

SOLVED PAPER 2023

GENERAL STUDIES PAPER-I

Time Allowed : Two Hours

Maximum Marks : 200

1. Consider the following statements:

1. Jhelum River passes through Wular Lake.
2. Krishna River directly feeds Kolleru Lake.
3. Meandering of Gandak River formed Kanwar Lake.

How many of the statements given above are correct?

- (a) Only one (b) Only two
(c) All three (d) None

2. Consider the following pairs

Port	Well known as
1. Kamarajar Port	First major port in India registered as a company
2. Mundra Port	Largest privately owned port in India
3. Visakhapatnam Port	Largest container port in India

How many of the above pairs are correctly matched?

- (a) Only one pair
(b) Only two pairs
(c) All three pairs
(d) None of the pairs

3. Consider the following trees:

1. Jackfruit (*Artocarpus heterophyllus*)
2. Mahua (*Madhuca indica*)
3. Teak (*Tectona grandis*)

How many of the above are deciduous trees?

- (a) Only one
(b) Only two
(c) All three
(d) None

4. Consider the following statements:

1. India has more arable area than China.
2. The proportion of irrigated area is more in India as compared to China.
3. The average productivity per hectare in Indian agriculture is higher than that in China.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

5. Which one of the following is the best example of repeated falls in sea level, giving rise to present-day extensive marshland?

- (a) Bhitarkanika Mangroves
(b) Marakkanam Salt Pans
(c) Naupada Swamp
(d) Rann of Kutch

6. Ilmenite and rutile, abundantly available in certain coastal tracts of India, are rich sources of which one of the following?

- (a) Aluminium (b) Copper
(c) Iron (d) Titanium

7. About three-fourths of world's cobalt, a metal required for the manufacture of batteries for electric motor vehicles, is produced by

- (a) Argentina
(b) Botswana
(c) the Democratic Republic of the Congo
(d) Kazakhstan

8. Which one of the following is a part of the Congo Basin?

- (a) Cameroon (b) Nigeria
(c) South Sudan (d) Uganda

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9. Consider the following statements :

1. Amarkantak Hills are at the confluence of Vindhya Sahyadri Ranges.
2. Biligirirangan Hills constitute the easternmost part of Satpura Ranges.
3. Seshachalam Hills constitute the southernmost part of Western Ghats.

How many of the statements given above are correct?

- (a) Only one (b) Only two
(c) All three (d) None

10. With reference to India's projects on connectivity, consider the following statements:

1. East-West Corridor under Golden Quadrilateral Project connects Dibrugarh and Surat.
2. Trilateral Highway connects Moreh in Manipur and Chiang Mai in Thailand via Myanmar.
3. Bangladesh-China-India-Myanmar Economic Corridor connects Varanasi in Uttar Pradesh with Kunming in China.

How many of the above statements are correct?

- (a) Only one
(b) Only two
(c) All three
(d) None

11. Consider the following statements:

Statement-I:

- India, despite having uranium deposits, depends on coal for most of its electricity production.

Statement-II:

- Uranium, enriched to the extent of at least 60%, is required for the production of electricity.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

- (c) Statement-I is correct but Statement-II is incorrect

- (d) Statement-I is incorrect but Statement-II is correct

12. Consider the following statements :

Statement-I:

- Marsupials are not naturally found in India.

Statement-II:

- Marsupials can thrive only in montane grasslands with no predators.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I

- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

- (c) Statement-I is correct but Statement-II is incorrect

- (d) Statement-I is incorrect but Statement-II is correct

13. Invasive Species Specialist Group' (that develops Global Invasive Species Database) belongs to which one of the following organizations?

- (a) The International Union for Conservation of Nature

- (b) The United Nations Environment Programme

- (c) The United Nations World Commission for Environment and Development

- (d) The World Wide Fund for Nature

14. Consider the following fauna:

1. Lion-tailed Macaque

2. Malabar Civet

3. Sambar Deer

How many of the above are generally nocturnal or most active after sunset?

- (a) Only one (b) Only two

- (c) All three (d) None

15. Which of the following organisms perform waggle dance for others of their kin to indicate the direction and the distance to a source of their food?
 (a) Butterflies (b) Dragonflies
 (c) Honeybees (d) Wasps
16. Consider the following statements:
 1. Some mushrooms have medicinal properties.
 2. Some mushrooms have psychoactive properties
 3. Some mushrooms have insecticidal properties
 4. Some mushrooms have bioluminescent properties.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) Only three (d) All four
17. Consider the following statements regarding the Indian squirrels:
 1. They build nests by making burrows in the ground.
 2. They store their food materials like nuts and seeds in the ground.
 3. They are omnivorous.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
18. Consider the following statements:
 1. Some microorganisms can grow in environments with temperature above the boiling point of water.
 2. Some microorganisms can grow in environments with temperature below the freezing point of water
 3. Some microorganisms can grow in a highly acidic environment with a pH below 3.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
19. Which one of the following makes a tool with a stick to scrape insects from a hole in a tree or a log of wood?
 (a) Fishing cat (b) Orangutan
 (c) Otter (d) Sloth bear
20. Consider the following
 1. Aerosols
 2. Foam agents
 3. Fire retardants
 4. Lubricants
 In the making of how many of the above are hydrofluorocarbons used?
 (a) Only one (b) Only two
 (c) Only three (d) All four
21. Consider the following statements:
Statement-I:
 • Interest income from the deposits in Infrastructure Investment Trusts (InvITs) distributed to their investors is exempted from tax, but the dividend is taxable.
Statement-II:
 • InvITs are recognized as borrowers under the 'Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002'.
 Which one of the following is correct in respect of the above statements?
 (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 (c) Statement-I is correct but Statement-II is incorrect
 (d) Statement-I is incorrect but Statement-II is correct.
22. Consider the following statements:
Statement-I:
 • In the post-pandemic recent past, many Central Banks worldwide, had carried out interest rate hikes.

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Statement-II:

- Central Banks generally assume that they have the ability to counteract the rising consumer prices via monetary policy means.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

23. Consider the following statements

Statement-I :

- Carbon markets are likely to be one of the most widespread tools in the fight against climate change.

Statement-II :

- Carbon markets transfer resources from the private sector to the State.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

24. Which one of the following activities of the Reserve Bank of India is considered to be part of 'sterilization'?

- (a) Conducting 'Open Market Operations'
- (b) Oversight of settlement and payment systems

- (c) Debt and cash management for the Central and State Governments

- (d) Regulating the functions of Non-banking Financial Institutions.

25. Consider the following markets:

1. Government Bond Market
2. Call Money Market
3. Treasury Bill Markets
4. Stock Market

How many of the above are included in capital markets?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four

26. Which one of the following best describes the concept of 'Small Farmer Large Field'?

- (a) Resettlement of a large number of people, uprooted from their countries due to war, by giving them a large cultivable land which they cultivate collectively and share the produce
- (b) Many marginal farmers in an area organize themselves into groups and synchronize and harmonize selected agricultural operations
- (c) Many marginal farmers in an area together make a contract with a corporate body and surrender their land to the corporate body for a fixed term for which the corporate body makes a payment of agreed amount to the farmers
- (d) A company extends loans, technical knowledge and material inputs to a number of small farmers in an area so that they produce the agricultural commodity required by the company for its manufacturing process and commercial production

27. Consider the following statements:

1. The Government of India provides Minimum Support Price for niger (*Guizotia abyssinica*) seeds.
2. Niger is cultivated as a Kharif crop.
3. Some tribal people in India use niger seed oil for cooking.

- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
- 28.** Consider the investments in the following assets:
1. Brand recognition
 2. Inventory
 3. Intellectual property
 4. Mailing list of clients
- How many of the above are considered intangible investments?
- (a) Only one
(b) Only two
(c) Only three
(d) All four
- 29.** Consider the following:
1. Demographic performance
 2. Forest and ecology
 3. Governance reforms
 4. Stable government
 5. Tax and fiscal efforts
- For the horizontal tax devolution, the Fifteenth Finance Commission used how many of the above as criteria other than population area and income distance?
- (a) Only two (b) Only three
(c) Only four (d) All five
- 30.** Consider the following infrastructure sectors:
1. Affordable housing
 2. Mass rapid transport
 3. Health care
 4. Renewable Energy
- On how many of the above does UNOPS Sustainable Investments in Innovation (S3i) initiative focus for its investments?
- (a) Only one
(b) Only two
(c) Only three
(d) All four
- 31.** In essence, what does 'Due Process of Law' mean?
- (a) The principle of natural justice
(b) The procedure established by law
(c) Fair application of law
(d) Equality before law
- 32.** Consider the following statements:
- Statement-I:**
- In India, prisons are managed by State Governments with their own rules and regulations for the day-to-day administration of prisons.
- Statement-II:**
- In India, prisons are governed by the Prisons Act, 1894 which expressly kept the subject of prisons in the control of Provincial Governments.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct, and Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct
- 33.** Which one of the following statements best reflects the Chief purpose of the 'Constitution' of a country?
- (a) It determines the objective for the making of necessary laws.
(b) It enables the creation of political offices and a government.
(c) It defines and limits the powers of government.
(d) It secures social justice, social equality and social security

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- 34.** In India, which one of the following Constitutional Amendments was widely believed to be enacted to overcome the judicial interpretations of the Fundamental Rights?
- 1st Amendment
 - 42nd Amendment
 - 44th Amendment
 - 86th Amendment
- 35.** Consider the following organizations/ bodies in India:
- The National Commission for Backward Classes
 - The National Human Rights Commission
 - The National Law Commission
 - The National Consumer Disputes Redressal Commission
- How many of the above are constitutional bodies?
- Only one
 - Only two
 - Only three
 - All four
- 36.** Consider the following statements:
- If the election of the President of India is declared void by the Supreme Court of India, all acts done by him/her in the performance of duties of his/her office of President before the date of decision become invalid.
 - Election for the post of the President of India can be postponed on the ground that some Legislative Assemblies have been dissolved and elections are yet to take place.
 - When a Bill is presented to the President of India, the Constitution prescribes time limits within which he/she has to declare his/her assent.
- How many of the above statements are correct?
- Only one
 - Only two
 - All three
 - None
- 37.** With reference to Finance Bill and Money Bill in the Indian Parliament, consider the following statements:
- When the Lok Sabha transmits Finance Bill to the Rajya Sabha, it can amend or reject the Bill.
 - When the Lok Sabha transmits Money Bill to the Rajya Sabha, it cannot amend or reject the Bill, it can only make recommendations.
 - In the case of disagreement between the Lok Sabha and the Rajya Sabha, there is no joint sitting for Money Bill, but a joint sitting becomes necessary for Finance Bill.
- How many of the above statements are correct?
- Only one
 - Only two
 - All three
 - None
- 38.** Consider the following statements:
- Once the Central Government notifies an area as a 'Community Reserve'
- the Chief Wildlife Warden of the State becomes the governing authority of such forest
 - hunting is not allowed in such area.
 - people of such area are allowed to collect non-timber forest produce.
 - people of such area are allowed traditional agricultural practices.
- How many of the above statements are correct?
- Only one
 - Only two
 - Only three
 - All four
- 39.** With reference to 'Scheduled Areas' in India, consider the following statements:
- Within a State, the notification of an area as Scheduled Area takes place through an Order of the President.
 - The largest administrative unit forming the Scheduled Area is the District and the lowest is the cluster of villages in the Block.

