

# IQRA IAS

# CHAYAN

## GS MOCK TEST 2 SOLUTION

**Q1. - C**

Explanation: Diastrophism, large-scale deformation of Earth's crust by natural processes, which leads to the formation of continents and ocean basins, mountain systems, plateaus, rift valleys, and other features by mechanisms such as lithospheric plate movement (that is, plate tectonics), volcanic loading, or folding. All processes that move, elevate or build up portions of the earth's crust come under diastrophism. They include:-

1. Orogenic processes involving severe folding and affecting long and narrow belts of earth's crust resulting in mountain formation. Hence Statement 1 is correct.
2. Epeirogenic processes involving upliftment and warping of large parts of earth's crust. Due to epeirogeny there may be simple deformation. It is a continental building process. Hence Statement 2 is correct
3. Earthquakes involving local relatively minor movements.
4. Plate tectonics involving horizontal movements of crustal plates. Hence Statement 3 is correct

Through the processes of orogeny, epeirogeny, earthquakes and plate tectonics, there can be faulting and fracturing of the crust. All these processes cause pressure, volume and temperature (PVT) changes which in turn induce metamorphism of rocks.

**Q2. B**

1 and 2 are correct. Government of India Act, 1858: Under this Act, the rule of the EIC was abolished and the British Parliament had taken direct responsibility towards ruling India. The EIC returned to being just a trading organization. The Board of Control (established under the 1784 Pitt's India Act) was abolished. A new ministry was created known as 'India House', headed by the Secretary of State for India who was a minister of cabinet rank.

3 is incorrect. British attitude towards the Indian army underwent drastic change. The British element in the Indian army was strengthened in order to ensure loyalty and efficiency. Thus, the

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number of Indian soldiers was drastically reduced from 238,000 in 1857 to 140,000 by 1863. The number of European Soldiers was increased from 45,000 to 65,000.

**Q3. A**

President Rule:

- It affects only Fundamental Rights.
- It suspends the government and ordinary law courts.
- It is imposed to restore the breakdown of law and order due to any reason.
- It is imposed in some specific area of the country

National emergency:

- It affects not only Fundamental Rights but also Centre–state relations, distribution of revenues
- And legislative powers between centre and states and may extend the tenure of the Parliament.
- It continues the government and ordinary law courts.
- It can be imposed only on three grounds—war, external aggression or armed rebellion.
- It is imposed either in the whole country or in any part of it.
- It has specific and detailed provision in the Constitution. It is explicit.
- It has no specific provision in the Constitution. It is implicit.

**Q4. C**

Statement 2 is correct: A Fuel Cell is an electrochemical device that directly converts the chemical energy of reactants (a fuel and an oxidant) into electricity. In this way, Fuel cells can operate at higher efficiencies than combustion engines and can convert the chemical energy in the fuel directly to electrical energy with efficiencies capable of exceeding 60%.

Statement 1 is correct: Fuel cells have lower or zero emissions of carbon dioxide as compared to combustion engines. Hydrogen fuel cells emit only water, addressing critical climate challenges as there are no carbon dioxide emissions. E.g. In Polymer electrolyte membrane fuel cells (PEMFCs) hydrogen is oxidized at anode to produce  $H^+$  ions, which migrate through the polymer electrolyte membrane to the cathode. Reduction of oxygen takes place at the cathode to form  $O^{2-}$  ions, which combine with the  $H^+$  ions to form  $H_2O$ .

Statement 3 is correct: A Microbial Fuel Cell (MFC) is a bio-electrochemical device that generates electricity by harnessing the metabolic activity of microorganisms. E.g. Algae-assisted microbial fuel cells (MFCs) capture carbon dioxide, treat wastewater and generate power. Also, soil-based microbial fuel cells (MFCs) harvest electricity from bacteria that naturally give out electrons to nearby conductors.

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There has been a significant effort to investigate alternate feedstock for bioethanol production. In this context, third-generation bioethanol from macroalgae has emerged as a viable alternative to food crop-based starch and lignocellulosic biomass.

**Q5. A**

51A of Constitution: There are a total of 11 fundamental duties in the Constitution, with the duty for parents or guardi to provide opportunities for education to his child or ward, as the case may be, between the age of six and fourteen years added by the 86th Constitutional Amendment Act. Fundamental duties have been added to the Constitution on the recommendations of Swaran Singh Committee. Voting in elections is not a fundamental duty of every Indian citizen.

**Q6. C**

**Q7. A**

The CPSEs fulfilling the following criteria are eligible to be considered for grant of Maharatna status.

- Having Navratna status.
- Listed on Indian stock exchange with minimum prescribed public shareholding under SEBI regulations.
- Average annual turnover of more than Rs. 25,000 crore, during the last 3 years.
- Average annual net worth of more than Rs. 15,000 crore, during the last 3 years.
- Average annual net profit after tax of more than Rs. 5,000 crore, during the last 3 years.
- Should have significant global presence/international operations.

Criteria for grant of Navratna status :- The Miniratna Category – I and Schedule ‘A’ CPSEs, which have obtained ‘excellent’ or ‘very good’ rating under the Memorandum of Understanding system in three of the last five years, and have composite score of 60 or above in the six selected performance parameters, namely,

- net profit to net worth,
- manpower cost to total cost of production/services,
- profit before depreciation, interest and taxes to capital employed,
- profit before interest and taxes to turnover,
- earnings per share and
- Inter-sectoral performance.

Criteria for grant of Miniratna status:-

The CPSEs which have made profits in the last three years continuously and have positive net worth are eligible to be considered for grant of Miniratna status.

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Presently, there are 7 Maharatna, 16 Navratna and 71 Miniratna CPSEs. Oil India is a Navratna PSU, not a Maharatna PSU.

**Q8. D**

Statement 1 is not correct: The International Coral Reef Initiative (ICRI), a network including 45 countries who represent over 75% of the world's coral reefs, has launched the Coral Reef Breakthrough in partnership with the Global Fund for Coral Reefs (GFCR) and the Un Climate Change High-Level Climate Champions. It is an informal partnership between Nations and organizations which strives to preserve coral reefs and related ecosystems around the world.

Statement 2 is not correct: ICRI was launched at the United Nations Global Conference on Sustainable Development of Small Islands Developing States in Barbados in 1994.

Statement 3 is not correct: CRI is a joint initiative of several countries in partnership with other coral reef nations around the world, non-governmental organizations (NGOs), international organizations, multilateral development banks, and private sector businesses.

**Q9. (c)**

Why in news: The Global River Cities Alliance (GRCA) was launched at COP28, the United Nations Climate Change Conference in Dubai, United Arab Emirates. The launch of GRCA, signifies a momentous step in global efforts toward river conservation and sustainable water management.

Statement 1 is not correct: The Global River Cities Alliance (GRCA), was led by the National Mission for Clean Ganga (NMCG) under the Ministry of Jal Shakti, Government of India.

Statement 2 is not correct: GRCA is a unique alliance covering 275+ global river-cities in 11 countries, international funding agencies and knowledge management partners and is first of its kind in the world. International funding agencies the World Bank, Asian Development Bank (ADB), Asian Infrastructure Investment Bank (AIIB) and knowledge management institutions like KPMG entered into the partnership.

Statement 3 is not correct: Alliance is entered into by India, Egypt, Denmark, Ghana, Australia, Bhutan, Cambodia, Japan and river-cities of The Hague (Den Haag) from the Netherlands, Adelaide from Australia, and Szolnok of Hungary. United Kingdom, France and Bangladesh are not part of the alliance

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**Q10. A ONLY STATEMENT 1 IS CORRECT**

The said Committee is the Second Administrative Reforms Commission headed by Veerappa Moily. The report Ethics in Governance is an important report. It had recommended among other things – Partial State Funding of elections, Anti defection law cases to be decided by the President of India for MPs and by Governors for MLAs and Collegium for appointment of Election Commissioners, etc.

**Q11. B 1 AN3 A ARE CORECT**

Black carbon consists of pure carbon in several linked forms formed through the incomplete combustion of fossil fuels, biofuel, and biomass, and is emitted in both anthropogenic and naturally occurring soot.

2 is incorrect. Though black carbon particles absorb heat, they warm the surrounding air, become lighter and rise to greater heights by a process called self-lift but they persist for longer time in the air. Because black carbon particles strongly absorb solar and terrestrial radiation and heats up the atmosphere it can upset the monsoon system. If deposited on snow, it could accelerate the heating of snow and quicken the melting of glaciers.

**Q12. C**

Poetry, music and dancing were popular among the people of the Sangam age. Liberal donations were given to poets by the kings, chieftains and nobles. The royal courts were crowded with singing bards called Panar and Viraliyar. They were experts in folk songs and folk dances.

**Q13. D**

India's climate is controlled by a number of factors which can be broadly divided into two groups — factors related to location and relief, and factors related to air pressure and winds. The factors affecting India's climate (location and relief) are: Latitude, the Himalayan Mountains, distribution of land and water, distance from the sea, altitude, relief, etc.

**Q14. A**

Statement 1 is correct- IFWCS envisages to provide market incentives to those forest divisions and plantation areas which effectively implement the criteria and the indicators of Indian Forest Management Standard (IFMS) exhibiting responsible forest management and agroforestry practices in their operation. The certification scheme may be of utility to the Forest Management Unit or forest divisions or corporations or wood-based industries, tree growers, timber or NTFP traders, saw millers, exporters/importers of wood-based and NTFP-based products, and other end-user Industries.

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Statement 2 is not correct- The Indian Forest and Wood Certification Scheme (IFWCS) would be governed by the Indian Forest and Wood Certification Council (IFWCC) and operated by the Indian Institute of Forest Management (IIFM) as the designated Scheme Operating Agency (SOA).

Statement 3 is not correct- IFWCS is applicable across the country, both in forest areas and Trees outside Forests (TOF) plantations on government, private, agroforestry and other lands. The certification is applicable for both timber and non-timber forest produce (NTFP).

**Q15. D**

Explanation:

The olive ridley is the smallest of all the sea turtle species. It gets its name from the olive green colouration of its carapace (shell). Olive ridleys are known for their arribadas or synchronized mass nesting during which tens of thousands of female ridleys come ashore to nest in the span of a few days. Odisha houses the world's largest mass nesting sites for the olive ridley turtle. The turtles mate in offshore waters during the breeding season, from October to February. Though international trade in these turtles and their products is banned under CITES Appendix I, they are still extensively poached for their meat, shell and leather, and their eggs, though illegal to harvest, have a significantly large market around the coastal regions.

