephalitis, which may then lead to mortality within 24-48 hours of hospitalisation, according to studies.
- Susceptibility has largely remained limited to children below 15 years.

#### 69. Solution: (a)

Only Statement 1 is correct. Quantum technologies try to make use of the fact that matter behaves in a very unexpected and counterintuitive manner at its smallest scale. Sub-atomic particles such as electrons seemingly exist at multiple locations at the same time, and can influence the behaviour of a like-particle, with which they have had a prior interaction, over infinitely large distances. These strange properties have been experimentally verified hundreds of times. However, it is only in recent years that scientists have acquired capabilities to put them to some beneficial uses. Some of these properties, like the ability to exist in multiple states at the same time — a phenomenon called superposition — can be used to perform real-life tasks that conventional technologies are unable to achieve.

#### 70. Solution: (a)

Only Statement 1 is correct. Depleted uranium is a byproduct of the process of creating enriched uranium, which is used in nuclear reactors and nuclear weapons. In comparison to enriched uranium, depleted uranium is much less radioactive and is incapable of generating a nuclear reaction. However, due to its high density —



it's more dense than lead — depleted uranium is widely used in weapons as it can easily penetrate armour plating. Even though depleted uranium munitions aren't considered nuclear weapons, experts suggest that such weapons must be used with caution because they emit low levels of radiation and can cause severe diseases. Ingesting or inhaling quantities of uranium — even depleted uranium — is dangerous: it depresses renal function and raises the risk of developing a range of cancers. According to the International Coalition to Ban Uranium Weapons, depleted uranium munitions which miss their target can poison groundwater and soil.

**71. Solution: (a)**

Statement 3 is incorrect. Five Eyes Alliance: The Five Eyes Alliance refers to an intelligence-sharing partnership among five countries: the United States, the United Kingdom, Australia, Canada, and New Zealand. These nations collaborate closely on intelligence matters, sharing information to protect their shared national interests. Origins of the Alliance: The alliance traces its origins back to World War II when the UK and the US decided to share intelligence after successfully breaking German and Japanese codes.

**72. Solution: (b)**

Options 1, 4 and 5 are correct. "Shanghai Five", formed in 1996 and consisting of China, Russia, Kazakhstan, Kyrgyzstan and Tajikistan. SCO was established on June 15, 2001, in Shanghai as an international organisation, and also included Uzbekistan as a sixth member. Before the inclusion of Belarus, it had nine members: India, Iran, Kazakhstan, China, Kyrgyzstan, Pakistan, Russia, Tajikistan, and Uzbekistan. Afghanistan and Mongolia hold Observer Status.

**73. Solution: (b)**

Statement 2 is incorrect. Last year, BRICS — an acronym that was originally used to refer to Brazil, Russia, India, China, and South Africa — decided to expand its membership, inviting Egypt, Ethiopia, Iran, Saudi Arabia and the United Arab Emirates to join the bloc. The bloc has members from all over the world, but none from Southeast Asia yet. Apart from BRICS, Thailand has also applied to join the Paris-based Organization for Economic Cooperation and Development (OECD), which has 38 mostly Western members. Malaysia and Thailand are not the only countries in Southeast Asia interested in joining BRICS. Ahead of the BRICS summit in South Africa last year, there had been speculation that Indonesia — the only G20 country in Southeast Asia that hopes to complete the accession process with the OECD within three years — could become a BRICS member.

**74. Solution: (b)**

Statement 1 is incorrect. India is neither a signatory to the UN Refugee Convention (which outlines the

rights of asylum seekers and refugees, alongside the obligations of host states) nor to its 1967 Protocol. Nor does our country have a domestic asylum framework.

**75. Solution: (c)**

Infrastructure projects are enhancing Indo-Bangla connectivity and trade facilitation. The Akhaura-Agartala crossborder rail link, connecting India's northeast to Bangladesh, and the Khulna-Mongla port rail line are landmark initiatives improving regional transport networks.