3. The Chief Ministers of the concerned States are required to submit annual reports to the Union Home Ministry on the administration of Scheduled Areas in the States.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
- 40.** Consider the following statements:
- Statement-I:**
- The Supreme Court of India has held in some judgements that the reservation policies made under Article 16(4) of the Constitution of India would be limited by Article 335 for maintenance of efficiency of administration.
- Statement-II:**
- Article 335 of the Constitution of India defines the term 'efficiency of administration'.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct
- 41.** In which one of the following regions was Dhanyakataka, which flourished as a prominent Buddhist centre under the Mahasanghikas, located?
- (a) Andhra
(b) Gandhara
(c) Kalinga
(d) Magadha
- 42.** With reference to ancient India, consider the following statements
1. The concept of Stupa is Buddhist in origin.
 2. Stupa was generally a repository of relics.
 3. Stupa was a votive and commemorative structure in Buddhist tradition.
- How many of the statements given above are correct?
- (a) Only one (b) Only two
(c) All three (d) None
- 43.** With reference to ancient South India, Korkai, Poompuhar and Muchiri were well known as
- (a) capital cities
(b) Ports
(c) centres of iron-and-steel making
(d) shrines of Jain Tirthankaras
- 44.** Which one of the following explains the practice of 'Vattakirutal' as mentioned in Sangam poems?
- (a) Kings employing women bodyguards
(b) Learned persons assembling in royal courts to discuss religious and philosophical matters
(c) Young girls keeping watch over agricultural fields and driving away birds and animals
(d) A king defeated in a battle committing ritual suicide by starving himself to death
- 45.** Consider the following dynasties
1. Hoysala
 2. Gahadavala
 3. Kakatiya
 4. Yadava
- How many of the above dynasties established their kingdoms in the early eighth century AD?
- (a) Only one
(b) Only two
(c) Only three
(d) None

46. With reference to ancient Indian History, consider the following pairs:

Literary work	Author
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- | | |
|----------------------|--------------------|
| 1. Devichandragupta | : Bilhana |
| 2. Hammira-Mahakavya | : Nayachandra Suri |
| 3. Milinda-panha | : Nagarjuna |
| 4. Nitivakyamrita | : Somadeva Suri |

How many of the above pairs

- | | |
|----------------|--------------|
| (a) Only one | (b) Only two |
| (c) Only three | (d) All four |

47. "Souls are not only the property of animal and plant life, but also of rocks, running water, and many other natural objects not looked on as living by other religious sects."

The above statement reflects one of the core beliefs of which one of the following religious sects of ancient India?

- | | |
|--------------|-----------------|
| (a) Buddhism | (b) Jainism |
| (c) Shaivism | (d) Vaishnavism |

48. Who among the following rulers of the Vijayanagara Empire constructed a large dam across Tungabhadra River and a canal-cum-aqueduct several kilometers long from the river to the capital city?

- | |
|------------------|
| (a) Devaraya I |
| (b) Mallikarjuna |
| (c) Vira Vijaya |
| (d) Virupaksha |

49. Who among the following rulers of medieval Gujarat surrendered Diu to the Portuguese?

- | |
|--------------------|
| (a) Ahmad Shah |
| (b) Mahmud Begarha |
| (c) Bahadur Shah |
| (d) Muhammad Shah |

50. By which one of the following Acts was the Governor General of Bengal designated as the Governor General of India?

- | |
|-----------------------------|
| (a) The Regulating Act |
| (b) The Pitt's India Act |
| (c) The Charter Act of 1793 |
| (d) The Charter Act of 1833 |

51. Consider the following statements in relation to Janani Suraksha Yojana:

1. It is a safe motherhood intervention of the State Health Departments.
2. Its objective is to reduce maternal and neonatal mortality among poor pregnant women.
3. It aims to promote institutional delivery among poor pregnant women.
4. Its objective includes providing public health facilities to sick infants up to one year of age.

How many of the statements given above are correct?

- | | |
|----------------|--------------|
| (a) Only one | (b) Only two |
| (c) Only three | (d) All four |

52. Consider the following statements in the context of interventions being undertaken under Anaemia Mukh Bharat Strategy:

1. It provides prophylactic calcium supplementation for pre-school children, adolescents and pregnant women.
2. It runs a campaign for delayed cord clamping at the time of child-birth
3. It provides for periodic deworming to children and adolescents.
4. It addresses non-nutritional causes of anaemia in endemic pockets with special focus on malaria, hemoglobinopathies and fluorosis.

How many of the statements given above are correct?

- | |
|----------------|
| (a) Only one |
| (b) Only two |
| (c) Only three |
| (d) All four |

53. Consider the following statements:

1. Carbon fibres are used in the manufacture of components used in automobiles and aircrafts.
2. Carbon fibres once used cannot be recycled.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

54. Consider the following actions:

1. Detection of car crash/collision which results in the deployment of airbags almost instantaneously
2. Detection of accidental free fall of a laptop towards the ground which results in the immediate turning off of the hard drive
3. Detection of the tilt of the smart-phone which results in the rotation of display between portrait and landscape mode

In how many of the above actions is the function of accelerometer required?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

55. With reference to the role of biofilters in Recirculating Aquaculture System consider the following statements

1. Biofilters provide waste treatment by removing uneaten fish feed.
2. Biofilters convert ammonia present in fish waste to nitrate.
3. Biofilters increase phosphorus as nutrient for fish in water.

How many of the statements given above are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

56. Consider the following pairs:

Objects in space	Description
1. Cepheids	Giant clouds of dust and gas in space
2. Nebulae	Stars which brighten and dim periodically

- | | |
|------------|---|
| 3. Pulsars | Neutron stars that are formed when massive stars run out of fuel and collapse |
|------------|---|

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

57. Which one of the following countries has its own Satellite Navigation System?

- | | |
|---------------|------------|
| (a) Australia | (b) Canada |
| (c) Israel | (d) Japan |

58. Consider the following statements:

1. Ballistic missiles are jet-propelled at subsonic speeds throughout their flights, while cruise missiles are rocket-powered only in the initial phase of flight.
2. Agni-V is a medium-range supersonic cruise missile, while BrahMos is a solid-fuelled intercontinental ballistic missile.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

59. Consider the following statements regarding mercury pollution:

1. Gold mining activity is a source of mercury pollution in the world.
2. Coal-based thermal power plants cause mercury pollution.
3. There is no known safe level of exposure to mercury.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

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60. With reference to green hydrogen, consider the following statements:

1. It can be used directly as a fuel for internal combustion.
2. It can be blended with natural gas and used as fuel for heat or power generation.
3. It can be used in the hydrogen fuel cell to run vehicles. How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

61. Consider the following countries:

1. Bulgaria
2. Czech Republic
3. Hungary
4. Latvia
5. Lithuania
6. Romania.

How many of the above-mentioned countries share a land border with Ukraine?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) Only five

62. With reference to the Earth's atmosphere, which one of the following statements is correct?

- (a) The total amount of insolation received at the equator is roughly about 10 times of that received at the poles.
- (b) Infrared rays constitute roughly two-thirds of insolation.
- (c) Infrared waves are largely absorbed by water vapour that is concentrated in the lower atmosphere.
- (d) Infrared waves are a part of visible spectrum of electromagnetic waves of solar radiation.

63. Consider the following statements:

Statement-I:

- The soil in tropical rain forests is rich in nutrients.

Statement-II:

- The high temperature and moisture of tropical rain forests cause dead organic matter in the soil to decompose quickly.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

64. Consider the following statements:

Statement-I:

- The temperature contrast between continents and oceans is greater during summer than in winter.

Statement-II:

- The specific heat of water is more than that of land surface.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-I not the correct explanation for Statement-I
- (c) Statement-I is Correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

65. Consider the following statements:

1. In a seismograph, P waves are recorded earlier than S waves.
2. In P waves, the individual particles vibrate to and fro in the direction of wave propagation whereas in S waves, the particles vibrate up and down at right angles to the direction of wave propagation.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

66. With reference to coal-based thermal power plants in India, consider the following statements:

1. None of them uses seawater.
2. None of them is set up in water-stressed district.
3. None of them is privately owned.

How many of the above statements are correct?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

67. 'Wolbachia method' is sometimes talked about with reference to which one of the following?

- (a) Controlling the viral diseases spread by mosquitoes
- (b) Converting crop residues into packing material
- (c) Producing biodegradable plastics
- (d) Producing biochar from thermochemical conversion of biomass

68. Consider the following activities:

1. Spreading finely ground basalt rock on farmlands extensively
2. Increasing the alkalinity of oceans by adding lime
3. Capturing carbon dioxide by released various industries and pumping it into abandoned mines in subterranean the form of waters carbonated

How many of the above activities are often considered and discussed for carbon capture and sequestration?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

69. 'Aerial metagenomics' best refers to which one of the following situations?