It is mentioned under Schedule I of the Indian Wildlife (Protection) Act, and Vulnerable under IUCN Red list.

**Q16. D**

A lichen is a peculiar combination of an alga and a fungus-the two live deriving mutual benefit. They are group of greyish green plants which grow on rocks, tree-trunks, deadwood, etc. They are most common in wetlands, rare in rivers and streams and are not found in groundwater.

**Q17. B** only 1 and 3 are correct

Some hot spots are much richer than others in terms of their numbers of endemics. Five key factors have been taken into consideration and those biodiversity hot spot tops the with respect to these five factors are considered as hottest hot spots.

Factors –

- 1) Endemic Plants
- 2) Endemic vertebrates
- 3) Endemic plants/area ratio (species per square kilometre)
- 4) Endemic vertebrates/area ratio (species per 100 square kilometre)

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- 5) Remaining primary vegetation as % of original extent. There are 8 hottest hot spots in terms of five factors

## Q18. D

Context: The Supreme Court has held that a petition filed under Article 32 to challenge a binding judgment passed by the Court is not maintainable.

Article 32 deals with the 'Right to Constitutional Remedies', or affirms the right to move the Supreme Court by appropriate proceedings for the enforcement of the rights conferred in Part III of the Constitution. It states that the Supreme Court "shall have power to issue directions or orders or writs, including writs in the nature of habeas corpus, mandamus, prohibition, quo warranto and certiorari, whichever may be appropriate, for the enforcement of any of the rights conferred by this Part".

During the Constituent Assembly debates in December 1948, a discussion on this fundamental right (in the draft, it is referred to as Article 25), Dr B R Ambedkar had said, "If I was asked to name any particular Article in this Constitution as the most important — an Article without which this Constitution would be a nullity — I could not refer to any other Article except this one. It is the very soul of the Constitution and the very heart of it..." He said the rights invested with the Supreme Court through this Article could not be taken away unless the Constitution itself is amended and hence it was "one of the greatest safeguards that can be provided for the safety and security of the individual"

## Q19. - (b)

Forfeitures of basic surety or bonds are penalties courts impose for non-compliance with orders or non-fulfilment of contracts. If an individual or a party fails to fulfill contractual obligations or a breach of contract, the party adversely affected may seek compensation through the forfeiture of money, assets, or other defined valuables stipulated in the contract. Escheats refers to the claim of the government on the property of a person who dies without having any legal heirs or without leaving a will. Fines and penalties are levied for an infringement of a law.

## Q20. -B

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Statement 1 is correct: Ijara system or revenue farming was another feature of the revenue system of Mughal time. In affected areas peasants did not have resources available for undertaking cultivation or where owing to some calamity cultivation could not be done, were farmed out on ijara. The revenue officials or their relatives were not supposed to take land on ijara.

Statement 2 is correct: Revenue assignees (jagirdars) farmed out their assignments in lieu of a lump sum payment, generally to the highest bidders. Sometimes, jagirdars sub-assigned part of their jagirs to his subordinates/troopers. During the 18th century the ijara system became a common form of revenue assessment and collection.

Statement 3 is not correct: The practice of ijara, it seems, could not have been very common in the zabti provinces, Gujarat and the Mughal Dakhin. In the khalisa lands also this practice was very rare. However, in the jagir lands it became a common feature.

**Q21. C**

In case of buy back of Government Securities by RBI, there is an increased liquidity in the market. Increased liquidity has the high probability to bring in inflation.

**Q22. D**

The Namdapha Protected area is a Tiger Reserve and a national park.

Location: It is India's easternmost tiger reserve. It is located in the Changlang district of Arunachal Pradesh near the international border with Myanmar. The area is located between Dapha Bum ridge of Mishmi Hills, outspurs of North Eastern Himalayas and Patkai Ranges.

**Q23. B**

Tsunami is not felt in interior deep part of sea because in deep sea, length of tsunami waves is more and its height is less.

**Q24. (c)**

Context: Recently, The Insurance Regulatory and Development Authority of India (IRDAI) Vision 2047 plan was launched that aims at providing 'Insurance for all' by 2047 – the centenary year of India's Independence.

Option (c) is correct: 'Bima Trinity' is IRDAI's visionary goal of achieving 'Insurance For All By 2047'. It has three components-

I. Bima Vistaar :It provides a singular policy that encompasses health, life, property, and accidents.



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II. Bima Vaahaks :a dedicated women-centric workforce will operate at the grassroots and educate the head of households about insurance.

III. Bima Sugam:It is the one top solution to cater the divers insurance related needs.

**Q25. -(d)**

Non-tax revenue of the central government mainly consists of interest receipts on account of lo by the central government, dividends and profits on investments made by the government, fees and other receipts for services rendered by the government. Cash grants-in-aid from foreign countries and international organisations are also included.

Non-tax receipts are composed of the following six major groups:-

- Fiscal services
- Interest receipts
- Dividends & Profits
- General Services
- Social Services
- Economic services

**Q26. B**

ASIDE – Assistance to States for Developing Export Infrastructure and other Allied Activities. The objective of the scheme is to involve the states in the export effort by providing financial assistance for the creation of critical infrastructure for the development and growth of exports.

The Swadhar Scheme purports to address the specific vulnerability of each of group of women in difficult circumstances through a Home-based holistic and integrated approach.

‘Ujjawala -is a comprehensive scheme for the prevention of trafficking, rescue and rehabilitation of women and child victims of trafficking for commercial sexual exploitation in India. ICDS is well known. So, except ASIDE, all others have an impact on women Empowerment.

**Q27. - (c)**

The Belgian government recognised the existence of regional differences and cultural diversities. Between 1970 and 1993, they amended their constitution four times so as to work out an arrangement that would enable everyone to live together within the same country. Apart from the Central and the State Government, there is a third kind of government. This ‘community government’ is elected by people belonging to one language community – Dutch, French and German-speaking – no matter where they live. This government has the power regarding cultural, educational and language-related issues.

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'Community government' in Belgium is a good example of how power can be shared among different social groups, such as the religious and linguistic groups.

## Q28. B

The underprivileged and deprived in India have been subjected to exploitation by their fellow human beings. One such form of exploitation has been begar or forced labour without payment. Another closely related form of exploitation is buying and selling of human beings and using them as slaves. Both of these are prohibited under the Constitution as they provide the Fundamental Rights against exploitation. Forced labour was imposed by landlords, moneylenders and other wealthy persons in the past. Some form of bonded labour still continues in the country, specially in brick kiln work. It has now been declared a crime and it is punishable.

Under Article 24 no child below the age of 14 years shall be employed in work in any factory or mine or engaged in any other hazardous employment.

Under Article 23 traffic in human beings and begar and other similar forms of forced labour are prohibited and any contravention of this provision shall be an offence punishable in accordance with law.

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## CONSTITUTION OF INDIA Part III: Fundamental Rights

### **Right to Equality**

- √ Equality before law
  - equal protection of laws
- √ Prohibition of discrimination on grounds of religion, race, caste, sex or place of birth
  - equal access to shops, hotels, wells, tanks, bathing ghats, roads etc.
- √ Equality of opportunity in public employment
- √ Abolition of Untouchability
- √ Abolition of titles

### **Right to Freedom**

- √ Protection of Right to
  - freedom of speech and expression;
  - assemble peacefully;
  - form associations/unions;
  - move freely throughout the territory of India;
  - reside and settle in any part of India;
  - practise any profession, or to carry on any occupation, trade or business.
- √ Protection in respect of conviction for offences
- √ Right to life and personal liberty
- √ Right to education
- √ Protection against arrest and detention in certain cases

### **Right against Exploitation**

- √ Prohibition of traffic in human beings and forced labour
- √ Prohibition of employment of children in hazardous jobs

### **Right to Freedom of Religion**

- √ Freedom of conscience and free profession, practice and propagation of religion
- √ Freedom to manage religious affairs
- √ Freedom to pay taxes for promotion of any particular religion
- √ Freedom to attend religious instruction or worship in certain educational institutions

### **Cultural and Educational Rights**

- √ Protection of language, culture of minorities
- √ Right of minorities to establish educational institutions

### **Right to Constitutional Remedies**

- √ Right to move the courts to issue directions/orders/writs for enforcement of rights

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## Q29. C

Explanation:

Statement 1 is correct: Monoclonal antibodies are laboratory-made proteins that mimic the behavior of antibodies produced by the immune system to protect against diseases and foreign substances. An antibody attaches itself to an antigen – a foreign substance, usually a disease-causing molecule – and helps the immune system eliminate it from the body.

Statement 2 is not correct: According to research published in The Lancet journal of Infectious Diseases, m102.4 is a “potent, fully human” monoclonal antibody that neutralizes Hendra and Nipah viruses, both outside and inside of living organisms.

Statement 3 is correct: Monoclonal antibodies are specifically engineered and generated to target a disease. They are meant to attach themselves to the specific disease-causing antigen. An antigen is most likely to be a protein. For instance, most successful monoclonal antibodies during the pandemic were engineered to bind to the spike protein of the SARS-CoV-2 virus. The binding prevented the protein from exercising its regular functions, including its ability to infect other cells.

Statement 4 is correct: These antibodies are made using recombinant DNA technology. Here, the gene that codes for the monoclonal antibody’s binding region — also known as the variable region — is isolated from a B cell or synthesized in the laboratory. This antibody is then introduced into a host cell, often a bacterium or a mammalian cell, using recombinant DNA technology (which involves manipulating DNA material outside an organism to obtain specific traits or characteristics). The host cells, called bioreactors, produce large quantities of the monoclonal antibodies which are extracted, purified, and readied for use as desired.

## Q30. C

Statement 1 is correct: Stabilization function is the intervention of the government whether to expand or reduce the demand. Government through public institutions can curb or free the movement of goods and commodities.

Statement 2 is correct: Any change in the demand is influenced by the change in income levels and employment status from time to time. It is because of the overall aggregate demand that changes due to the level of employment and prices in the economy, from other stakeholders present in the economy,

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private players, apart from the government. Hence, the government has to take steps to correct fluctuations in such indicators as income and employment.

Statement 3 is correct: To ensure that domestic demand is catered, sometimes the government can curb exports for the time being to arrest the surge in inflation of goods and commodities. Such restrictions have been imposed when the supply of such goods is affected.