**76. Solution: (c)**

The Indian government said it would soon sign and ratify the High Seas Treaty, a new international legal architecture for maintaining the ecological health of the oceans. The treaty, negotiated last year, is meant for reducing pollution, and for conservation and sustainable use of biodiversity and other marine resources in ocean waters. High seas are areas outside the national jurisdiction of any country because of which the treaty is also known as the agreement on Biodiversity Beyond National Jurisdictions (BBNJ). It is formally called the Agreement on Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction. India, like most other nations, was a party to the nearly 20 years of negotiation that resulted in the finalisation of the treaty last year. The High Seas Treaty has often been compared with the 2015 Paris Agreement on climate change in its significance and potential impact. The treaty deals only with oceans that are outside the national jurisdiction of any country.

**77. Solution: (b)**

Statement 1 is incorrect. Typically, national jurisdictions extend up to 200 nautical miles (370 km) from the coastline, an area that is called exclusive economic zones or EEZs. Areas outside of EEZs of every country are known as high seas or international waters. They constitute about 64%, roughly two-thirds, of the total ocean area and are considered global commons. They belong to no one and everyone enjoys equal rights for navigation, overflight, economic activities, scientific research, or laying of infrastructure like undersea cables. But because these belong to no one, high seas are also no one's responsibility. As a result, many of these areas suffer from overexploitation of resources, biodiversity loss, pollution, including dumping of plastics, ocean acidification, and many other problems. According to UN estimates, about 17 million tonnes of plastics were dumped in the oceans in 2021, and this was only expected to increase in the coming years.

**78. Solution: (b)**

Statement 3 is incorrect. The 1982 UN Convention on Laws of the Seas, or UNCLOS, is a comprehensive international law that lays down the broad frameworks for legitimate behaviour on, and use of, seas and oceans everywhere. It defines the rights and duties



of nations regarding activities in the oceans, and also addresses issues such as sovereignty, passage rights, and rights of exclusive economic usages. Demarcations of territorial waters, and EEZs are a result of UNCLOS. UNCLOS also sets the general principles for equitable access and usage of ocean resources, and protection and conservation of biodiversity and marine ecology. But it doesn't specify how these objectives have to be achieved. This is where the High Seas Treaty comes in. Once it comes into force, this treaty would serve as one of the implementing agreements under the UNCLOS.

#### 79. Solution: (d)

Prime Minister Narendra Modi was awarded Russia's highest civilian honour, the Order of Saint Andrew the Apostle, during his visit to the country. The award for the PM was announced in 2019, for "exceptional services in promoting special & privileged strategic partnership between Russia and India and friendly relations between the Russian and Indian peoples." The award is given to prominent government and public figures, military leaders, and outstanding representatives of science, culture, art, and various sectors of the economy for exceptional services to Russia. It can also be awarded to heads of foreign states for outstanding services to the Russian Federation.

#### 80. Solution: (c)

- The High Seas Treaty seeks to achieve three substantive objectives: conservation and protection of marine ecology; fair and equitable sharing of benefits from marine genetic resources; and establishment of the practice of mandatory environmental impact assessments for any activity that is potentially polluting or damaging to the marine ecosystem.
- There is a fourth objective as well, that of capacity building and transfer of marine technologies to developing countries. This will help them make full use of the benefits of the oceans while also contributing towards their conservation.
- Protection and conservation of marine ecology is supposed to be achieved through demarcation of Marine Protected Areas (MPAs), much like the national parks or wildlife reserves. Activities in MPAs would be regulated, and conservation efforts also taken up. A few potential areas that may get recognised as MPAs have already been identified, and many more are expected to be added in due course.

#### 81. Solution: (b)

Statement 2 is incorrect. Ratification is the process by which a country agrees to be legally bound to the provisions of an international law. This is separate from a mere signing on to an international law. Signing indicates that a country agrees with the provisions of the international law concerned, and is willing to abide by it. But till it ratifies it, the process for which varies from country to country, it is not legally bound

to follow that law. In countries that have legislative bodies like a parliament, ratification typically requires the consent of the legislature. In other countries, it might just need an executive approval or accession. It is possible for a country to sign on to but not ratify a treaty. In that case, it is not considered a party to the treaty. The United States, for example, signed the Kyoto Protocol, the predecessor to the Paris Agreement, but it did not ratify it because its Senate, the upper house of the legislature, did not give its approval.