- (a) Collecting DNA samples from air in a habitat at one go
- (b) Understanding the genetic makeup of avian species of a habitat
- (c) Using air-borne devices to collect blood samples from moving
- (d) Sending drones to inaccessible areas to collect plant and animal samples from land surfaces and water bodies

70. 'Microsatellite DNA' is used in the case of which one of the following?

- (a) Studying the evolutionary relationships among various species of fauna
- (b) Stimulating 'stem cells' to transform into diverse functional tissues
- (c) Promoting clonal propagation of horticultural plants
- (d) Assessing the efficacy of drugs by conducting series of drug trials in a population

71. Consider the following statements with reference to India:

1. According to the 'Micro, Small and Medium Enterprises Development (MSMED) Act, 2006', the 'medium enterprises' are those with investments in plant and machinery between Rs. 15 crore and Rs. 25 crore.
2. All bank loans to the Micro, Small and Medium Enterprises qualify under the priority sector.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

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72. With reference to Central Bank digital currencies, consider the following statements:

1. It is possible to make payments in a digital currency without using US dollar or SWIFT system.
2. A digital currency can be distributed with a condition programmed into it such as a time-frame for spending it.

With of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

73. In the context of finance, the term 'beta' refers to

- (a) the process of simultaneous buying and selling of an asset from different platforms
- (b) an investment strategy of a portfolio manager to balance risk versus reward
- (c) a type of systemic risk that arises where perfect hedging is not possible
- (d) a numeric value that measures the fluctuations of a stock to changes in the overall stock market

74. Consider the following statements:

1. The Self-Help Group (SHG) programme was originally initiated by the State Bank of India by providing microcredit to the financially deprived.
2. In an SHG, all members of a group take responsibility for a loan that an individual member takes.
3. The Regional Rural Banks and Scheduled Commercial Banks support SHGs.

How many of the above statements are correct

- (a) Only one
- (b) Only two
- (c) All three
- (d) None

75. Consider the following statements:

Statement-I:

- India's public sector health care system largely focuses on curative care with limited preventive, promotive and rehabilitative care.

Statement-II:

- Under India's decentralized approach to health care delivery, the States are primarily responsible for organizing health services.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

76. Consider the following statements:

Statement-I:

- According to the United Nations' 'World Water Development Report, 2022', India extracts more than quarter of the world's groundwater withdrawal each year.

Statement-II:

- India needs to extract more than a quarter of the World's groundwater each year to satisfy the drinking water and sanitation needs of almost 18% of world's population living in its territory.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I

(c) Statement-I is correct but Statement-II is incorrect

(d) Statement-I is incorrect but Statement-II is correct

77. Consider the following statements:

1. According to the Constitution of India, the Central Government has a duty to protect States from internal disturbances.
2. The Constitution of India exempts the States from providing legal counsel to a person being held for preventive detention.
3. According to the Prevention of Terrorism Act, 2002, confession of the accused before the police cannot be used as evidence.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

78. Which one of the following countries has been suffering from decades of civil strife and food shortages and was in news in the recent past for its very severe famine?

- (a) Angola (b) Costa Rica
(c) Ecuador (d) Somalia

79. Consider the following statements:

1. In India, the Biodiversity Management Committees are key to the realization of the objectives of the Nagoya Protocol.
2. The Biodiversity Management Committees have important functions in determining access and benefit sharing, including the power to levy collection fees on the access of biological resources within its jurisdiction.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

80. Consider the following statements in respect of election to the President of India:

1. The members nominated to either House of the Parliament or the Legislative Assemblies of States are also eligible to be included in the Electoral College.
2. Higher the number of elective Assembly seats, higher is the value of vote of each MLA of that State.
3. The value of vote of each MLA of Madhya Pradesh is greater than that of Kerala.
4. The value of vote of each MLA of Puducherry is higher than that of Arunachal Pradesh because the ratio of total population to total number of elective seats in Puducherry is greater as compared to Arunachal Pradesh.

How many of the above statements are correct?

- (a) Only one (b) Only two
(c) Only three (d) All four

81. With reference to the Indian History, Alexander Rea, A. H. Longhurst, Robert Sewell, James Burgess and Walter Elliot were associated with:

- (a) archaeological excavations
(b) establishment of English Press in Colonial India
(c) establishment of churches in Princely States
(d) construction of railways in Colonial India

82. Consider the following pairs:

Site	Well known for
1. Besnagar	Shaivite cave shrine
2. Bhaja	Buddhist cave shrine
3. Sittanavasal	Jain cave shrine

How many of the above pairs are correctly matched?

- (a) Only one
(b) Only two
(c) All three
(d) None

83. Consider the following statements:

Statement-I:

- 7th August is declared as the National Handloom Day.

Statement-II:

- It was in 1905 that the Swadeshi Movement was launched on the same day.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

84. Consider the following statements in respect of the National Flag of India according to the Flag Code of India, 2002:

Statement-I:

- One of the standard sizes of the National Flag of India is 600 mm × 400 mm.

Statement-II:

- The ratio of the length to the height (width) of the Flag shall be 3:2.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

85. Consider the following statements in respect of the Constitution Day:

Statement-I:

- The Constitution Day is celebrated on 26th November every year to promote constitutional values among citizens.

Statement-II:

- On 26th November, 1949, the Constituent Assembly of India set up a Drafting Committee under the Chairmanship of Dr. B. R. Ambedkar to prepare a Draft Constitution of India.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I.
- (c) Statement-I is correct but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct

86. Consider the following statements:

Statement – I:

- Switzerland is one of the leading exporters of gold in terms of value.

Statement – II:

- Switzerland has the second largest gold reserves in the world.

Which one of the following is correct in respect of the above statements?

- (a) Both statement-I and Statement II are correct and Statement II is the correct explanation for Statement-I
- (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- (c) Statement-I is correct but Statement-II is incorrect.
- (d) Statement-I is incorrect but Statement-II is correct.

87. Consider the following statements:

Statement-I:

- Recently, the United States of America (USA) and the European Union (EU) have launched the Trade and technology council.

Statement-II:

- The USA and the EU claim that through this, they are trying to bring technological progress and physical productivity under their control.

Which one of the following is correct in respect of the above statements?

- Both statement-I and Statement II are correct and Statement II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct, and Statement-II is not the correct explanation for Statement-I
- Statement-I is correct, but Statement-II is incorrect.
- Statement-I is incorrect, but Statement-II is correct.

88. Consider the following statement:

Statement – I:

- India accounts for 3.2% of global export of goods.

Statement-II:

- Many local companies and some foreign companies operating in India have taken advantage of India's 'Production-linked Incentive' scheme.

Which one of the following is correct in respect of the above statements?

- Both statement-I and Statement II are correct and Statement-II is the correct explanation for Statement-I
- Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- Statement-I is correct but Statement-II is incorrect.
- Statement-I is incorrect but Statement-II is correct.

89. Consider the following statements:

The 'Stability and Growth Pact' of the European Union is a treaty that

- Limits the levels of budgetary deficit of the countries of the European Union.
- Makes the countries of the European Union to share their infrastructure facilities.
- Enables the countries of the European Union to share their technologies.

How many of the above statements are correct?

- Only one
- Only two
- All three
- None

90. Consider the following statements:

- Recently, all the countries of the United Nations have adopted the first-ever compact for international migration, the 'Global Compact for Safe, Orderly and Regular Migration (GCM)'.
- The objective and commitments stated in the GCM are binding on the UN member countries.
- The GCM address internal migration or internally displaced people also in its objectives and commitments.

How many of the above statements are correct?

- Only one
- Only two
- All three
- None

91. With reference to Home Guards, consider the following statements:

- Home Guards are raised under the Home Guards Act and Rules of the Central Government.
- The role of the Home Guards is to serve as an auxiliary force to the police in maintenance of internal security.
- To prevent infiltration on the international border/coastal areas, the Border Wing Home Guards Battalions have been raised in some States.

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How many of the above statements are correct?

- (a) Only one (b) Only two
(c) All three (d) None

92. With reference to India, consider the following pairs:

Action	The Act under which it is covered
1. Unauthorized wearing of police or military uniforms	The Official Secrets Act, 1923
2. Knowingly misleading or otherwise interfering with a police officer or military officer when engaged in their duties	The Indian Evidence Act, 1872
3. Celebratory gunfire which can endanger the personal safety of others	The Arms (Amendment) Act, 2019

How many of the above pairs are correctly matched?

- (a) Only one (b) Only two
(c) All three (d) None

93. Consider the following pairs:

Regions often mentioned in news	Reason for being in news
1. North Kivu and Ituri	War between Armenia and Azerbaijan
2. Nagomo-Karabakh	Insurgency in Mozambique
3. Kherson and Zaporizhzhia	Dispute between Israel and Lebanon

How many of the above pairs are correctly matched?

- (a) Only one
(b) Only two
(c) All three
(d) None

94. Consider the following statements:

Statement-I:

- Israel has established diplomatic relations with some Arab States.

Statement-II:

- The 'Arab Peace Initiative' mediated by Saudi Arabia was signed by Israel and the Arab League.

Which one of the following is correct in respect of the above statements?

- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct

95. Consider the following pairs with regard to sports awards:

- Major Dhyan Chand Khel Ratna Award:** For the most spectacular and outstanding performance by a sportsperson over period of last four years.
- Arjuna Award:** For the lifetime achievement by a sportsperson
- Dronacharya Award:** To honour eminent coaches who have successfully trained sportspersons or teams
- Rashtriya Khel Protsahan Puraskar :** To recognize the contribution made by sportspersons even after their retirement

How many of the above pairs are correctly matched?

- (a) Only one
(b) Only two
(c) Only three
(d) All four

96. Consider the following statements in respect of the 44th Chess Olympiad, 2022:

- It was the first time that the Chess Olympiad was held in India.
- The official mascot was named 'Thambi'.