**Q31. C**

Statement 1: With rupee falling, country's imports become more expensive and exports cheaper. The reason is simple. It takes more rupees to pay for the same quantum of imports and fewer dollars for a buyer to pay for the same quantity of exports. More expensive imports are likely to drive inflation upward, especially in India where input products constitute a large part of our imports. In addition, a depreciating rupee also impacts the oil import bill since it costs more rupees per barrel of oil, which plays its own part in pushing inflation up.

Statement 2: There is a reduction in household consumption as there is now reduced demand of imported items, so there is more money to buy domestic goods. Alternatively, people prefer buying domestic goods, rather than more expensive imported goods, which pushes up their demand and thus inflation.

**Q32. (c)**

Arbitrage refers to selling a commodity from a cheaper market and selling immediately in a relatively dearer market. It controls fluctuations in the market.

The simultaneous purchase and sale of the same or a comparable asset in several marketplaces with the goal of making money off of minute variations in the asset's quoted price is known as arbitrage. It takes advantage of price changes in the price of the same or comparable financial instruments in several markets or formats.

**Q33. A**

Statement 1 is not correct: The Chinese pangolin is found in the Himalayan foothills in Eastern Nepal, Bhutan, Northern India, North-East Bangladesh and through Southern China. It is adaptable to a wide range of habitats including primary and secondary tropical forests, limestone and bamboo forests, grasslands and agricultural fields.

Statement 2 is not correct: In India, it has been given the highest level of protection as it is included in Schedule I of the Wildlife Protection Act 1972.

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Statement 3 is correct: The pangolin, also called scaly anteater, is an elongated, armour-plated insectivore of the order Pholidota. Seven species of pangolins are found across the world, of which, two are found in India, namely Indian pangolin and Chinese pangolin.

## Q34. A

Statement 1 is correct: India's first Hypervelocity Expion Tunnel Test Facility successfully established and tested by the Hypersonic Experimental Aerodynamics Laboratory at the Department of Aerospace Engineering, IIT Kanpur and is capable of generating flight speeds between 3-10 km/s, simulating the hypersonic condition. Named S2, it was indigenously designed and developed and is a valuable test facility for ongoing missions of ISRO and DRDO including Gaganyaan, RLV and hypersonic cruise missiles.

Statement 2 is not correct: The facility consists of 4 major sections--free piston driver, compression tube, shock/acceleration tube and test section with high vacuum system for generating and sustaining the hypersonic flow. The complete instrumentation of the facility; pressure sensors and associated equipment/instruments for acquiring and processing the data and the vacuum system with test section and associated instrumentation was acquired through the DST- FIST program.

Hypersonic research activities are fast growing in India and the implementation of Hypersonic Test Facility in India will enable more aerospace engineers and researchers to pursue hypersonic research. The research activities and data generated in the facility will serve as an input for optimization of existing vehicles as well as futuristic defense and Space Missions.

Establishment of such facility will position India globally for advanced experimental hypersonic research. It is a major capacity boost for India's space and defense sectors and puts India in a better position to develop advanced hypersonic technologies and systems fast-forwarding the Hon'ble PM's dream of a scientifically advanced nation.

## Q35. : (c)

Context: The Indo-Pacific Regional Dialogue (IPRD) 2023, the annual apex-level regional strategic dialogue of the Indian Navy, continued on 16 Nov 2023 in New Delhi. The three-day conference was conducted from 15 November 2023 to 17 November 2023.

Statement 1 is correct: The annual apex-level international conference of the Indian Navy – the Indo-Pacific Regional Dialogue (IPRD) held in New Delhi from 15 to 17 November 2023. The theme of the two professional sessions on the second day was “Maritime Connectivity through Shipping and Trade”.

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Statement 2 is correct: The overarching theme of IPRD-2023 is “*Geopolitical Impacts upon Indo-Pacific Maritime Trade and Connectivity*”. This year’s edition of the IPRD builds upon the previous one, which focussed upon ‘Operationalising the Indo-Pacific Oce Initiative (IPOI)’, by specifically addressing the ‘Trade, Connectivity and Maritime Trpport’ pillar of the IPOI. Both ‘Trade’ and ‘Maritime Trpport’ are, of course, segments of maritime connectivity.

## Q36. A

The Vande Mataram movement was started on February 11, 1907. The partition of Bengal infuriated people all over India. All sections of the Congress – the Moderates and the Radicals, as they may be called – opposed it.

Large public meetings and demonstrations were organized and novel methods of mass protest developed. The struggle that unfolded came to be known as the Swadeshi movement, strongest in Bengal but with echoes elsewhere too – in deltaic Andhra for instance, it was known as the Vandemataram Movement. The prominent leaders of the movement in the district were Harisarvothama Rao, Pingali Lakshmi Narayana, Kasinadhuni Veera Mallayya, Bodi Narayana Rao, and others.

The Swadeshi movement sought to oppose British rule and encourage the ideas of self-help, swadeshi enterprise, national education, and use of Indian languages. To fight for swaraj, the radicals advocated mass mobilization and boycott of British institutions and goods. Some individuals also began to suggest that “revolutionary violence” would be necessary to overthrow British rule.

## Q37. B

In every High Court, there is a Chief Justice and many other judges whose number is defined by the President of India.

Appointment of the Judges: As per Article 217, The Chief Justice of a High Court is appointed by the President with the consultation of the Chief Justice of the Supreme Court and the Governor of the State.

## Q38. A ONLY STATEMENT 2 IS CORRECT

Champaran Satyagraha (1917)— First Civil Disobedience Gandhi was requested by Rajkumar Shukla to look into the problems of the indigo planters, of Champaran in Bihar. The European planters had been forcing peasants to grow indigo on 3/2 0 of the total land (called tinkathia system). When towards the end of the nineteenth century German synthetic dyes replaced indigo, the European planters demanded high rents and illegal dues from the peasants in order to maximize

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their profits before the peasants could shift to other crops. Besides, the peasants were forced to sell the produce at prices fixed by the Europe. When Gandhi, joined now by Rajendra Prasad, Mazharul-Haq, Mahadeo Desai, Narhari Parekh, J.B. Kripalani, reached Champaran to probe into the matter, the authorities ordered him to leave the area at once. Gandhi defied the order and preferred to face the punishment. This passive resistance or civil disobedience of an unjust order was a novel method at that time. Finally, the authorities retreated and permitted Gandhi to make an enquiry. Now, the Government appointed a committee to go into the matter and nominated Gandhi as a member. Gandhi was able to convince the authorities that the tinkathia system should be abolished and that the peasants should be compensated for the illegal dues extracted from them. As a compromise with the planters, he agreed that only 25 per cent of the money taken should be compensated. Within a decade, the planters left the area. Gandhi had won the first battle of civil disobedience in India.

## Q39. A

Pair 1 is correctly matched: Relevance- The corridor area between Tadoba-Andhari Tiger Reserve and Kawal Tiger Reserve as a conservation reserve. The Kawal Tiger Reserve is located in the Telangana state along the banks of river Godavari, forming part of the Deccan peninsula-central highlands. The reserve is nestled in the Sahyadri Mountain Ranges, and has diverse habitat comprising dense forests, grasslands, open areas, rivers, streams and water bodies.

Pair 2 is not correctly matched: Why in news- Valmiki Tiger Reserve was in the news due to an increase in Tiger population caused by reduced human activity and mining b. Valmiki Tiger Reserve is located in the foothills of Himalayas on the north-west corner of Bihar, spread over the Northern part of the West Champaran district. The terrain is undulating with rich soil. River Gandak flows through the reserve which is spread over the lower Shivalik region with a deep water table. The tract is porous with boulders and sand deposits.

Pair 3 is not correctly matched: Why in news- Forest Department of Satpura Tiger Reserve discovered a rock painting dating back 10,000 years old.

The Satpura Tiger reserve is a prime example of the central Indian highlands ecosystem. It is a unique area of diverse land resources and is endowed with a rich bio-diversity including rare and endemic bryophytes and pteridophyte. It is located in Narmadapuram district of Madhya Pradesh bounded in west by Tawa Reservoir and dam which is fed by Tawa River.

## Q40. B



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Statement 1 is correct: The village was the smallest unit of administration. A group of villages constituted a pargana and a few parganas a shiqq which was equivalent to Mughal sarkar. However, in few areas, such as Punjab, Bengal, Malwa, etc. several shiqqs were placed under an officer whom we can equate with the Mughal subadar.

Statement 2 is not correct: Sher Shah attached great importance to the administration of justice. Civil cases of the Muslims were taken care of by the qazi, while the criminal cases were tried by the shiqqdar. The largest responsibility for detecting crimes rested upon muqaddams. If the muqaddam of the village, where the crime was committed, failed to capture the culprit, he was liable to severe punishment.

Statement 3 is correct: Sher Shah set up a strong army in order to administer his vast empire. He dispensed with tribal levies under tribal chiefs, and recruited soldiers directly, after verifying their character. Every soldier had his descriptive roll (chehra) recorded, and his horse branded with the imperial sign so that horses of inferior quality may not be substituted. The strength of Sher Shah's personal army is put at 1,50,000 cavalry and 25,000 infantry armed with matchlocks or bows, 5,000 elephants and a park of artillery. He set up cantonments in different parts of the empire and a strong garrison was posted in each of them.

**Q41. A**

Statement 1 is incorrect: Foundations of the central administration in India were laid down by Regulating Act of 1773. Statement 2 is incorrect: Charter act of 1833 made the Governor General of Bengal as the Governor General of India. Statement 3 is correct: The Pitt's India Act, 1784 was significant for two reasons. First, the Company's territories in India were for the first time called the British possessions in India' and second, the British Government was given the supreme control over Company's affairs and its administration in India.

**Q42. C**

All the provisions are amended by a simple majority of both Houses, except the extent of the Executive power of the Union which is amended by Special majority of the Parliament and consent of States.

**Q43. C**

Statement 1 is not correct: General Presumption of innocence of an accused is not applicable to PMLA. Rather, Section 24 of the PMLA postulates presumption of guilt of the accused under certain circumstances. Section 24 provides that in any proceeding relating to proceeds of crime under the Act-

# IQRA IAS

- In case of a person charged with the offence of money-laundering, an Authority or Court shall presume that such proceeds of crime are involved in money-laundering. This presumption can be displaced only when anything to the contrary is proved, and
- In the case of any other person, an Authority or Court, may presume that such proceeds of crime are involved in money-laundering.

Statement 2 is not correct: Section 45 of PMLA provides that all offences under the Act shall be cognizable and non-bailable. Cognizable offences mean the offences for which an investigating officer may arrest an accused without warrant. Similarly, non-bailable offences mean the offences in which bail cannot be claimed by the accused as a matter of right but is subject to discretion of the Court.