#### 82. Solution: (d)

As Hamas raided southern Israel on October 7 last year, the Israel Defence Forces (IDF) activated the "Hannibal Directive", a purported operational doctrine of using maximum force to ensure no soldiers are captured, even if it means sacrificing military and civilian lives, a media investigation has found. The Hannibal Directive, also known as Hannibal Procedure and Hannibal Protocol, was used from the first hours of the attack in at least three military facilities that Hamas infiltrated. The expression refers to a purported IDF operational policy that aims to preempt politically painful prisoner swaps by immediately eliminating everyone in the vicinity of a captive Israeli soldier, even if it poses a risk to the soldier himself.

#### 83. Solution: (b)

Statement 3 is incorrect. The United States Secret Service was founded in 1865, and is one of the oldest federal investigative law enforcement agencies in the world. Its initial mandate was to combat the counterfeiting of US currency, but this changed after the assassination of then US President William McKinley in 1901. In 1902, the Secret Service assumed full-time responsibility for the safety of the US President. The Secret Service works under the Department of Homeland Security. The Secret Service is mandated to protect the Vice President, the President-elect, their immediate families, former Presidents and their spouses (except when the spouse remarries) and children of former Presidents until age 16. Former Presidents, such as Trump, are entitled to lifelong protection unless they refuse it. The service also protects "major presidential and vice-presidential candidates and their spouses within 120 days of a general presidential election".

#### 84. Solution: (a)

Statement 1 is incorrect. The IPMDA was announced by the Quad grouping, comprising India, Australia, Japan and U.S., at the Tokyo summit in early 2022 to track "dark shipping" and build a "faster, wider, and more accurate maritime picture of near-real-time activities in partners' waters", integrating three critical regions in the Indo-Pacific — the Pacific Islands, Southeast Asia, and the IOR. This initiative [IPMDA] seeks to establish a comprehensive system for monitoring and securing maritime activities in the Indo-Pacific, ensuring the safety of critical sea lines of

communication, and promoting cooperation among like-minded nations in the region.

**85. Solution: (a)**

Only Statement 1 is correct. Foreigners' Tribunals are quasi-judicial bodies established as per the Foreigners' Tribunal Order, 1964 and the Foreigners' Act, 1946. Who can setup these tribunals? The Ministry of Home Affairs (MHA) has amended the Foreigners (Tribunals) Order, 1964, and has empowered district magistrates in all States and Union Territories to set up tribunals (quasi-judicial bodies) to decide whether a person staying illegally in India is a foreigner or not. Earlier, the powers to constitute tribunals were vested only with the Centre. Who can approach? The amended order (Foreigners (Tribunal) Order, 2019) also empowers individuals to approach the Tribunals. Earlier, only the State administration could move the Tribunal against a suspect.

**86. Solution: (a)**

Statement 1 is incorrect.

- The United Nations Convention against Transnational Organized Crime (UNTOC) is a global and legally binding instrument adopted by the UN General Assembly in 2000 and enforced in 2003.
- It is the first comprehensive treaty aimed at combatting transnational organized crime including human trafficking, migrant smuggling, and illicit firearms trafficking.
- Currently, there are 192 parties to the Convention (as of 20 October 2023), including India (who joined it in 2002 and ratified it in 2011). Central Bureau of Investigation acts as the national Nodal Authority from India. India also enacted the Criminal Law Amendment Act in 2013, which specifically defines human trafficking.

**87. Solution: (a)**

Only Statement 2 is correct. India has "recognised" the Tibet Autonomous Region (TAR) as part of the territory of the People's Republic of China since 1954. Since 2010, however, given China's refusal to respect India's territorial integrity, its renaming of places in Arunachal Pradesh, and its issuance of stapled visas to residents of Jammu and Kashmir, India stopped articulating a 'One China' policy or making references to Tibet in official statements. It contends that the Dalai Lama is a revered spiritual leader, despite China's protests that he is a "separatist" or "splittist". India also does not officially recognise the Tibetan Government in Exile or Parliament in Exile as more than organising mechanisms for the Tibetan people based here and abroad.

**88. Solution: (a)**

Only Statement 2 is correct. The Financial Action Task force (FATF) adopted a mutual evaluation report that examines India's effectiveness in anti-money laundering, and countering terrorist financing, on June

28. The session was held from June 26 to June 28, 2024 at Singapore placed India in the 'regular follow-up' category, a distinction shared by only four other G20 countries. Headquartered in Paris, the FATF leads global actions for tackling with money laundering, and terrorist financing. India's mutual evaluation of FATF guidelines, which checks a country's efficacy in framing laws and policy and its implementation to keep financial crimes in check, was last done in 2010.