3. The trophy for the winning team in the open section is the Vera Menchik Cup.
4. The trophy for the winning team in the women's section is the Hamilton-Russell Cup.

How many of the statements given above are correct?

- (a) Only one (b) Only two
(c) Only three (d) All four

97. Consider the following pairs:

Area of conflict mentioned in news	Country where it is located
1. Donbas	Syria
2. Kachin	Ethiopia
3. Tigray	North Yemen

How many of the above pairs are correctly matched?

- (a) Only one (b) Only two
(c) All three (d) None

98. In recent years Chad, Guinea, Mali and Sudan caught international attention for which one of the following reasons common to all of them?

- (a) Discovery of rich deposits of rare earth elements
(b) Establishment of Chinese military bases
(c) Southward expansion of Sahara Desert
(d) Successful coups

99. Consider the following heavy industries:

1. Fertilizer plants
2. Oil refineries
3. Steel Plants

Green hydrogen is expected to play a significant role in decarbonizing how many of the above industries?

- (a) Only one
(b) Only two
(c) All three
(d) None

100. Consider the following statements about G-20:

1. The G-20 group was originally established as platform for the Finance Ministers and Central Bank Governors to discuss the international economic and financial issues.
2. Digital public infrastructure is one of India's G-20 priorities.

Which of the statements given above is/are correct?

- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2

ANSWERS

1. (a) 2. (b) 3. (b) 4. (b) 5. (d) 6. (d) 7. (c) 8. (a) 9. (d) 10. (d)
11. (c) 12. (c) 13. (a) 14. (b) 15. (c) 16. (d) 17. (b) 18. (c) 19. (b) 20. (d)
21. (d) 22. (a) 23. (b) 24. (a) 25. (b) 26. (b) 27. (c) 28. (c) 29. (b) 30. (c)
31. (a) 32. (b) 33. (c) 34. (a) 35. (a) 36. (d) 37. (a) 38. (c) 39. (b) 40. (c)
41. (a) 42. (b) 43. (b) 44. (d) 45. (d) 46. (b) 47. (b) 48. (a) 49. (c) 50. (d)
51. (b) 52. (c) 53. (a) 54. (c) 55. (b) 56. (a) 57. (d) 58. (d) 59. (c) 60. (c)
61. (a) 62. (c) 63. (d) 64. (a) 65. (c) 66. (d) 67. (a) 68. (c) 69. (a) 70. (a)
71. (d) 72. (c) 73. (d) 74. (b) 75. (d) 76. (c) 77. (a) 78. (d) 79. (c) 80. (a)
81. (a) 82. (b) 83. (a) 84. (d) 85. (c) 86. (c) 87. (c) 88. (d) 89. (a) 90. (d)
91. (b) 92. (b) 93. (d) 94. (c) 95. (b) 96. (b) 97. (d) 98. (d) 99. (c) 100. (c)

EXPLANATIONS

1. (a)
Statements 2 and 3 are incorrect
- Kolleru lake is fed directly by water from the seasonal Budameru and Tammileru streams and lies between Krishna and Godavari rivers.
 - Kanwar lake or Kanwar jheel is located 22 km north-west of Begusarai town. It is a residual oxbow lake, formed due to meandering of Burhi Gandak river, a tributary of Ganga, in the geological past. It is largest of a series of shallow permanent and ephemeral wetlands formed in the depression between River Burhi Gandak and palaeochannel of River Bagmati.
2. (b)
- Kamarajar Port, located on the Coromandel Coast about 24 km north of Chennai Port, Chennai, is the 12th major port of India, and the first port in India which is a public company.
 - Mundra Port is India's first private port and largest container port, located on the northern shores of the Gulf of Kutch near Mundra, Kutch district, Gujarat.
 - Mundra Port is India's biggest commercial port by volume, has gained another distinction in container handling by overtaking State-run Jawaharlal Nehru Port Trust (JNPT) to become the leader by handling 5.65 million twenty-foot equivalent units (TEUs) in FY21, posting a growth of 18 per cent over the previous year
 - Jawaharlal Nehru Port Trust (JNPT) is the largest container port in India
3. (b)
- Jackfruit – evergreen tree
 - Mahua and teak are deciduous trees.

4. (b)

Statement 1 – correct

- India's arable land area is 156 million hectares while China's arable land area is 119 million hectares.

Statement 2 – correct

- India's proportion of irrigated area is 48% while China's proportion of irrigated area is 41%.

Statement 3 – incorrect

- Agricultural productivity in China is almost 50 to 100% more than that of India.

5. (d)

- The Rann was a once a shallow part of the Arabian Sea, until a geological shift closed off the connection with the sea.
- The region became a seasonal marshy salt desert over the years.
- During monsoons, the region fills up with water and forms a wetland.
- In the summer, the water dries to create a bed of white salty land.
- The Great Rann is a bowl-shaped depression, its eastern edge merging into the drainage area of the Luni River.

6. (d)

- Heavy mineral sands comprise a group of seven minerals, viz, ilmenite, leucoxene (brown ilmenite), rutile, zircon, sillimanite, garnet and monazite.
- Ilmenite ($\text{FeO} \cdot \text{TiO}_2$) and rutile (TiO_2) are the two chief minerals of titanium.
- Titanium dioxide occurs in polymorphic forms as rutile, anatase (octahedrite) and brookite

7. (c)

- World's largest supplier of cobalt is The Democratic Republic of Congo
- The Democratic Republic of Congo, holds a 73 per cent global share.

8. (a)

- The Congo Basin spans across countries—Cameroon, Central African Republic, Democratic Republic of the Congo, Republic of the Congo, Equatorial Guinea and Gabon.

9. (d)

- Amarkantak is in Maikala range.
- Anaimalai hills and Cardamom hills are the southernmost point of Western Ghats
- Seshachalam Hills are part of Eastern Ghats.

10. (d)

Statement 1 - incorrect

- The East-West Corridor is a part of the National Highways Development Project (NHDP) in India, which aims to connect Silchar in Assam to Porbandar in Gujarat.

Statement 2 - incorrect

- The Trilateral Highway aims to connect Moreh in Manipur, India, with Mae Sot in Thailand via Myanmar.

Statement 3 – incorrect

- The Bangladesh-China-India-Myanmar Economic Corridor (BCIM) is a proposed economic corridor that aims to connect Kunming in China with Kolkata in India, passing through Myanmar and Bangladesh.

11. (c)

Statement 1 – correct

- Natural uranium contains only 0.7% of the fissile U-235 and 99.3% non-fissile U-238.

Statement 2 – incorrect

- This requires enrichment to the level of at least 3% in case of electricity production and at least 80% in case of bombs.

12. (c)

Statement 1 is correct

- All extant marsupials are endemic to Australasia, Wallacea and the Americas.

Statement 2 is incorrect

- Most Australian marsupials live in dry scrub or desert habitat.
- In South America, marsupials live in forests or tropical rainforests.
- Marsupials can live in any part of the forest habitat, from the trees to the forest floor where, like the wombat, they burrow underground.

13. (a)

- The Global Invasive Species Database (GISD) is managed by the Invasive Species Specialist Group (ISSG) of the IUCN Species Survival Commission. It was developed between 1998 and 2000 as part of the global initiative on invasive species led by the erstwhile Global Invasive Species Programme (GISP).

14. (b)

Statement 1 incorrect

- Lion-tailed macaque: It is endemic to the Western Ghats of South India. It is diurnal, meaning it is active exclusively in daylight hours.

Statement 2 correct

- Malabar civet: Endemic to the Western Ghats of India. It is listed as Critically Endangered on the IUCN Red List as the population. The Malabar civet is considered nocturnal.

Statement 3 correct

- Sambhar deer: The sambar is a large deer native to the Indian subcontinent and Southeast Asia that has been listed as a vulnerable species on the IUCN Red List since 2008. Sambar deer are quite elusive and are most active at dusk and at night.

15. (c)

- The honey bees dance also known as waggle dance
- Waggle dance is a form of communication by which the bees tell their nestmates where to go to get the best source of food to bring back to the hive.
- By measuring the angle of the dance in relation to the sun, and the length of time the bee wagged its abdomen while moving in a figure of eight pattern, researchers have been able to map the distance and location where bees forage from month to month.

16. (d)

Statement 1 - correct

- Some mushrooms like *Fomes fomentarius* have also been used in traditional medicine.

Statement 2 - correct:

- Mushrooms are a good source of vitamin B6, which is essential for proper brain function. They also contain tryptophan, an amino acid that is essential for proper brain function, and serotonin, a neurotransmitter that helps regulate mood, appetite, sleep, and mood. Mushrooms have been found to have antidepressant properties and are being studied as a potential treatment for mental disorders like anxiety, stress, and depression.

Statement 3 - correct

- Some mushrooms found to be promising producers of antifeedant compounds as well as insecticidal proteins.

Statement 4 - correct

- Some mushrooms like *Roridomyces phyllostachydis* have the bioluminescent or light emitting properties.

17. (b)

Statement 1 - correct

- Indian Palm squirrel construct their nests in tree branches and hollow trunks.

Statement 2 - correct

- Nuts are their main food source throughout the year, particularly when they are hunkering down for winter. These creatures store them by burying them underground so they can retrieve them later when it turns to winter.

Statement 3 – correct

- Squirrels are omnivores.
- Squirrels mainly eat fungi, seeds, nuts and fruits, but they will also munch on eggs, small insects, caterpillars, small animals and even young snakes.

18. (c)

Statement 1 – correct

- A thermophile is an organism, a type of extremophile, that thrives at relatively high temperatures, between 41 and 122 °C.
- Thermophiles are capable of growing, carrying out metabolic processes, and reproducing at these extreme temperatures.
- *Pyrolobus fumarii*, a thermophile has been found at temperatures of 113° C / 235° F, which is hotter than the boiling point of water.

Statement 2 – correct

- Psychrophiles or cryophiles are extremophilic organisms that are capable of growth and reproduction in low temperatures, ranging from “20 °C (4 °F) to 20 °C (68 °F).