Statement 3 is correct: The Directorate of Enforcement (ED) is empowered to enforce the provisions of PMLA and

- Conduct investigation to trace the assets derived from proceeds of crime,
- Ensure prosecution of the offenders,
- provisionally attach the property, and
- ensure confiscation of tainted property by the Special Court.

Statement 4 is not correct: In Vijay Madanlal Choudhary vs Union Of India (2022 SC), the Supreme Court has held that the following provisions of PMLA (including the provisions relating to the attachment of property involved in money-laundering) are constitutionally valid:

Section	Provision
3	It inter alia defines the offence of Money Laundering
5	Attachment of property involved in money-laundering
17	Search & seizure of property
18	Search of persons
19	Power to arrest the accused
24	Burden of Proof
44	Offences to be triable by Special Courts

# IQRA IAS

45	Offences to be cognizable and non-bailable
50	Powers of authorities regarding summons, production of documents and to give evidence, etc

**Q44. A**

A mismatch in the expected revenue and expenditure can result in revenue deficit. Revenue deficit arises when the government's actual net receipts is lower than the projected receipts. On the contrary, if the actual receipts are higher than expected one, it is termed as revenue surplus.

A revenue deficit does not mean actual loss of revenue. When there is Revenue Deficit, it implies that government is 'dissaving', and is using up savings of other sectors to finance a part of its consumption expenditure. This further implies that government will now have to borrow not only its investment expenditure but also its consumption expenditure. This situation will lead to a buildup of stock of debts and liabilities and force the government, eventually to cut down expenditure.

Let's take a hypothetical example, if a country expects a revenue receipt of Rs 100 and expenditure worth Rs 75, it can result in net revenue of Rs 25. But the actual revenue of Rs 90 is realised and an expenditure is Rs 70. This translates into net revenue of Rs 20, which is Rs 5 lesser than the budgeted net revenue and called as revenue deficit.

The Fiscal Responsibility and Budget Management Act was enacted by Parliament in 2003 to bring in fiscal discipline. As per the initial targets, revenue deficit, which is revenue expenditure minus revenue receipts, have to be reduced to nil in five years beginning 2004-05. Each year, the government is required to reduce the revenue deficit by 0.5% of the GDP. The fiscal deficit is required to be reduced to 3% of the GDP by 2008-09. It would mean reduction of fiscal deficit by 0.3 % of GDP every year.

The implementation of Act was put on hold in year 2007-08 due to global financial crisis and the need for fiscal stimulus. In 2012 FRBM Act was amended and it was decided that the FRBM would target effective revenue deficit in place of revenue deficit.

**Q45. C**

The Tarapore Committee deals with Capital Account convertibility. The Committee has recommended that India should adopt Capital Account convertibility in a phased and gradual manner.

**Q46. A**

Option a is incorrect. Sedition law was originally drafted in 1837 by Thomas Macaulay but was inexplicably omitted when the Indian Penal Code (IPC) was enacted in 1860. It was later added in 1870 under Section 124A by an amendment introduced by Sir James Stephen.

# IQRA IAS

Option b is correct. Section 124A of the IPC defines sedition as an offence committed when "any person by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India". Disaffection includes disloyalty and all feelings of enmity. However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offence under this section.

Option c is correct. Sedition is a non-bailable offence under the Section 124A. Punishment ranges from imprisonment up to three years to a life term, to which fine may be added.

Option d is correct. A person charged under this law is barred from a government job. They have to live without their passport and must produce themselves in the court at all times as and when required.

**Q47. D**

Option a is correct. Different diseases are caused by different types of micro-organisms. An infection is the invasion and multiplication of pathogenic microbes in an individual or population. Disease is when the infection causes damage to the individual's vital functions or systems. An infection does not always result in disease.

Option b is correct. The agents that cause disease fall into five groups: viruses, bacteria, fungi, protozoa, and helminths (worms). Protozoa and worms are usually grouped together as parasites and are the subject of the discipline of parasitology.

Option c is correct. Intracellular pathogens must invade host cells in order to replicate, such pathogens can be subdivided further into those that replicate freely in the cell, such as viruses and certain bacteria and those, such as the mycobacteria, that replicate in cellular vesicles.

Option d is incorrect. Rapidly killing every host it infects is no better for the long-term survival of a pathogen than being wiped out by the immune response before it has had time to infect another individual.

**Q48. B**

# IQRA IAS

Pair 1 is not matched correctly: The Hattee community in the Tr-Giri area of Sirmaur district in Himachal Pradesh has finally received notification from the state government to be granted Scheduled Tribe (ST) status

Pair 2 is matched correctly: At the first-ever food festival, the variety of the Gutti Koya tribe's traditional cuisine was showcased at Ramachandrapuram, an internally displaced person's (IDP) habitation located in the Chintoor agency in the Alluri Sitarama Raju district of Andhra Pradesh.

Under the auspices of Jana Vikas Society (JVS), an organization that advocates for the rights and way of life of the Konda Reddi and Gutti Koya tribes in the Godavari agency, a one-day festival was organized on

Pair 3 is matched correctly: A video of a 31-year-old tribal man, taken soon before he was beheaded and set fire on the border of Manipur's Churachandpur and Bishnupur districts on July 2, went viral on social media.

The Zo ethnic tribe makes up the Kuki-Zomi-Hmar community, whereas the Koms are one of Manipur's smallest tribal communities.

**Q49. D**

Financial inclusion can have the following benefits for the economy:

- More domestic savings, more domestic consumption, hence boosts up aggregate demand.
- Greater risk taking ability of household with savings more penetration of corporate bond markets, small saving instruments and insurance products.
- Greater resilience of financial markets and banking system Boost to microfinance, hence a boost to self employment through greater edit off take for Micro and Small enterprises and Agriculture.
- More self-employment opportunities can help reduce income inequality and poverty.
- Better targeting and improving accessibility can be achieved through DBT of subsidies, scholarship payments and pensions.

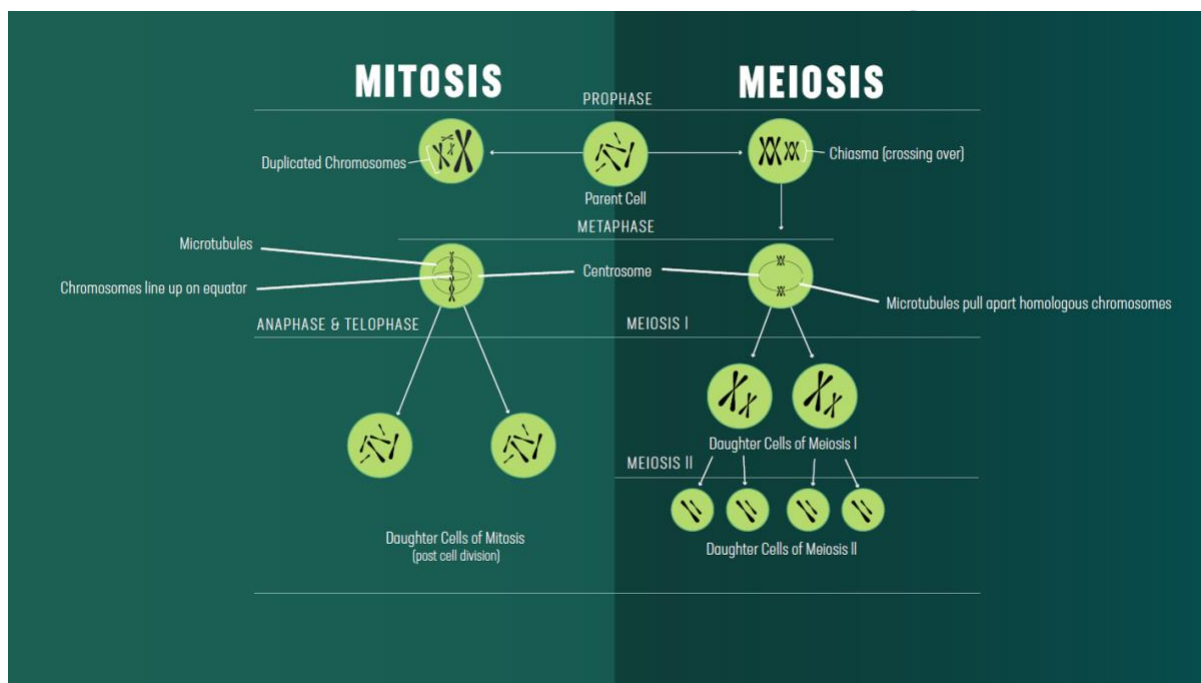
**Q50. A**

Meiosis is a type of cell division in sexually reproducing organisms that reduces the number of chromosomes in gametes (the egg and sperm). In meiosis the haploid gametes are produced from

# IQRA IAS

diploid cells. These gamete cells ultimately fuse during the fertilisation phase of sexual reproduction to produce diploid offspring.

Mitosis is the process by which a cell replicates its chromosomes and then segregates them, producing two identical nuclei in preparation for cell division. Mitosis is generally followed by equal division of the cell's content into two daughter cells that have identical genomes.



Statement 1 is not correct: Mitosis takes place in the somatic cells of the body while Meiosis takes place in the germ cells.

Statement 2 is correct and statement 3 is not correct: Mitosis occurs in both sexually as well as asexually reproducing organisms while Meiosis occurs in only sexually reproducing organisms.

Additional Info:

Uncontrolled mitosis occurs in cancer, where either genes that stop cell division (tumor suppressors) are switched off, or genes that encourage cell division (oncogenes) are overactive.

# IQRA IAS

Errors in meiosis can lead to the wrong number of chromosomes ending up in germ cells, this is called aneuploidy. This can trigger miscarriage, but is occasionally tolerated. One example is Down's syndrome, caused by trisomy 21. Another example is Klinefelter syndrome, where XY males have an additional X chromosome.

**Q51. B**

Gandhi Irwin pact was signed by Gandhiji on behalf of the Congress and by Lord Irwin on behalf of the Government. The terms of agreement included the immediate release of all political prisoners not convicted for violence. The Govt. also conceded the right to make salt for consumption to villages along the coast. The Congress on its part, agreed to discontinue the Civil Disobedience Movement. It was also understood that the Congress would participate in the next Round Table Conference.