**89. Solution: (b)**

Statement 2 is incorrect. The Central Council of Ministers is led by the Prime Minister and plays a vital role in government policy-making. Given the parliamentary system of government in India, it is effectively the real executive authority. While the President of India is the head of the Executive, they must act on the aid and advice of the COM as mandated by the Indian Constitution. According to Article 74, "There shall be a Council of Ministers with the Prime Minister at the head to aid and advise the President who shall, in the exercise of his functions, act in accordance with such advice..." Article 75 further states that the President appoints the Prime Minister. Based on the PM's recommendation, the President also appoints other ministers. The article mandates that the size of this council should not exceed 15% of the strength of the Lok Sabha, or the House of the people. Article 88 empowers the ministers to speak or otherwise participate in proceedings in both the Lok Sabha and Rajya Sabha, as well as any joint session of both houses or any Parliamentary committee they may be a part of. However, it does not guarantee them the right to vote.

**90. Solution: (c)**

The Prime Minister is the head of the Central Council of Ministers in an executive capacity. The position he holds is often described as "first among equals", wherein the PM has a unique role and is considered the primary leader of the COM, but is nevertheless equal to his ministers. Notably, Article 75 states: "The Council of Ministers shall be collectively responsible to the House of the People." Additionally, the PM is responsible for decision-making on all important policy issues and other portfolios not allocated to any other minister.

**91. Solution: (c)**

Option 5 is incorrect. Prime Minister Narendra Modi chairs the Ministry of Personnel, Public Grievances and Pensions — a position he held in the outgoing council as well. He also supervises the Department of Atomic Energy and the Department of Space. Additionally, he heads the NITI Aayog and the Appointments Committee of the Cabinet. The defence minister serves as President of the Institute for Defence Studies and Analyses, and as Chancellor of the Defence Institute of Advanced Technology and of the National Defence University.



## 92. Solution: (d)

The J&K Enemy Agents Ordinance was first issued in 1917 by the then Dogra Maharaja of J&K. It is referred to as an 'ordinance' since laws made during the Dogra rule were called ordinances. According to the ordinance, "whosoever is an enemy agent or, with an intent to aid the enemy, conspires with any other person to any act which is designed or likely to give assistance to the enemy or to impede the military or air operations of Indian forces or to endanger life or is guilty of incendiarism shall be punishable with death or rigorous imprisonment for life or with rigorous imprisonment for a term which may extend to 10 years and shall also be liable to fine". After Partition in 1947, the ordinance was incorporated as a law in the erstwhile state and was also amended. In 2019, when Article 370 of the Constitution was repealed, J&K's legal framework also underwent several changes. The Jammu and Kashmir Reorganisation Act was passed, which listed out state laws that were to continue while several others were repealed and replaced with Indian laws.

## 93. Solution: (d)

Under Article 105(2) of the Constitution, "no Member of Parliament shall be liable to any proceedings in any court in respect of anything said...in Parliament or any committee thereof". However, MPs don't enjoy the freedom to say whatever they want inside the House. The speech of MPs is subject to the discipline of the Rules of Parliament, "good sense" of its Members, and the control of proceedings by the Speaker. These checks ensure that MPs cannot use "defamatory or indecent or undignified or unparliamentary words" inside the House. Rule 380 ("Expunction") of the Rules of Procedure and Conduct of Business in Lok Sabha says: "If the Speaker is of opinion that words have been used in debate which are defamatory or indecent or unparliamentary or undignified, the Speaker may, while exercising discretion order that such words be expunged from the proceedings of the House." Rule 381 says: "The portion of the proceedings of the House so expunged shall be marked by asterisks and an explanatory footnote shall be inserted in the proceedings as follows: 'Expunged as ordered by the Chair'."