Statement 3 - correct

- Acidophiles are microorganisms that show optimal growth in highly acidic environments. These are of two types. The extreme acidophiles dwell in environments with a pH value <3, and moderate acidophiles grow optimally in conditions having pH values ranging between 3 and 5.

19. (b)

- Orangutan (great apes) makes a tool with a stick to scrape insects from a hole in a tree or to achieve a goal such as acquiring food and water, grooming, defence, communication, recreation or construction

20. (d)

- Hydrofluorocarbons (HFCs) are a group of industrial chemicals primarily used for cooling and refrigeration.
- HFCs were developed to replace stratospheric ozone-depleting substances that are currently being phased out under the Montreal Protocol on substances that deplete the ozone layer HFCs are entirely man-made. They are primarily produced for use in refrigeration, air-conditioning, insulating foams and aerosol propellants, with minor uses as solvents and for fire protection.
- Synthetic lubricants used in stationary HFC-based refrigeration equipment.

21. (d)

Statement 1 - incorrect

- The InVITs mobilise money from the investors and the money is then invested in the infrastructure projects. Hence, they are pooled investment vehicles like mutual funds. While, the mutual funds mainly invest in shares and bonds, the InVITs mainly invest in infrastructure projects.
- The money earned by the InVITs is distributed among the investors in the 4 ways: Interest on capital , Dividend , Rental income Repayment of capital.
- So far, income earned by unit holders on interest, dividend and rental income was taxed, while repayment of capital was not taxed. However, the Finance Act, 2023 proposed to impose tax on a portion of repayment of capital in the hands of unit holders in certain cases.

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Statement 2 - correct

- The Finance Act, 2021 amended the SARFAESI Act, 2002 to include the pooled investment vehicles as borrowers under the act. The REITs/InvITs are pooled investment vehicles.

22. (a)

Statement 1 - correct

- In the post-pandemic recent past, Central banks across the globe hiked the interest rates to counter inflation caused due to increased fiscal spending during covid-19 and supply chain disruptions due to Russia-Ukraine war..

Statement 2 - correct.

- The increase in the interest rates by the Central Banks is expected to increase the rate of interest on loans and consequently decrease in money supply and hence reduce the inflation rates.

23. (b)

Statement 1 – correct

- Carbon markets are mechanisms that put a price on carbon emissions. They create economic incentives for reducing emissions by allowing entities to buy and sell carbon credits. This helps to create a market-based approach to reducing greenhouse gas emissions and has been adopted by many countries and regions as a strategy to mitigate climate change.

Statement 2 - correct

- Carbon markets help mobilize resources and reduce costs to give countries and companies the space to smooth in the low-carbon transition.

24. (a)

- The RBI carries out sterilisation operations such as Open Market operations (OMOs) to control the total amount of money supply in the economy.

As part of OMOs, RBI can perform two actions:

- Buy G-Secs to inject money during slowdown.
- Sell G-Secs to suck out excess money during Inflation.

25. (b)

Statement 1 and 4 are correct and 2 and 3 are incorrect

- The financial market in a country comprises of money market and capital market.
- Money market includes raising of short-term capital (less than 1 year) through various instruments such as Treasury Bills, Cash Management Bills (CMBs), Commercial Paper, Call/Notice/Term Money, Tri-party Repos etc.
- These instruments are traded on the electronic trading platforms authorised by the RBI.
- On the other hand, capital market includes raising of long term capital (more than 1 year) through various instruments such as shares, corporate bonds, government bonds etc.
- These instruments are traded on the stock market such as BSE and NSE authorised by SEBI.

26. (b)

- Small Farmer Large Field – Marginal farmers with fragmented landholdings should organise themselves into groups so that they can reap benefits from higher economies of scale.

27. (c)

- The Government declares MSP for 23 crops, including oilseeds such as nigerseed. Niger seed is cultivated as a kharif crop. The tribal population use niger seed oil for cooking.
- Niger, a minor oilseed crop, is primarily cultivated in rainfed areas. The seeds of niger are utilized as a food source for humans.

28. (c)

Companies make investment in various Tangible and Intangible assets.

- Tangible assets– equipment, building, inventory etc.
- Intangible assets– Brand recognition, intellectual property, customer list etc.
- Mailing list of clients can be considered as intangible assets as it enables the companies to capitalise on marketing strategies and market their products better.

29. (b)

The 15th Finance commission has used the following criteria for the horizontal distribution of taxes between the states.

Criteria	Weight(%)
1. Population	- 15.0
2. Area	- 15.0
3. Forest & ecology	- 10
4. Income distance	- 45
5. Tax & fiscal efforts	- 2.5
6. Demographic performance	- 12.5

30. (c)

The Sustainable Investments in Infrastructure and Innovation (S3i) initiative was established by the United Nations Office for Project Services to fill the SDG Financing gap in developing countries. It seeks to channelise public and private financing into large scale infrastructure projects in the following sectors:

1. Renewable energy
2. Affordable Housing
3. Health Infrastructure

31. (a)

- The concept of “due process of law” and “natural justice” are closely connected and often used interchangeably in legal contexts.

- Due process of law: It requires the court to examine not just the procedural legitimacy of legislation, but also whether it is just, fair, and reasonable. The doctrine presents an actual and true image, any unfair methods employed while adopting laws are deemed invalid.

32. (b)

Statement 1 - correct

- Prison is a State subject under List-II of the Seventh Schedule in the Constitution.

Statement 2 - correct

- The management and administration of prisons falls exclusively in the domain of the state governments and is governed by the Prisons Act, 1894 and the Prison Manuals of the respective State Governments.
- The management and administration of prisons falls exclusively in the domain of the state governments, and is governed by the Prisons Act, 1894 and the Prison manuals of the respective state governments.

33. (c)

- The Constitution contains the basic principles and laws of a nation that determine the powers and duties of the government.
- Chief purpose is to provide a framework for a government by deciding the nature and form of the government.

34. (a)

- Constitution (First Amendment) Act, 1951 was passed to amend Article 19.
- The amendment was done to insert provisions fully securing the constitutional validity of zamindari abolition laws in general and certain specified State Acts in particular.
- Certain difficulties arose because of judicial decisions and pronouncements especially in regard to the chapter on

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fundamental rights in the first year of the functioning of the Constitution.

35. (a)

- NCBC is a constitutional body created through the 102nd constitutional amendment inserted Article 338B.
- NHRC is a statutory body Protection of Human Rights Act, 1993.
- National Law Commission is an executive body created through notification of the Government of India, Ministry of Law & Justice, Department of Legal Affairs.
- The National Consumer Disputes Redressal Commission (NCDRC) is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986.

36. (d)

Statement 1 - incorrect

- Article 71(2): If the election of a person as President or Vice-President is declared void by the Supreme Court, acts done by him in the exercise and performance of the powers and duties of the office of President or Vice-President, as the case may be, on or before the date of the decision of the Supreme Court shall not be invalidated by reason of that declaration.

Statement 2 - incorrect

- Constitution does not provide for any provision for the postponement of the election for the post of President of India.

Statement 3 - incorrect

- Article 111 - "Assent to the bills by the President" does not put any time limit under which such bill has to be assented.

37. (a)

Statement 1 - incorrect

- Rajya Sabha cannot amend or reject the finance bill but only can recommend changes which the Lok Sabha can accept or not.

Statement 2 - correct

- After a money bill is passed by the Lok Sabha, it is transmitted to the Rajya Sabha for its consideration. The Rajya Sabha has restricted powers with regard to a money bill. It cannot reject or amend a money bill. It can only make the recommendations.

Statement 3 - incorrect

- Finance bill is a money bill and there is no provision for holding joint sitting for a money bill.

38. (c)

Statement 1 - correct

- Protected area categories were first introduced in the Wildlife (Protection) Amendment Act (WLPA) of 2002 which was the amendment to the Wildlife Protection Act of 1972.
- Section 33 of the WLPA passes the authority of the sanctuary to the chief wildlife warden.

Statement 2 - correct

- After a forest has been made into a community reserve, people cannot hunt there, nor can they use it for agricultural practices.

Statement 4 – correct

- People of such area are allowed traditional agricultural practices, eg, jhum cultivation is allowed.

Statement 3 - correct.

- People of such areas are allowed to collect non-timber forest produce.

39. (b)

Statement 1 - correct

- Schedule V (Article 244) mentions that the "Scheduled areas" shall be declared by the President. In this Constitution, the expression "Scheduled Areas" means such areas as the President may by order declare to be Scheduled Areas.

Statement 2 - correct.

Criteria for declaring any area as a "Scheduled Area under the Fifth Schedule are:

- Preponderance of tribal population
- Compactness and reasonable size of the area
- A viable administrative entity such as a district, block or taluk.
- Economic backwardness of the area as compared to the neighboring areas.

Statement 3 – incorrect

- The Governor of each State having Scheduled Areas therein shall annually, or whenever so required by the President, make a report to the President regarding the administration of the Scheduled Areas in that State.

40. (c)

Statement I - correct

- The Court has held in several judgments (*Indra Sawhney and Others v Union of India and Others 1993*; *M Nagaraj and Others v Union of India and Others 2006*) that the reservation policies made under Article 16(4) of the Constitution would be limited by Article 335, which provides for "maintenance of efficiency of administration," while considering the claims of the Scheduled Castes (SCs) and the Scheduled Tribes (STs) in the making of appointments to public services and posts.

Statement II – incorrect

- Thus, the Constitution does not define the term "efficiency of administration" under Article 335. However, the judiciary has filled this gap in interpretation through *B K Pavitra (II) v Union of India case, 2019* wherein the judiciary held that "efficiency of administration in the affairs of the union or of a state must be defined in an inclusive sense, where diverse segments of society find representation as a true aspiration of governance by and for the people."

41. (a)

- The Buddhist monastery at Amaravati was located next to Dhanyakataka, capital of the Later Satavahanas. The Amaravati stupa was the largest in the Andhra country and is referred to in ancient inscriptions as a mahachaitya.