**Q52. A (ONLY Statement 2 IS CORRECT)**

A large number of Muslim leaders had assembled in Delhi in December, 1927 to make a joint proposal to the British Government about Muslim interests. They made 4 proposals which are commonly known as 'Delhi Proposal'. Sind should be made a separate province. The North-West Frontier Province should be treated equal as other province. Muslims should have 33.3% representation in Central Legislature. In Punjab and Bengal, the proportion of representation should be in accordance with the population.

**Q53. A**

1938 (Haripura Session) - National Planning Committee was set up under the chairmanship of Jawaharlal Nehru.

1955(Avadi Session) - Through the Avadi Resolution, a socialistic pattern of development was adopted as the goal of the party.

1939 (Tripuri Session) - In the presidential elections of Congress, Netaji defeated Sitaramayya

**Q54. C**

The State of Finance for Nature 2023 is released by the United Nations Environment Programme. The State of Finance for Nature annual report series tracks finance flows to nature-based solutions (NbS) and compares them to the finance needed to maximize the potential of Nature based Solutions to help tackle climate, biodiversity and degradation challenges.

For the first time, this edition estimates the scale of nature-negative finance flows from both public and private sector sources globally. Nature based Solutions (NbS) provide critical investment opportunities as they are cost-effective and provide multiple benefits.

# IQRA IAS

The report focuses on current levels of NbS implementation and finance and how much finance for NbS is needed to reach specific Rio targets – limit climate change to 1.5°C, protect 30 per cent of land and sea by 2030 (30x30 target) and reach land degradation neutrality (LDN) by 2030. The NbS finance gap is the difference between current finance flows and the Rio-aligned scenario NbS finance needs.

For the first time, the 2023 edition of the State of Finance for Nature report estimates the scale of nature-negative finance flows from both public and private sector sources globally.

## Q55. A

Context: Recently, EIU's Liveability Index quantifies the challenges presented to an individual's lifestyle and standard of living in 173 cities worldwide.

Statement 1 is not correct: Global liveability index is released by the Economic Intelligence Unit.

Statement 2 is not correct: Vienna (Austria) tops the rankings for 2023, owing to its winning combination of stability, good culture and entertainment, reliable infrastructure, and exemplary education and health services. It has occupied this position regularly over the past several years, with only the covid-19 pandemic causing the city to vacate its place at the top spot. Copenhagen (Denmark) takes second place, while a shift towards normality after the pandemic has helped the Australian cities of Melbourne and Sydney to bounce back up the rankings to third and fourth place, following a sharp tumble in 2022

Statement 3 is correct: Damascus (Syria) and Tripoli (Libya) are still at the bottom of the list, held back by social unrest, terrorism and conflict. However, while Damascus has seen no improvement since last year, scores for Tripoli and other cities in the bottom ten have improved as the pandemic has receded.

## Q56. D

Context: Recently, Indian Bank's digital transformation effort, Project WAVE, introduces new services that offer advanced virtual experiences.

To streamline conventional paper-based procedures, the public sector lender with its headquarters located in Chennai has partnered with National E-Governance Services Ltd (NeSL) to launch an electronic bank guarantee (e-BG) service.



# IQRA IAS

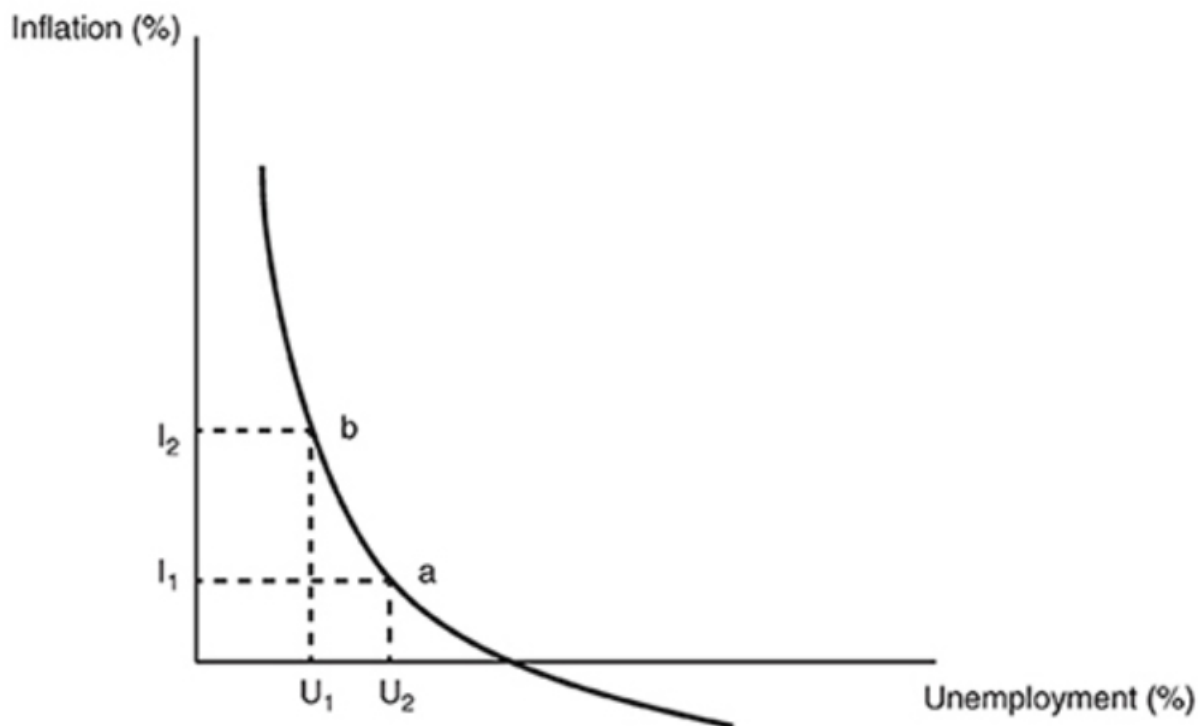
According to a bank statement, this action will cut the time it takes to issue and deliver a bank guarantee to the recipient from an industry average of three to four working days to a few minutes.

With the use of this facility, consumers' physical signatures and stamp paper would be replaced by digital e-signatures, digitizing the entire process. Indian Bank has introduced a service that allows qualified people and companies to apply for pre-approved business loans completely online.

**Q57. B**

The Phillips curve is an economic theory that inflation and unemployment have a stable and inverse relationship. Developed by William Phillips, it claims that with economic growth comes inflation, which in turn should lead to more jobs and less unemployment. The Phillips curve states that inflation and unemployment have an inverse relationship. Higher inflation is associated with lower unemployment and vice versa. The Phillips curve was a concept used to guide macroeconomic policy in the 20th century, but was called into question by the stagflation of the 1970s. Understanding the Phillips curve in light of consumer and worker expectations shows that the relationship between inflation and unemployment may not hold in the long run, or even potentially in the short run.

## THE PHILLIPS CURVE



# IQRA IAS

**Q58. A**

Statement 1 is not correct: The PMRBP is an award that recognizes children who have shown extraordinary skills and accomplishments. The award is for children who are between 5 and 18 years old.

Statement 2 is correct: The awards are given to children in seven categories for Bravery, Art & Culture, Environment, Innovation, Science & Technology, Social Service and Sports that deserve national recognition. Each awardee of PMRBP is given a medal, certificate and a citation booklet.

Statement 3 is not correct: The awards had been conferred by the President of India at a ceremonial function at Vigyan Bhawan on 22nd January, 2024. For Pradhan Mantri Rashtriya Bal Puraskar 2024, 19 children have been selected from all regions of the country for their exceptional achievements.

**Q59. C**

Statements 1 and 2 are correct: Messenger RNA (mRNA) is a type of single-stranded RNA involved in protein synthesis. mRNA is made from a DNA template during the process of transcription (DNA transcription). The role of mRNA is to carry protein information from the DNA in a cell's nucleus to the cell's cytoplasm (watery interior), where the protein-making machinery reads the mRNA sequence and translates each three-base codon into its corresponding amino acid in a growing protein chain. mRNA carries genetic information from DNA to ribosomes of the cell.

**Q60. C**

Statement a is correct: Extra budget borrowing is excluded from the fiscal deficit calculations, but at the same time, is added to the total debt of the government.

Statement b is correct: Though such borrowings are not a part of the consolidated fund of India, the interest payment for such borrowings is made from the consolidated fund.

Statement c is incorrect: According to the budget document, Off the Budget Borrowings or Extra budgetary resources (EBRs) are those financial liabilities that are raised by Public Sector Undertakings (i.e., government owned entities) for which repayment of entire principal and interest is done from Government budget. It is not taken in the name of the Government of India.

Statement d is correct: In recent years, several CPSUs have raised resources from the market by issuing Government of India-Fully Serviced Bonds (GoIFSB) for which the repayment of both principal and interest is to be done from the Budget.

# IQRA IAS

Several budgets announced schemes are financed out of extra budget borrowings. These borrowings are done by the public sector entities that are administering the schemes. In the past, schemes like the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY), Deen Dayal Upadhyay Gram Jyoti Yojana (DDUGJY), Swachh Bharat Mission (SBM), Pradhan Mantri Awas Yojana (PMAY), etc were financed out of extra budget borrowings.

The Comptroller and Auditor General of India has raised concern about rising off budget borrowings. The Fifteenth Finance Commission in its initial report advised both the centre and the states to eliminate extra budget borrowings.

**Q61. D**

A Hydrogen Bomb is a thermonuclear bomb which uses energy from a nuclear fission to perform fusion, thus producing far more power than an Atom Bomb, which uses only nuclear fission. Hydrogen Bombs are more portable than the Atom Bombs and can be used in missiles.

**Q62. A**

It is released every month by CSO and manufacturing and mining have the highest weightage.

**Q63. C**

Statement 1 is correct: Ramjet engines are a type of jet engine that differs from traditional engines in that they use the forward motion of a vehicle to compress incoming air, which is then burned with fuel in the compressed air without the need for rotating compressor blades.

Statement 2 is correct: They operate when the vehicle is traveling at high speeds, typically supersonic speeds, and are suitable for use in applications that require high speeds, such as missiles and some experimental aircraft. However, their efficiency is limited to high speeds, and they require additional systems to start and sustain combustion.

Statement 3 is correct: Brahmos is a two-stage supersonic cruise missile with a solid propellant booster engine as its first stage which brings it to supersonic speed and then gets separated. The second stage is made up of the liquid ramjet which takes the missile closer to 3 Mach speed in cruise phase. Hence, this missile is capable of maintaining supersonic speed throughout the flight.