## 94. Solution: (b)

Option 1 and 2 is correct. (i) Union Public Service Commission (UPSC), which conducts the Civil Services Examination, Combined Defence Services Examinations, Combined Medical Services Examination, Engineering Services Examination, etc.; (ii) Staff Selection Commission (SSC), which recruits for Group C (non-technical) and Group B (non-gazetted) jobs in the central government; (iii) the Railway Recruitment Boards (RRBs), which recruit Groups C and D staff in the Indian Railways; (iv) Institute of Banking Personnel Selection (IBPS), which hires at all levels for nationalised banks and

regional rural banks (RRBs); and (v) National Testing Agency (NTA), which conducts the JEE (Main), NEET-UG, UGC-NET, the Common University Entrance Test (CUET), etc.

## 95. Solution: (b)

### Constitutional Provisions related to education:

- The 42nd Amendment to the Constitution in 1976 moved education from the State to the Concurrent List.
- Article 21A: It provides free and compulsory education of all children in the age group of six to fourteen years as a fundamental Right.
- Article 39(f): It provides that children are given opportunities and facilities to develop in a healthy manner and in conditions of freedom and dignity
- Article 45: The State shall endeavour to provide, within a period of ten years from the commencement of this Constitution, for free and compulsory education for all children until they complete the age of fourteen years.
- ARTICLE 46: The State shall promote with special care the educational and economic interests of the weaker sections of the people.

## 96. Solution: (b)

Statement 1 is incorrect. In 2019, when Article 370 of the Constitution was repealed, J&K's legal framework also underwent several changes. While the security laws such as Enemy Agents Ordinance and Public Safety Act remained; the Ranbir Penal Code was replaced with the Indian Penal Code. Other laws including The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or Forest Act, and The Scheduled Caste and the Scheduled Tribes (Prevention of Atrocities) Act, 1989 were extended to J&K as well.

## 97. Solution: (a)

Statement 2 is incorrect. The date of election of the Speaker is decided by the President who needs to go by the advice of the Union cabinet which, in fact, chooses the date. In the case of the Speaker, there is no constitutional requirement for him to wait for the advice of the Union cabinet in fixing the date of election of the Deputy Speaker. The Deputy Speaker has the same power as the Speaker when he presides over a sitting of the House. Similarly no appeal lies to the Speaker against a ruling given by the Deputy Speaker. So the Speaker is powerless in the matter of revising or overruling a decision of the Deputy Speaker. Under Article 95(1) of the Constitution, the Deputy Speaker gets all the powers of the Speaker when the office of the Speaker is vacant, so the Deputy Speaker can also determine the petitions relating to disqualification under the 10th Schedule of the Constitution. Although the Deputy Speaker gets to exercise these powers only in the absence of the Speaker his decisions are final and binding when he gives a ruling.



**98. Solution: (c)**

Article 103, which says that if any question arises as to whether any sitting Member has become subject to any of the disqualifications mentioned under Article 102(1), the question shall be referred to the President whose decision shall be final. Before giving any decision on any such question, the President shall obtain the opinion of the Election Commission and shall act according to such opinion

**99. Solution: (c)**

The trial under the Enemy Agents Ordinance is conducted by a special judge who is appointed by the “government in consultation with the High Court”. Under the ordinance, the accused cannot engage a lawyer to defend herself unless permitted by the court. There is no provision for appeal against the verdict, and the decision of the special judge can only be reviewed “by a person chosen by the Government from the judges of the High Court and the decision of that person shall be final”. The ordinance also bars any disclosure or publication of the case tried under it. “Any person who, without the previous authorisation of the

Government, discloses or publishes any information with respect to any proceedings or with respects to any person proceeded against under this Ordinance, shall be punishable with imprisonment for a term which may extend to two years, or with fine, or with both,” according to the ordinance.

**100. Solution: (b)**

Only Statement 1 is correct. The Madras High Court had stayed the summons issued by the Directorate of Enforcement (ED) to the Collectors of Ariyalur, Karur, Thanjavur, Tiruchi and Vellore for producing details regarding all sand quarry sites in their districts. Unlike laws governing other agencies, particularly the CBI, the PMLA allows the ED to take cognizance of any offence under its wide-ranging schedule across the country, with or without the consent of state governments. It has, therefore, been able to register money laundering cases against politicians or activists based on FIRs filed by state police forces — something the CBI is unable to do unless requested by the state government, or ordered by a court or the Central Vigilance Commission (CVC).



**TRANSFORM IAS**  
Transforming Lives with Education