42. (b)

Statement 1 – incorrect

- Stupa is a pre-Buddhist tumuli in which sramanòas were buried in a seated position called chaitya.
- The concept of stupa does not have Buddhist origin. The word Stupa is mentioned in the Rigveda, Atharvaveda, Vajasaneyi Samhita, Taittiriya Samhita, etc.

Statement 2 - correct

- According to Buddhist sources, the remains of the Buddha's body (relics) were divided into eight parts and placed under the stupas.

Statement 3 - correct

The Stupas can be classified into five categories

- Relic stupas
- Object stupas
- Commemorative stupas
- Symbolic stupas
- Votive stupas

43. (b)

- The premier Chola port was Puhar (also known as Kaveripumpattinam and Poompuhar), the major Pandya port was Korkai, while Tondi and Muchiri were the important ports in the Chera kingdom.

44. (d)

- The practice of vattakirutal was one in which a defeated king committed ritual suicide by starving himself to death, accompanied by those who had been close to him during his lifetime. One instance of Chera king practising such

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vattakirutal is mentioned in the Sangam literature.

45. (d)

- Hoysala (10-14th century)
- Gahadavalas rulers (11-12th century)
- Kakatiya rulers (12-14th century)
- Yadava rulers (12-14th century)

46. (b)

- Hammira-Mahakavya – Nayachandra Suri.
- Milinda-panha – Nagarjuna.
- Nitivakyamrita – Somadeva Suri.
- Devichandragupta – Vishakhadutta

47. (b)

- As per Jainism metaphysics, souls are not only the property of animal and plant life, but also of entities such as stones, rocks, running water, and many other natural objects not looked upon as living by other sects.

48. (a)

- Deva Raya I constructed a dam across the Tungabhadra so that he could bring the canals into the city to relieve the shortage of water. He also built a dam on the river Haridra for irrigation purposes.

49. (c)

- Nino da Cunha, assumed office of the governor of Portuguese interests in India in 1529. Bahadur Shah of Gujarat, during his conflict with the Mughal emperor Humayun, secured help from the Portuguese by ceding to them in 1534 the island of Bassein and Diu.

50. (d)

Charter Act of 1833

- The Charter Act of 1833 was a significant constitutional instrument defining the scope and authority of the East India Company.
- The English East India Company ceased to be a commercial agency in India.

- The Governor-General of Fort William was hereafter called 'the Governor - General of India'. Thus, Bentinck was the first Governor-General of India'.

51. (b)

Statement 1 - incorrect

- Janani Suraksha Yojana is a centrally sponsored scheme under the National Rural Health Mission.

Statement 2 - correct

- It is being implemented with the objective of reducing maternal and infant mortality (includes new natal mortality) by promoting institutional delivery among pregnant women. The scheme is under implementation in all states and Union Territories (UTs), with a special focus on Low Performing States (LPS).

Statement 3 - correct

- It's chief objective is to reduce maternal and infant mortality by promoting institutional delivery among pregnant women.

Statement 4 - incorrect

- Its objective is to take care of pregnant women as a target group rather than providing the health facilities to sick infants up to the age of 1 year.

52. (c)

- The Anaemia Mukh Bharat (intensified iron-plus initiative) aims to strengthen the existing mechanisms and foster newer strategies for tackling anemia.
- It focuses on six target beneficiary groups, through six interventions and six institutional mechanisms to achieve the envisaged target under the POSHAN Abhiyan.

Statement 1 - not correct

- A key intervention is to give prophylactic iron and folic acid supplementation to children, adolescents and women of reproductive age and pregnant women irrespective of anemia, under Anaemia Mukh Bharat.

Statement 2 - correct

- The various behaviour change communication activities of the strategy will address four key behaviours, one of which is promoting practice of delayed cord clamping (by at least 3 minutes or until cord pulsations cease) in all health facility deliveries followed by early initiation of breastfeeding within 1 hour of birth.

Statement 3 – correct

- Bi-annual mass deworming for children in the age groups between 1-19 years is carried out on designated dates – 10th February and 10th August every year under National Deworming Day (NDD) programme. The Anaemia Mukht Bharat, also integrates deworming of women of reproductive age and for pregnant women as part of the NDD strategy.

Statement 4 - correct

- The strategy attempts to intensify awareness and integrate screening and treatment for following non-nutritional causes of anaemia with special focus on malaria, haemoglobinopathies and fluorosis.

53. (a)

Statement 1 - correct

- Carbon fibres are a new class of material that are replacing materials where the following properties like high specific strength, high stiffness, low density are desirable.
- Carbon fibre-based composites are normally replacing steel, aluminium etc. in automobiles, aircrafts, shipping etc.

Statement 2 - incorrect

- One challenge currently faced is that the recyclability of end-of-use carbon fibres is difficult as compared to the well-established recyclable processes of conventional material.

54. (c)

- Accelerometers are electro-mechanical devices that detect the acceleration of an object by measuring the vibration on the object. This vibration, which is in turn measured as a change in charge, is measured by the accelerometers. Thus, accelerometers are commonly used in digital devices like mobile phones, laptops which change their display based on orientation. They are also used in vehicles to measure non-uniform acceleration to trigger airbags.

55. (b)

Statement 1 – correct

- Biofilters use microorganisms, which are capable of degrading many compounds, fixed to an inorganic/organic medium (carrier) to break down pollutants present in a fluid stream. They also provide waste treatment by removing uneaten fish feed.

Statement 2 – correct

- A properly designed biofilter will keep ammonia and nitrite concentrations at levels that are not harmful to the fish. Biofilters convert ammonia nitrogen to nitrite nitrogen and then to the less toxic nitrate nitrogen for the fish.

Statement 3 - incorrect.

- Biofilters do not increase phosphorus as nutrient for fish in water. Phosphorus (P) is in fact removed to reduce the potential for eutrophication in waters.

56. (a)

- Cepheid variables are stars used as standard candles to measure the luminosity of objects in the sky.
- Nebulae are the birthplace of stars primarily made of gas and dust.
- Pulsars are neutron stars at the end of their lifecycle.

57. (d)

- Quasi-Zenith is the navigation satellite system of Japan.
- Countries that have their own navigation satellite systems include the USA, China, India, Russia, EU and Japan.

58. (d)

- Cruise missiles are jet-propelled at subsonic speeds throughout their flights, while ballistic missiles are rocket-powered only in the initial (boost) phase of flight, after which they follow an arcing trajectory to the target.
- The Agni-V is an Indian intercontinental ballistic missile (ICBM) with a range of over 5,000 km.
- BrahMos is a universal long-range supersonic cruise missile system that can be launched from land, sea and air.
- BRAHMOS has been jointly developed by DRDO, India, and NPOM, Russia.

59. (c)

Statement 1 – correct

- Gold mining activity is a source of mercury pollution in the world. During the gold extraction process, mercury is used to bind with gold particles, forming an amalgam. This technique, known as amalgamation, is commonly used in artisanal and small-scale gold mining (ASGM) operations. The amalgam is then heated to evaporate the mercury, leaving behind the gold. This process releases significant amounts of mercury vapour into the atmosphere.

Statement 2 – correct

- Coal-based thermal power plants are a significant source of mercury pollution. When coal is burned to produce electricity in these power plants, mercury, that naturally occurs in coal, is released as a gas into the atmosphere. This mercury can then travel long distances and deposit into water bodies, soil, and vegetation.

Statement 3 – correct

- Mercury is a toxic substance, and there is no known safe level of exposure to it. Even low levels of mercury exposure can have adverse health effects, particularly on the nervous system.

60. (c)

- Hydrogen being combustible can be directly used in internal combustion engines. It is as good as any hydrocarbon.
- Alternatively, hydrogen can also be used in fuel cells.

61. (a)

- Ukraine shares a land border with Hungary, Romania, Poland, Russia, Belarus, Slovakia, Moldova.



62. (c)

- The earth's surface receives most of its energy in short wavelengths. The energy received by the earth is known as incoming solar radiation, which in short, is termed insolation.

Statement (a) - incorrect

- Equator receives comparatively less insolation than the tropics.

Statement (b) - incorrect.

- The atmosphere is largely transparent to short wave solar radiation. The incoming solar radiation passes through the atmosphere before striking the earth's surface. Within the troposphere water vapour, ozone and other gases absorb much of the near infrared radiation.

Statement (c) - correct

- Some atmospheric gases, such as water vapour absorb and re-emit infrared energy from the atmosphere down to the Earth's surface.

Statement (d) – incorrect

- infra-red waves is outside the visible spectrum.

63. (d)

- The soils of the tropical rainforest are typically nutrient-poor. The high temperature and moisture of tropical rainforests cause dead organic matter in the soil to decompose quickly. In tropical rainforests, the plants grow so fast that they quickly consume the nutrients from the soil, and the leftover nutrients are then leached away by abundant rainfall, which leaves the soil infertile.

64. (a)

Statement 1 and 2 are correct and statement 2 is the correct explanation for Statement 1

- The temperature contrast between continents and oceans is greater during summer than in winter. This is the result of more heat and stronger sea breeze in the summer than in winter.
- The specific heat capacity of water is much greater than the land because the relative density of water is much lower than that of the land surface. However, this is true throughout the year and not related to any particular season.

65. (c)

- There are two types of body waves. They are called P and S-waves.
- P-waves move faster and are the first to arrive at the surface. These are also called 'primary waves'.

- The P-waves are similar to sound waves. They travel through gaseous, liquid and solid materials.
- S-waves arrive at the surface with some time lag. These are called secondary waves. An important fact about S-waves is that they can travel only through solid materials. This characteristic of the S-waves is quite important.
- P-waves vibrate parallel to the direction of the wave. The direction of vibrations of S-waves is perpendicular to the wave direction in the vertical plane. Hence, they create troughs and crests in the material through which they pass.

66. (d)

Statement 1 - incorrect

- In India, several coal-fired thermal power plants employ seawater for a variety of functions, including cooling the condenser system. Seawater is a frequent supply of cooling water for power plants near the coast.