**Q64. C**

In asexual reproduction new plants are obtained without production of seeds. Some of the types of the asexual reproduction are as follows:

- Budding - The small bulb-like projection coming out from the yeast cell is called a bud. The bud gradually grows and gets detached from the parent cell and forms a new yeast cell. The new yeast

# IQRA IAS

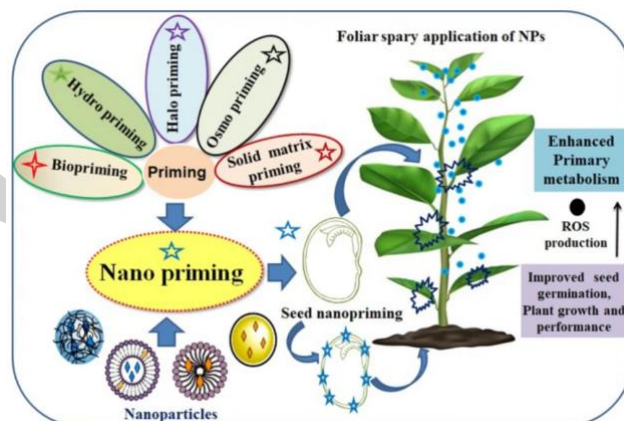
cell grows, matures and produces more yeast cells. Sometimes, another bud arises from the bud forming a chain of buds. If this process continues, a large number of yeast cells are produced in a short time.

- Fragmentation - When water and nutrients are available algae grow and multiply rapidly by fragmentation. An alga breaks up into two or more fragments. These fragments or pieces grow into new individuals. This process continues and they cover a large area in a short period of time.
- Spore formation - Spores are asexual reproductive bodies of the plants such as moss and ferns. Each spore is covered by a hard protective coat to withstand unfavourable conditions such as high temperature and low humidity. So they can survive for a long time. Under favourable conditions, a spore germinates and develops into a new individual.

The reproductive parts in the sexual reproduction of the plants are called Stamens (male reproductive part) and Pistil (female reproductive part). Anther contains pollen grains which produce male gametes. A pistil consists of stigma, style and ovary. Ovary contains one or more ovules. The female gamete or the egg is formed in an ovule. In sexual reproduction a male and a female gamete fuse to form a zygote. The transfer of pollen from the anther to the stigma of a flower is called pollination. If the pollen lands on the stigma of the same flower or another flower of the same plant, it is called self-pollination.

**Q65. C**

Nano-priming is an innovative seed priming technology that helps to improve seed germination, seed growth, and yield by providing resistance to various stresses in plants.



# IQRA IAS

It is a considerably more effective method compared to all other seed priming methods. The salient features of nanoparticles (NPs) in seed priming are to develop electron exchange and enhanced surface reaction capabilities associated with various components of plant cells and tissues.

Nano-priming induces the formation of nanopores in shoot and helps in the uptake of water absorption, activates reactive oxygen species (ROS)/antioxidant mechanisms in seeds, and forms hydroxyl radicals to loosen the walls of the cells and acts as an inducer for rapid hydrolysis of starch.

**Q66. B**

Except Article 15, 16, 19, 29 and 30 all other rights are available to both citizens and foreigners. Right against discrimination on ground of religion etc. (Article 15) and freedom of speech (Article 19) are available to citizens only.

**Q67. D**

All the statements are incorrect.

Statement 1 is incorrect: It is not mandatory that all the elections to rural and urban bodies are held on party lines. Though it is being debated that it should be made compulsory but not done till now. Statement 2 is incorrect: State Election Commissioner is appointed by Governor but removed in a manner as provided for removal of a judge of High Court i.e. by President only.

Statement 3 is incorrect: Seats are not compulsorily reserved for Other Backward Castes.

**Q68. B**

- The Chief Wildlife Warden (CWLW) is the statutory authority, under the Wildlife (Protection) Act, 1972 who heads the Wildlife Wing of the department and exercises complete administrative control over Protected Areas (PAs) within a state. He is the member-secretary of the State Board for Wild Life. Hence statement 1 is correct and statement 2 is not correct.
- Statement 3 is correct: According to the Wildlife (Protection) Act, 1972 the Chief Wild Life Warden may, if he is satisfied that any wild animal specified in Schedule I has become dangerous to human life or is so disabled or diseased as to be beyond recovery, by Order in writing and stating the reasons therefore, permit any person to hunt such animal or cause such animal to be hunted.

**Q69. C**

# IQRA IAS

**Context:** Aqaba Process Meeting took place in the wake of the recent Gaza attack by Israel.

In 2015, King Abdullah II of Jordan initiated the Aqaba Process aimed at improving regional and global cooperation in **combating terrorism and extremism through a comprehensive strategy** encompassing military, security, and ideological aspects.

This High-Level Aqaba Process meeting - the first in Spain - has focused on efforts to counter terrorism and extremism in West Africa and the Sahel, and was attended by delegations from the region, international Aqaba Process members, partners from various countries, and stakeholder organizations.

## Q70. D

Statement 1 is not correct: The poverty which is expressed in relation to the level of income with sections of society, is regarded as relative poverty.

Relative poverty is the level of poverty that changes based on context- it is relative to the economic climate. Relative Poverty is when a household receives 60% of the average household income in their own economy.

Statement 2 is not correct: Deprivation from the basic amenities as per national standards regarded as Absolute poverty.

Absolute poverty refers to when a person or household does not have the minimum amount of income needed to meet the minimum living requirements needed over an extended period of time. In other words, they cannot meet their basic needs. When an individual goes below this threshold their survival is threatened.

The UN defines this number as \$1.90 per day. This number is a representation of regions with extreme poverty such as Sub-Saharan Africa. However, this number is subject to change from region to region.

# IQRA IAS

**Table 3.1:** Estimates of Poverty in India (Tendulkar Methodology)

Year	Poverty ratio (%)			Number of poor (in millions)		
	Rural	Urban	Total	Rural	Urban	Combined
1993-94	50	32	45	329	75	404
2004-05	42	26	37	326	81	407
2009-10	34	21	30	278	76	355
2011-12	26	14	22	217	53	270

**Source:** India in figures, 2018, Government of India Central Statistics office.  
niti.gov.in/statistics (accessed on Nov. 15, 2021)

**Q71. B**

India-United States Defence Acceleration Ecosystem (INDUS X) launched in Washington DC, U.S. INDUS X factsheet released for operationalising the 'Defence Innovation Bridge' under Initiative on Critical and Emerging Technologies (iCET).

The launch of INDUS-X, a defense innovation ecosystem, took place in June 2023 when Prime Minister Narendra Modi visited the U.S. This initiative aims to strengthen the strategic technology partnership and defense industrial cooperation between India and the U.S. by involving governments, businesses, and academic institutions from both countries. INDUS-X will act as a bridge for defense innovation that will cover various aspects such as joint challenges, joint innovation fund, academia engagement, industry-start-up connect, investment by private entities in defense projects, mentoring by experts and niche technology projects.

**Q72. B**

- The Indian Constitution adopts universal adult franchise as a basis of elections to the Lok Sabha and the state legislative assemblies. Every citizen who is not less than 18 years of age has a right to vote without any discrimination of caste, race, religion, sex, literacy, wealth, and so on. The voting age was reduced to 18 years from 21 years in 1989 by the 61st Constitutional Amendment Act of 1988.
- The introduction of universal adult franchise by the Constitution-makers was a bold experiment and highly remarkable in view of the vast size of the country, its huge population, high poverty, social inequality and overwhelming illiteracy.
- Universal adult franchise makes democracy broad-based, enhances the self-respect and prestige of the common people, upholds the principle of equality, enables minorities to

# IQRA IAS

protect their interests and opens up new hopes and vistas for weaker sections. Hence statements 1 and 2 are correct.

- Though it upholds democracy but it does not ensure a responsible government. Hence statement 3 is not correct.

## Q73. A

Statement 1 is correct: Primary metabolites are the end products of metabolism directly involved in growth, development and reproduction of an organism. Thus, they are essential for the organism. Secondary metabolites are the compounds that do not directly involve in growth, development and reproduction of an organism. But they are important for several additional functions such as protection, competition, and species interactions.

Statement 2 is not correct: Steroids are a type of secondary metabolite. They are not directly involved in the growth, development, or reproduction of the organism, unlike primary metabolites like sugars and amino acids.

Statement 3 is not correct: The Primary metabolites are produced during the growth phase of the cell while secondary metabolites are produced during the non-growth phase.

## Q74. B

- Statement 1 is correct: In its recent report, the Central Pollution Control Board (CPCB) revealed that in 2022, Maharashtra had the highest count of polluted river segments in the nation, with 55 out of the nearly 311 polluted stretches identified across a network of 279 rivers in India.
- Some of the polluted rivers are Amba, Amravati, Bhatsa, Bhima, Bindusara, Bori, Burai, Chandrabhaga, Koyna, Krishna, Kundalika, Manjeera and Mula-Mutha.
- Statement 2 is not correct: Higher BOD indicates more oxygen is required, which is less for oxygen-demanding species to feed on, and signifies lower water quality. Inversely, low BOD means less oxygen is being removed from water, so water is generally purer.
- Statement 3 is correct: Although it is mandatory for enterprises to treat industrial effluents at effluent treatment plants (ETPs) before dumping them into bodies of water, most cities lack the facilities to treat domestic sewage. This is one of the major causes of river pollution.

## Q75. B Explanation:



# IQRA IAS

- Statement 1 is correct: *Sonneratia alba*, an evergreen mangrove species, can reach a height of five feet, displaying white flowers with a pink base and producing distinctive green apples as fruits. Typically found on recently formed mudflats, it plays a crucial role in preventing land erosion. The fruit is utilized in the preparation of pickles.
- Statement 2 is correct: Recently, Maharashtra has declared *Sonneratia alba*, or the mangrove apple, as the official state mangrove tree.
- Statement 3 is not correct: Maharashtra is the first coastal state in India to designate a state mangrove tree species in order to promote the conservation of salt-tolerant vegetation.

**Q76. D**

What is not included in GDP?

Intermediate goods, second hand sales and two others-

1. Non market transactions-trading or barter, Homemaker services
2. Underground economy-gambling, smuggling, prostitution, drugs and counterfeiting

**Q77. B**

Context: The United Nations Human Rights Council (UNHRC) urged the authorities to protect the family of Manipur-based human rights activist Babloo Loitongbam whose house was attacked by Meitei Leepun and Arambai Tengol groups in the conflict-hit State.

Statement 1 is correct: The Human Rights Council is an intergovernmental body within the United Nations system responsible for strengthening the promotion and protection of human rights around the globe and for addressing situations of human rights violations and making recommendations on them. It has the ability to discuss all thematic human rights issues and situations that require its attention throughout the year. It meets at the United Nations Office at Geneva (UNOG).

Statement 2 is not correct: The Human Rights Council consists of 47 Member States elected directly and individually by a majority of the 193 states of the UN General Assembly. Elections take place every year. Seats are equitably distributed among the five UN regional groups, with one-third of the members being renewed each year. Each member serves a three-year term. Membership is limited to two consecutive terms.

# IQRA IAS

Statement 3 is correct: The Office of the High Commissioner for Human Rights is the leading United Nations entity in the field of human rights, with a unique mandate to promote and protect all human rights for all people. The Council benefits from substantive, technical, and secretariat support from the Office of the High Commissioner for Human Rights (OHCHR). The Human Rights Council replaced the former United Nations Commission on Human Rights.

## Q78. A

Context: India slams Pakistan at 146th Inter-Parliamentary Union in Bahrain.

Statement 1 is correct: The IPU is the global organization of national parliaments.

What began in 1889 as a small group of parliamentari, dedicated to promoting peace through parliamentary diplomacy and dialogue, has since grown into a truly global organization with 180 Members and 15 Associate Members.

Statement 2 is not correct: The IPU is the global organization of national parliaments. It promotes democratic governance, institutions and values, working with parliaments and parliamentari to articulate and respond to the needs and aspirations of the people. It works for peace, democracy, human rights, gender equality, youth empowerment, climate action and sustainable development through political dialogue, cooperation and parliamentary action. It has headquarters in Geneva, Switzerland.

Statement 3 is not correct: The IPU is inching ever closer to universal membership, with 180 Member Parliaments out of the 193 countries in the world – from huge nations like China, India and Indonesia, to the tiny States of Cabo Verde, San Marino and Palau. Our Members represent the overwhelming majority of the world’s 8 billion people .

## Q79. B

To keep out intermediaries from revenue collection, so that the state could acquire a larger share of the income from land, the Ryotwari System was started by Alexander Read in 1792, for the Madras Presidency. Later it was introduced in the Bombay Presidency as well. Under this system, revenue was initially collected from each village separately, but later each cultivator or ‘ryot’ was assessed individually. Thus, peasants, not zamindars were established as property owners. Although this system increased the revenue collected by the state, the assessments were faulty and the peasants overburdened by the taxes. The landed intermediaries continued to flourish.

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**Q80. C**

The Supreme Court has prohibited the use of five chemicals, labeled as toxic by the Central Pollution Control Board (CPCB), in the manufacture of firecrackers. The banned chemicals include antimony, lithium, mercury, arsenic and lead in any form whatsoever. The responsibility to ensure compliance particularly in Sivakasi is given to the Petroleum and Explosive Safety Organization (PESO).

**Q81. A**

Light Pollution has a disruptive effect on natural cycles and inhibits the observation of stars and planets. Hence Statement 1 is incorrect. Light Pollution disturbs the reproductive cycles of some animals and disturbs migration of birds that navigate using stars. E.g., sea turtles. Artificial lights discourage females from nesting. If a female fails to nest after multiple false crawls, she will resort to less than optimal nesting spots or deposit her eggs in the ocean. In either case, the survival outlook for hatchlings is slim. Hence Statement 2 is correct.

In hum, it disturbs circadian rhythms that regulate hormones and other bodily functions. Excessive blue light emitted from LEDs directly affect the sleep pattern in Human by suppressing the production of the hormone melatonin, which mediates the sleep-wake cycle in hum. Hence Statement 3 is incorrect.

**Q82. A**

Usually, men from the same family held the position for generations or via hereditary. The grama bhojaka was often the largest landowner. Generally, he had slaves and hired workers to cultivate the land.

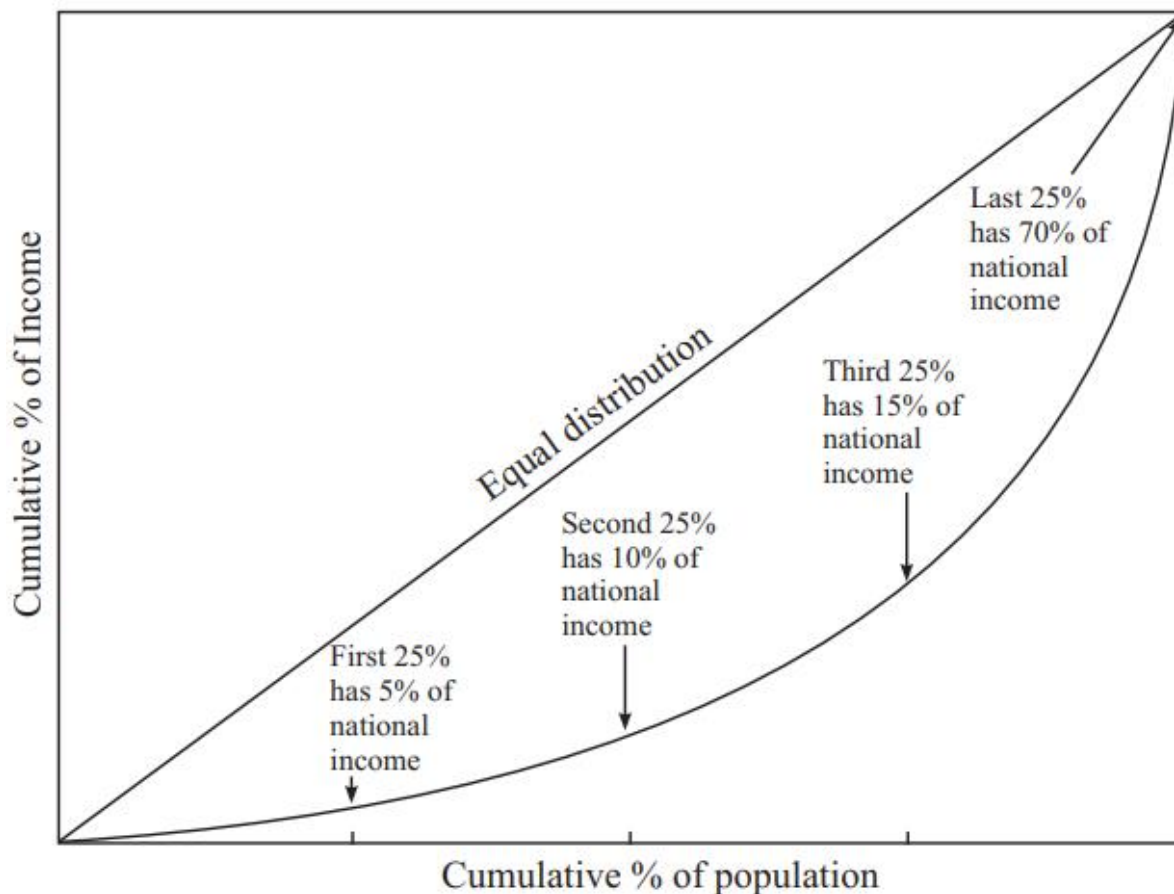
Besides, as he was powerful, the king often used him to collect taxes from the village. He also functioned as a judge, and sometimes as a policeman. Apart from the grama bhojaka, there were other independent farmers, known as grihapatis, most of whom were smaller landowners.

**Q83. B**

Statement 1 is not correct: It is a graphical representation of Inequality.

Statement 2 is correct: Lorenz curve graph indicates percentiles of the population against cumulative income or wealth of people at or below that percentile. It is a cumulative percentage of income and population.

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Statement 3 is correct: It is used to determine gini coefficient. Gini Coefficient is arithmetic measure of inequality which denotes the area between  $45^\circ$  and lorenz curve with respect to area below  $45^\circ$ . It most often ranges from 0 (or 0%) to 1 (or 100%). Complete equality, in which every individual has the exact same income or wealth, corresponds to a coefficient of 0

**Q84. C**

This is a Tamil word meaning three chiefs, used for the heads of three ruling families, the Cholas, Cheras, and Pandyas, who became powerful in south India around 2300 years ago. Each of the three chiefs had two centres of power: one inland, and one on the coast. Of these six cities, two were very important: Puhar or Kaveripattinam, the port of the Cholas, and Madurai, the capital of the Pandyas.

**Q85. D**

A number of provisions in the Constitution can be amended by a simple majority of the two Houses of Parliament outside the scope of Article 368. These provisions include:

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- Admission or establishment of new states.
- Formation of new states and alteration of areas, boundaries or names of existing states.
- Abolition or creation of legislative councils in states.
- Second Schedule-emoluments, allowances, privileges and so on of the president, the governors, the Speakers, judges, etc.
- Quorum in Parliament.
- Salaries and allowances of the members of Parliament.
- Rules of procedure in Parliament.
- Privileges of the Parliament, its members and its committees.
- Use of English language in Parliament.
- Number of puisne judges in the Supreme Court.
- Conferment of more jurisdiction on the Supreme Court.
- Use of official language.
- Citizenship-acquisition and termination.
- Elections to Parliament and state legislatures.
- Delimitation of constituencies.
- Union territories.
- Fifth Schedule-administration of scheduled areas and scheduled tribes.
- Sixth Schedule-administration of tribal areas.

## Q86. B

- Statement 1 is not correct: NCSC is a constitutional body established under Article 338.
- Statement 2 is correct: NCSC consists of a chairperson, a vice-chairperson and three other members. They are appointed by the President by warrant under his hand and seal. Their conditions of service and tenure of office are also determined by the President.
- Statement 3 is correct: The Commission is also required to discharge similar functions with regard to the other backward classes (OBCs) and the Anglo-Indian Community as it does with respect to the SCs. In other words, the Commission has to investigate all matters relating to the constitutional and other legal safeguards for the Anglo-Indian Community and report to the President upon their working.

## Q87. C

Under Article 361 of the Constitution, the President of India enjoys certain privileges and immunities.

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Statement 1 is correct: The President, or the Governor or Rajpramukh of a State, shall not be able to any court for the exercise and performance of the powers and duties of his office or for any act done or purporting to be done by him in the exercise and performance of those powers and duties.

Statement 2 is correct: No criminal proceedings whatsoever shall be instituted or continued against the President, or the Governor of a State, in any court during his term of office. A civil proceeding can be instituted against the President during his term of office if the act is done or alleged to be done by him in his personal capacity, whether before or after he entered upon the office of President.