Statement 2 - incorrect

- According to a report, 40 per cent of the country's thermal power plants are located in areas facing high water stress, a problem since these plants use water for cooling.

Statement 3 - incorrect

- There are both privately and publicly owned coal-fired thermal power stations in India.

67. (a)

- Wolbachia method: When Aedes aegypti mosquitoes carry Wolbachia, the bacteria compete with viruses like dengue, zika, chikungunya and yellow fever. This makes it harder for viruses to reproduce inside the mosquitoes. The

mosquitoes are much less likely to spread viruses from person to person. This means that when *Aedes aegypti* mosquitoes carry natural *Wolbachia* bacteria, the transmission of viruses like dengue, zika, chikungunya and yellow fever is reduced.

68. (c)

Activity 1 - correct.

- Spreading finely ground basalt rock on farmlands extensively aims to enhance the natural weathering of minerals that can react with CO₂ and form stable carbonates. This can increase the carbon storage capacity of soils and also improve soil fertility and crop yields.

Activity 2 - correct.

- Increasing the alkalinity of oceans by adding lime: This method involves dissolving limestone or other alkaline minerals in seawater, which can increase the ocean's capacity to absorb CO₂ from the atmosphere and reduce ocean acidification.

71. (d) Statement 1 – incorrect

Activity 3 - correct.

- Capturing carbon dioxide (CCS) involves capturing carbon dioxide (CO₂) at emission sources, transporting and then storing or burying it in a suitable deep, underground location. CCS can also mean the removal of CO₂ directly or indirectly from the atmosphere.

69. (a)

- Aerial metagenomics” typically refers to the study of genetic material (such as DNA or RNA) collected from the air, usually in the form of airborne particles or aerosols. It involves analysing the microbial communities present in the air and characterising their genetic diversity.

70. (a)

- Microsatellites are that section of DNA which induce variation between individuals within a species and variations between closely related species. Thus, it can be used as an indicator to trace the evolutionary history of species.

Existing and Revised Definition of MSMEs



Existing MSME Classification			
Criteria : Investment in Plant & Machinery or Equipment			
Classification	Micro	Small	Medium
Mfg. Enterprises	Investment < Rs. 25 lac	Investment < Rs. 5 cr.	Investment < Rs. 10 cr.
Services Enterprise	Investment < Rs. 10 lac	Investment < Rs. 2 cr.	Investment < Rs. 5 cr.

Revised MSME Classification			
Composite Criteria : Investment And Annual Turnover			
Classification	Micro	Small	Medium
Manufacturing & Services	Investment < Rs. 1 cr. and Turnover < Rs.5 cr.	Investment < Rs. 10 cr. and Turnover < Rs.50 cr.	Investment < Rs. 20 cr. and Turnover < Rs.100 cr.

- A revised MSME definition was announced in the Atmanirbhar Bharat package on 13th May, 2020. As per this announcement, the definition of micro manufacturing and services units was increased to Rs. 1 crore of investment and Rs. 5 crore of turnover.
- The limit of small unit was increased to Rs. 10 crore of investment and Rs 50 crore of turnover.
- Similarly, the limit of medium unit was increased to Rs. 20 crore of investment and Rs. 100 crore of turnover.
- The Government of India on 01.06.2020 decided for further upward revision of the MSME definition. For medium enterprises, now it will be Rs. 50 crore of investment and Rs. 250 crore of turnover.

Statement 2- incorrect

- All bank loans to micro, small and medium enterprises do not qualify under the priority sector.
- All bank loans to MSMEs that meet the criteria outlined in the Master Direction on “Priority Sector Lending (PSL) - Targets and Classification” dated September 4, 2020 are eligible to be classified as priority sector lending.

72. (c)

- It is possible to make payments in a digital currency without using the US dollar or SWIFT system. Central Bank Digital Currencies (CBDCs) are digital forms of a country’s fiat currency issued by the central bank. They are designed to be an alternative to physical cash and can be used for payments within a country. As digital currencies, they are not dependent on the US dollar or the SWIFT system for transactions. CBDCs enable direct peer-to-peer transfers,

bypassing traditional intermediaries.

- A digital currency can be distributed with a condition programmed into it such as a time-frame for spending it. CBDCs can be designed with programmable features, allowing certain conditions to be set. This includes setting an expiration date or time-frame for spending the digital currency. For example, a central bank may issue a digital currency that expires after a certain period to encourage its circulation and prevent hoarding.

73. (d)

- In finance, the term “beta” is used to measure the volatility or systematic risk of a stock or investment in relation to the overall stock market. It quantifies the relationship between the price movements of an individual asset (such as a stock) and the overall movements of the market as a whole. A beta value greater than 1 indicates that the asset tends to move more than the market, while a beta value less than 1 indicates that the asset tends to be less volatile than the market. Beta is commonly used by investors to assess the risk associated with a particular investment and to make comparisons between different investments.

74. (b)

Statement 1 – incorrect

- The SHG movement in India was primarily started by non-governmental organizations (NGOs), with the National Bank for Agriculture and Rural Development (NABARD) playing a significant role in promoting and supporting SHGs.

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- The State Bank of India and other banks later joined in providing financial services to SHGs.

Statement 2 – correct

- In Self-Help Groups (SHGs), all members of a group take responsibility for a loan that an individual member takes. This is a characteristic feature of SHGs, where members provide mutual support and guarantee each other's loans.

Statement 3 – correct

- Regional Rural Banks and Scheduled Commercial Banks do support SHGs. These banks often provide financial assistance and credit facilities to SHGs to promote entrepreneurship and financial inclusion among the economically disadvantaged sections of society.

75. (d)

Statement 1 - incorrect.

- India's public sector healthcare system focuses on expanding preventive, promotive, curative, palliative and rehabilitative services through the public health sector which focuses on quality of these services. Healthcare is not restricted to merely medical care.

Statement 2 - correct.

- The states are primarily in charge of organising health services under India's decentralised system for providing healthcare. The states are primarily responsible for organizing health services, since public health is a subject under State list of 7th Schedule.

76. (c)

Statement 1- correct.

- According to the United Nations' 'World Water Development Report, 2022,' India

extracts more than a quarter of the world's groundwater withdrawal every year.

Statement 2- incorrect

- About 89% of this groundwater is used in India for irrigation.

77. (a)

Statement 1 – correct

- Article 355: It shall be the duty of the Union to protect every State against external aggression and internal disturbance and to ensure that the government of every State is carried on in accordance with the provisions of this Constitution.

Statement 2 – incorrect

- Article 22 of Constitution of India (Protection against arrest and detention in certain cases) does provide for the following when any person is detained in pursuance of an order made under any law providing for preventive detention.
- The authority making the order shall, as soon as may be, communicate to such person the grounds on which the order has been made and shall afford him the earliest opportunity of making a representation against the order, which means, legal options to question the detention have been provided in the constitution.

Statement 3 – incorrect

- Section 32 (1) of the Prevention Of Terrorism Act (POTA) 2002 stated that "Notwithstanding anything in the Code 12 or in the Indian Evidence Act, 1872 (1 of 1872), but subject to the provisions of this section, a confession made by a person before a police officer not lower in rank than a Superintendent of Police,

shall be admissible in the trial of such person.”

78. (d)

- Somalia faces catastrophic hunger, with the country devastated by the extreme drought in the Horn of Africa.
- A total of 6.5 million people face acute food insecurity amid the driest conditions in 40 years, following five consecutive failed rainy seasons. Drought is compounding the impacts of other recurrent climate shocks, persistent insecurity and instability. A total of 1.84 million children under five years face acute malnutrition. A total of 478,000 of these face severe malnutrition and may be at risk of dying unless they receive immediate treatment. Huge numbers of people have been forced to leave their homes, with over 1.5 million drought-driven displacements since the start of the climate crisis.

79. (c)

Statement 1 – correct

- Biological Diversity Act of 2002 – It states that every local body in the State shall establish a Biodiversity Management Committee (BMC) within its area of jurisdiction for the purpose of promoting biological diversity conservation, sustainable use, and documentation.
- Nagoya Protocol – It is an international agreement on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits arising from their Utilisation to the Convention on Biological Diversity aims to equitably and

fairly share the benefits resulting from the use of genetic resources.

Statement 2 – correct

- The Biological Diversity Act gives BMCs the independent authority to charge those who collect biological resources within their territorial jurisdiction by way of collection fees. The ability of BMCs to collect fees will allow them to develop their own financial resources that they can use to carry out the objectives of the Act.

80. (a)

Statement 1 - incorrect

- Article 55(2)(a) and 52(2)(c) limits the electoral college to only the elected members of the legislatures of the state and the parliament of India.

Statement 2 and 3 are both incorrect but Statement 4 is correct

- The value of the vote of an MP in a presidential election is based on the number of elected members in legislative assemblies of states and union territories, including Delhi, Puducherry and Jammu and Kashmir. If the number of elected Assembly seats increased, the value of vote of each MLA of that state will decrease.
- The value of vote of each MLA of Madhya Pradesh is 131 which is less than that of Kerala where it is 152.
- The value of vote of each MLA of Puducherry (16) is higher than that of Arunachal Pradesh (8) because the ratio of total population to total number of elective seats in Puducherry is greater as compared to Arunachal Pradesh.

PRESIDENTIAL ELECTION, 2022

STATEMENT OF VALUE OF VOTES OF ELECTED MEMBERS
OF THE STATE LEGISLATIVE ASSEMBLIES AND
BOTH HOUSES OF PARLIAMENT AS PER
PROVISIONS OF ARTICLE 55(2) OF THE CONSTITUTION OF INDIA

SL. No.	NAME OF STATE/UT	NUMBER OF ASSEMBLY SEATS (ELECTIVE)	POPULATION (1971 CENSUS)	VALUE OF VOTE OF EACH M.L.A.	TOTAL VALUE OF VOTES FOR THE STATE/UT
(1)	(2)	(3)	(4)	(5)	(6)
1.	ANDHRA PRADESH	175	27800586	159	159 X 175 = 27825
2.	ARUNACHAL PRADESH	60	467511	8	008 X 060 = 480
3.	ASSAM	126	14625152	116	116 X 126 = 14616
4.	BIHAR	243	42126236	173	173 X 243 = 42039
5.	CHHATTISGARH	90	11637494	129	129 X 090 = 11610
6.	GOA	40	795120	20	020 X 040 = 800
7.	GUJARAT	182	26697475	147	147 X 182 = 26754
8.	HARYANA	90	10036808	112	112 X 090 = 10080
9.	HIMACHAL PRADESH	68	3460434	51	051 X 068 = 3468
10.	JHARKHAND	81	14227133	176	176 X 081 = 14256
11.	KARNATAKA	224	29299014	131	131 X 224 = 29344
12.	KERALA	140	21347375	152	152 X 140 = 21280
13.	MADHYA PRADESH	230	30016625	131	131 X 230 = 30130
14.	MAHARASHTRA	288	50412235	175	175 X 288 = 50400
15.	MANIPUR	60	1072753	18	018 X 060 = 1080
16.	MEGHALAYA	60	1011699	17	017 X 060 = 1020
17.	MIZORAM	40	332390	8	008 X 040 = 320
18.	NAGALAND	60	516449	9	009 X 060 = 540
19.	ODISHA	147	21944615	149	149 X 147 = 21903
20.	PUNJAB	117	13551060	116	116 X 117 = 13572
21.	RAJASTHAN	200	25765806	129	129 X 200 = 25800
22.	SIKKIM	32	209843	7	007 X 032 = 224
23.	TAMIL NADU	234	41199168	176	176 X 234 = 41184
24.	TELANGANA	119	15702122	132	132 X 119 = 15708
25.	TRIPURA	60	1556342	26	026 X 060 = 1560
26.	UTTARAKHAND	70	4491239	64	064 X 070 = 4480
27.	UTTAR PRADESH	403	83849905	208	208 X 403 = 83824
28.	WEST BENGAL	294	44312011	151	151 X 294 = 44394
29.	NCT OF DELHI	70	4065698	58	058 X 070 = 4060
30.	UT OF PUDUCHERRY	30	471707	16	016 X 030 = 480
	TOTAL	4033	543002005		= 543231

81. (a)

- A.H. Longhurst, Walter Elliot, Alexander Rea, James Burgess, Robert Sewell and many others conducted systematic and careful excavations at Bhattiprolu, Ghantasala, Amaravati etc. and exposed relic caskets which created much curiosity among Indian scholars about various aspects of these valuable reliquaries.

82. (b)

First site – incorrect

- Besnagar (near Vidisha, Madhya Pradesh) contains some of the earliest known writings of Vasudeva-Krishna devotion and early Vaishnavism and is considered the first archaeological evidence of its existence.

Second site – correct

- Bhaja Caves - belongs to the Early Buddhist schools in Maharashtra.

Third site – correct

- Sittanavasal Cave, Tamil Nadu - 2nd-century Jain cave complex.

83. (a)

- In 2015, the Government of India decided to designate 7th August every year as the National Handloom Day.
- The first National Handloom Day was inaugurated on 7 August 2015, by Prime Minister Narendra Modi in Chennai. On this day, we honour our handloom-weaving community and highlight the contribution of this sector in the socio-economic development of our country.
- The Swadeshi Movement which was launched on 7th August, 1905 had encouraged indigenous industries and in particular handloom weavers. In 2015, the Government of India decided to designate 7th August every year, as the National Handloom Day.

84. (d)

Statement 1 – incorrect

- The flag code states that the tricolour can be of nine standard dimensions — 6300 × 4200, 3600 × 2400, 2700 × 1800, 1800 × 1200, 1350 × 900, 900 × 600, 450 × 300, 225 × 150 and 150 × 100 (all sizes in mm).
- Flags of 450 x 300 mm size should be used on VVIP flights, 225 × 150 mm on cars and all table flags should be 150 × 100 mm in size.

Statement 2 – correct

- Tricolour should be rectangular in shape and the length-to-width ratio should always be 3:2.
- The national flag should always be made of hand-spun and hand-woven wool or cotton or silk khadi bunting

85. (c)

Statement 1 – correct

- Constitution Day, also known as 'Samvidhan Divas', is celebrated in our

country on 26th November every year to commemorate the adoption of the Constitution of India and to promote Constitution values among citizens. So, Statement-I is correct.

Statement 2 - incorrect.

- On 26th November 1949, the Constituent Assembly of India adopted the Constitution of India, which came into effect from 26th January 1950.

86. (c)

- Switzerland is one of the largest exporters of gold in the world. However, it is not among the top 5 countries in terms of gold reserves.

87. (c)

- The EU-US Trade and Technology Council serves as a forum for the United States and European Union to coordinate approaches to key global trade, economic, and technology issues and to deepen transatlantic trade and economic relations based on these shared values.

88. (d)

Statement 1 - incorrect

- India's share in global exports for merchandise was 1.7 % and in global imports was 2.6 %.
- For the service sector, India's share in global exports was 3.5 % and imports was 3.2 %.

Statement 2 - correct.

- Production-linked Incentive (PLI) schemes are a cornerstone of the government's push for achieving an Atmanirbhar Bharat. The objective is to make domestic manufacturing globally competitive and to create global champions in manufacturing. The strategy behind the scheme is to offer companies incentives for incremental sales from products manufactured in India over the base year.

89. (a)

- The Stability and Growth Pact (SGP) is a set of rules designed to ensure that countries in the European Union pursue sound public finances and coordinate their fiscal policies

90. (d)

Statement 1 - incorrect.

- It was adopted at an intergovernmental conference on migration in Marrakesh, Morocco, on 10 December 2018. The pact was agreed by all 193 members, except the United States.
- But at the ceremony to adopt the text on 10 December, only 164 countries formally adopted it.

Statement 2 - incorrect.

- The global compact is non-legally binding.

Statement 3 - incorrect

Objective

- Strengthening evidence-based and human rights-based policy-making and public discourse on migration.
- Minimising the adverse drivers of migration, including combating poverty and discrimination and addressing climate and disaster-related displacement;
- Ensuring migrants' rights to information and to a legal identity;
- to assist nation states to frame well-managed migration policies.
- to strengthen regular migration pathways and protect human rights of migrants.

91. (b)

Statement 1 - incorrect

- Home Guards are raised under the Home Guards Act and Rules of the States/Union Territories.

Statement 2 - correct

- Role of Home Guards is to serve as an auxiliary Force to the police in maintenance of internal security situations, help the community in any kind of emergency such as an air-raid, fire, cyclone, earthquake, epidemic etc.,

Statement 3 - correct

- Some states (Rajasthan) have raised battalions with the name of Border Wing Home Guard to prevent infiltration on the international border.

92. (b)

Pair 1 – correct

- Official Secrets Act: Unauthorised use of uniforms, falsification of reports, forgery, personation, and false documents

Pair 2 - incorrect

- Official Secrets Act: No person in the vicinity of any prohibited place shall obstruct, knowingly mislead, or otherwise interfere with or impede, any police officer, or any member of engaged guard, sentry, patrol, or other similar duty in relation to the prohibited place.

Pair 3 – correct

- The Arms (Amendment) Act, 2019 ensures that those using firearms in a rash or negligent manner in celebratory gunfire, endangering human life or personal safety of others, shall be punishable with an imprisonment to two years or with fine which may extend to Rs one lakh or with both.

93. (d)

- North Kivu and Ituri : Conflict in Democratic Republic of Congo
- Nagorno - Karabakh : War between Armenia and Azerbaijan
- Kherson and Zaporizhzhia : Attack sites in Ukraine

94. (c)

Statement 1 - correct.

- Countries like Qatar, Bahrain and Oman, established connections with Israel in the 1990s after the Palestine Liberation Organization (PLO) and Israel signed the Oslo Accords.

Statement 2 - incorrect

- The Arab Peace Initiative is a comprehensive peace plan which was proposed in 2002 by then Crown Prince Abdullah of Saudi Arabia. The Initiative calls for an end to the conflict between Israel and the Palestinians and the normalisation of relations between Israel and the entire Arab world, in exchange for an Israeli withdrawal from the areas gained by Israel during the 1967 Six Day War and a “just settlement” to the issue of Palestinian refugees.
- The Israeli government rejected the initiative immediately, calling it a “non-starter,” though the Quartet on the Middle East endorsed the Initiative in 2003.

95. (b)

- **Major Dhyan Chand Khel Ratna Award** : For most spectacular and outstanding performance by a sportsperson over a period of the last four years.
- **Arjuna Award** : It is officially known as Arjuna Awards for Outstanding Performance in Sports and Games and is the second-highest sporting honour of India.
- **Dronacharya Award** : To honour eminent coaches who have successfully trained sportspersons or teams.
- **Rashtriya Khel Protsahan Puraskar** : The award recognizes the “involvement of corporates, voluntary organisations, and sports control boards, in the promotion and development of sports in the country” over the previous three years.

96. (b)

- 44th Chess Olympiad , Chennai - It was the first time that the Chess Olympiad was held in India.
- The Official Mascot of 44th Chess Olympiad is ‘Thambi’.
- 1st place in the Open section: Hamilton-Russel Cup.
- 1st place in the Women’s section: Vera Menchik Cup.

97. (d)

- Donbas: Ukraine
- Kachin: Myanmar
- Tigray: Ethiopia

98. (d)

- Mali, Chad, Guinea, Sudan and Burkina Faso are five nations that have recently experienced military coups. They form a broken line that stretches across the wide bulge of Africa, from Guinea on the west coast to Sudan in the east.

99. (c)

- The primary focus for adoption of green hydrogen is likely to be oil refineries, fertilisers and chemical industry.

100. (c)

- The G20 group of 19 countries and the EU was established in 1999 as a platform for Finance Ministers and Central Bank Governors to discuss international economic and financial issues.
- Together, the G20 countries account for almost two-thirds of the global population, 75% of global trade, and 85% of the world’s GDP.
- India is pitching its digital infrastructure at G20 as an open-access platform that can aid in improving development outcomes.