Statement 3 is correct: No process for the arrest or imprisonment of the President, or the Governor of a State, shall be issued from any court during his term of office. Further, two months prior notice is provided to the President stating the nature of the proceeding, cause of action, the details of the other party including name, description, and place of residence, and the relief claimed by the other party.

**Q88. A**

In the Francis Coralie v. Union Territory of Delhi judgment, the Supreme Court of India held that the Right to Live under Article 21, includes the right to live with human dignity and all that goes along with it. Hence, it is a fundamental right available to the women in India as well.

Right to be protected against domestic violence and right to maternity relief are statutory rights for women under the Protection of Women from Domestic Violence Act 2005 and the Maternity Benefit Act, 1961 respectively.

Right to property is a Legal right which varies according to the different legislations for different religions. Women have the right to own and inherit property, and are protected against discriminatory inheritance laws.

**Q89. - (c)**

Statement 1 is correct: In case of agricultural loan, NPAs are the loan on which there are default for over two short cropping seasons or default on one long cropping season.

Statement 2 is correct: Reserve Bank of India defines an asset including a leased asset, as nonperforming when it ceases to generate income for the bank. A 'non-performing asset' (NPA) is an advance where (i) interest and/or installment of principal remain overdue for a period of more than

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90 days in respect of a Term Loan, (ii) the account remains 'out of order' ( i.e., outstanding balance remains continuously in excess of the sanctioned limit/drawing power in the account) for a period of more than 90 days, in respect of an Overdraft/Cash Credit (OD/CC), (iii) the bill remains overdue for a period of more than 90 days in the case of bills purchased and discounted, (iv) interest and/or instalment of principal remains overdue for two harvest seasons but for a period not exceeding two half years in the case of an advance granted for agricultural purposes, and (v) any amount to be received remains overdue for a period of more than 90 days in respect of other accounts.

## Q90. D

The twin balance sheet problem refers to the increasing debt on the books of corporate entities and the estimated Rs10 trillion of stressed assets that have piled up at banks because of the inability of borrowers to repay. Thus, TBS is two-fold problems for Indian economy which deals with:

- Over leveraged companies – Debt accumulation on companies is very high and thus they are unable to pay interest payments on lo. 40% of corporate debt is owed by companies who are not earning enough to pay back their interest payments. In technical terms, this means that they have an interest coverage ratio less than 1.
- Bad-loan-encumbered-banks – Non Performing Assets (NPA) of the banks is 9% for the total banking system of India. It is as high as 12.1% for Public Sector Banks contributing to four-fifths of the total NPAs. As companies fail to pay back principal or interest, banks are also in trouble.
- Encumbered securities are securities that are owned by one entity, but subject to a legal claim by another.

## Q91. A

1. Certificates of deposit (CD) are unsecured, negotiable, short-term instruments in bearer form, issued by commercial banks and development financial institutions. So, it is a money market instrument.

2. Debenture: A debenture is a type of debt instrument that is not backed by any collateral and usually has a term greater than 10 years. It is a capital market instrument.

3. Commercial bill: Commercial paper is a short-term unsecured promissory note, negotiable and transferable by endorsement and delivery with a fixed maturity period. It is issued by large and creditworthy companies to raise short-term funds at lower rates of interest than market rates. So it is Money market instrument.

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**Q92. B**

Statement 1 is incorrect. Alauddin Khalji was the first Monarch in the Delhi Sultanate who insisted that in Doab, the land revenue should be determined on the basis of measuring land cultivation. Biswa was the measurement unit of Alauddin Khalji. Akbar's Dahasala system of Land Revenue was also based on measurement but he was not the first to initiate it. Prior to him Alauddin Khalji, Sikandar Lodi and Sher Shah Sur also collected land revenue based on land measurement.

Statement 2 is correct. Jalaluddin Khalji was the first ruler of Delhi Sultanate who clearly put forward the view that a state was based on the willing support of the government and the majority of people in India were Hindus, a state in India could not be truly an Islamic State. He was liberal in his thinking and did not force Hindus to convert to Islam.

Statement 3 is correct. Tughlaqs used rough and small rubble for the foundation or even river boulders were used whenever available. Super structures of this period are of dressed stone or roughly shaped stonework. Lime was used in the construction mostly for the places that needed to be secured against the leakage of water hence the structures have minimal decoration.

**Q93. C**

Statement 1 is correct. The Global Forest Resources Assessment (FRA) is released by the Food and Agriculture Organization (FAO) of the United Nations. According to the latest report, India has ranked third among the top 10 countries that have gained in forest areas in the last decade.

Statement 2 is correct. The assessment examined employment in the forestry sector (including logging) with data from 136 countries that represent 91 per cent of the world's forests. India reported the maximum employment in the forestry sector in the world. Half of people employed in forestry in the world are in India.

**Q94. A**

Statement 1 is correct. Virtual currency is a type of digital currency that is available only electronically. Virtual currencies do not have status of a legal tender in India. This means that it is not guaranteed by the central government and thus all parties are not legally bound to accept it as a mode of payment. A virtual currency can be stored and transacted only through designated software, mobile or computer applications, or through dedicated digital wallets. The virtual currency transactions occur over the internet through secure, dedicated networks.

Statement 2 is incorrect. Cryptocurrency is a type of virtual currency which is decentralized (not centralized) in nature. Decentralization implies that there is no central authority where records of transactions are maintained. Cryptocurrencies use Distributed Ledger Technology, which enables that the transaction data is recorded and shared across multiple distributor networks, through independent computers.



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**Q95. D**

Option a is incorrect: Fundamental duties Fundamental duties which were inserted in Indian constitution under Part IV A by the 42nd Amendment of the Constitution (Article 51A), adopted in 1976, are defined as the moral obligations of all citizens to help promote a spirit of patriotism and to uphold the unity of India. The Fundamental Duties' are moral obligations of the state to help promote a spirit of patriotism is a wrong statement. We commonly attribute to states moral duties and obligations. For example, it is widely held that the state has a moral duty to protect its citizens from external threats and it is claimed that it ought to positively promote the welfare of its members. But these are not fundamental duties as mentioned in the Constitution.

Option b is incorrect. Privileges of few citizens against the many are powers and not duties.

Option c is incorrect. The Fundamental Duties' are claims of the citizens against the State as wrong as they are rights.

Option d is correct. The Fundamental Duties' are defined as the moral obligations of all citizens to help promote a spirit of patriotism and to uphold the unity of India. These duties set out in Part IV–A of the Constitution, concern individuals and the nation. Like the Directive Principles, they are not enforceable by courts unless otherwise made enforceable by parliamentary law.

**Q96. C**

Statement 1 is correct: Cultivation of vegetables for market is known as truck farming. It is closely associated with urbanization. The concentration of a large population in urban centers generates demands for vegetables. In order to meet this demand, the farmers grow vegetables in the urban fringe.

Statement 2 is correct: Vegetables being the perishable commodities, cannot be kept in the open for long. Hence, it is necessary to send it to the market from the urban fringe. Due to the development of me of trportation, the area of truck farming has expanded.

Statement 3 is correct: It is both labour and capital intensive and lays emphasis on the use of irrigation, HYV seeds, fertilizers, insecticides, greenhouses and artificial heating in colder regions.

**Q97. C**

Context: In the Bab el-Mandeb Strait, a missile fired by Houthi militants in Yemen almost missed a container ship.

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Bab el-Mandeb Strait connects the Red Sea (northwest) with the Gulf of Aden and the Indian Ocean (southeast).

The location of the Bab el Mandeb on one of the world's key shipping routes makes it a global flashpoint.

**Q98. D**

Statement 1 is incorrect: For centuries maharis were the chief repositories of Odissi dance. The maharis were originally temple dancers who came to be employed in royal courts which resulted in the degeneration of the art form. Around this time, a class of boys called gotipuas were trained in the art, they danced in the temples and also for general entertainment. Many of today's gurus of this style belong to the gotipua tradition.

Statement 2 is correct: Mohiniyattam is the classical solo dance form of Kerala. According to a Puranic story, Lord Vishnu took on the guise of a 'Mohini' to seduce the Asuras, both in connection with churning of the ocean and episode of the slaying of Bhasmasura. Mohiniyattam is characterized by graceful, swaying body movements with no abrupt jerks of sudden leaps. It belongs to the lasya style which is feminine, tender and graceful. The movements are emphasized by the glides and the up and down movement on toes, like the waves of the sea and the swaying of the coconut, palm trees and the paddy fields. Mohiniyattam lays emphasis on acting. The dancer identifies herself with the character and sentiments existing in the compositions like the Padams and Pada Varnams which give ample opportunity for facial expressions.

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Statement 3 is incorrect: Kuchipudi is one of the 8 classical dance forms of India. The dance form has emerged from a popular theatrical art 'Kuchipudi Yakshagana' named after the place of its origin, the village Kuchipudi in Andhra Pradesh. It is performed as dance drama i.e. performance in groups and also as solo items. Siddendra Yogi, the disciple of Narayana Theertha who lived in the 17th century, is credited to have systematised the art form of Kuchipudi Yakshagana.

**Q99. C**

3D Bioprinting is the utilization of 3D printing-like techniques to combine cells, growth factors, and biomaterials to fabricate biomedical parts that maximally imitate natural tissue characteristics.

Statement 1 is correct: 3D bioprinting can be used to reconstruct tissue from various regions of the body. A replacement organ can be constructed using cells from a patient's body. Patients with end-stage bladder disease can be treated by using engineered bladder tissues to rebuild the damaged organ. This technology can also potentially be applied to bone, skin, and cartilage and muscle tissue. Statement 2 is correct: 3D bioprinting may be used for developing various physiological environments required in the processes of drug research and development. In this approach, three-dimensional in vitro tissue models are created that mimic native tissues of the human body. These 3D models will thus reduce financial and human resource investments needed to bring a new drug to market.

Statement 3 is correct: Bioprinting generates new ways to produce prescription pills. It may be used for producing customized prescription pills according to the needs of each patient. Instead of taking many pills a day, future patients will take just one 3D printed composite pill that could contain multiple drugs each with a unique release rate.

**Q100. D**

Statement 1 is incorrect. Makkhali Gosala belonged to Ajivika School (not Lokayata School). Ajivikas were described as fatalists those who believe that everything is predetermined.

Statement 2 is incorrect. Philosopher Ajita Kesakambalin belonged to Lokayata School. They believed only in materialism. They taught that the physical body was the only essence of man and death his only end. They said that the enjoyment of pleasures was the only object of life.