

2023

UPSC

CIVIL SERVICES EXAMINATION (PRELIMS)

PAPER

1



General Instructions

1. This Test Booklet contains **100** items (questions). Each item comprises four responses (answers). You will select the response which you want to mark on the Answer Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
2. You have to mark all your responses **ONLY** on the separate OMR Sheet provided.
3. All items carry equal marks.
4. **Penalty for wrong answers:**
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **one-third (0.33)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above to that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be no penalty for that question.

1. In which one of the following regions was Dhanyakataka, which flourished as prominent Buddhist centre under the Mahasanghikas, located?

- (a) Andhra (b) Gandhara
(c) Kalinga (d) Magadha

2. 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

3. 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

4. Which one of the following explains the practice of Vattakirutal' 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 starving himself to death

5. Consider the following dynasties:

1. Hoysala
2. Gahadavala
3. Kakatiya
4. Yadava

How many of the above dynasties established their kingdoms in early eighth century AD?

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

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

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

- How many of the above pairs are correctly matched?
- (a) Only one (b) Only two
(c) Only three (d) All four
7. "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
8. Who among the following rulers of Vijayanagara Empire constructed a large dam across Tungabhadra River and a canal-cum-aqueduct several kilometres long from the river to the capital city?
(a) Devaraya I (b) Mallikarjuna
(c) Vira Vijaya (d) Virupaksha
9. Who among the following rulers of medieval Gujarat surrendered Diu to Portuguese?
(a) Ahmad Shah (b) Mahmud Begarha
(c) Bahadur Shah (d) Muhammad Shah
10. 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
11. 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
12. 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
13. 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.
14. In India, which one of the following Constitutional Amendments was widely believed to be enacted to overcome the judicial interpretations of the Fundamental Rights?
(a) 1st Amendment
(b) 42nd Amendment
(c) 44th Amendment
(d) 86th Amendment
15. Consider the following organizations/bodies in India:
1. The National Commission for Backward Classes
2. The National Human Rights Commission
3. The National Law Commission
4. The National Consumer Disputes Redressal Commission
How many of the above are constitutional bodies?
(a) Only one (b) Only two
(c) Only three (d) All four
16. Consider the following statements:
1. 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.
2. 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.
3. 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?
(a) Only one (b) Only two
(c) All three (d) None
17. With reference to Finance Bill and Money Bill in the Indian Parliament, consider the following statements:
1. When the Lok Sabha transmits Finance Bill to the Rajya Sabha, it can amend or reject the Bill.
2. When the Lok Sabha transmits Money Bill to the Rajya Sabha, it cannot amend

or reject the Bill, it can only make recommendations.

3. 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?

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

18. Consider the following statements:
Once the Central Government notifies an area as a 'Community Reserve'

1. the Chief Wildlife Warden of the State becomes the governing authority of such forest
2. hunting is not allowed in such area
3. people of such area are allowed to collect non-timber forest produce
4. people of such area are allowed traditional agricultural practices

How many of the above statements are correct?

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

19. With reference to 'Scheduled Areas' in India, consider the following statements:

1. Within a State, the notification of an area as Scheduled Area takes place through an Order of the President.
2. 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

20. 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

21. 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

22. 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

23. '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

24. 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

25. 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

26. Consider the following statements:

1. Some mushrooms have medicinal properties.
2. Some mushrooms have psycho-active 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

27. 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

28. 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 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

29. 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

30. 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

31. 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

32. 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

33. 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

34. 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

35. 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

36. 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

37. 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
38. Which one of the following is a part of the Congo Basin?
(a) Cameroon (b) Nigeria
(c) South Sudan (d) Uganda
39. Consider the following statements:
1. Amarkantak Hills are at the confluence of Vindhya and Sahyadri Ranges.
2. Biligirirangan Hills constitute the easternmost part of Satpura Range.
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
40. 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
41. 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
42. Consider the following statements:
Statement-I: In the post-pandemic recent past, many Central Banks worldwide had carried out interest rate hikes.
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
43. Consider the following statements:
Statement-1: 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-1 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
44. 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
45. Consider the following markets:
1. Government Bond Market
2. Call Money Market
3. Treasury Bill Market
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

46. 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

47. 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

48. 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

49. 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

50. 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 Infrastructure and Innovation (S3i) initiative focus for its investments?

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

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

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

How many of the above statements are correct?

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

52. 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

53. 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.	Nagorno-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

54. 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 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 incorrect is but Statement-II is correct

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

	List I	List II
1.	Major Dhyan Chand Khel Ratna Award	For the most spectacular and outstanding performance by a sportsperson over period of last four years
2.	Arjuna Award	For the lifetime by achievement a sportsperson
3.	Dronacharya Award	To honour eminent coaches who have successfully trained sportspersons or teams
4.	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

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

1. It was the first time that Chess Olympiad was held in India.

2. 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

57. 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

58. In the recent years Chad, Guinea, Mali and Sudan caught the 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

59. 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

60. Consider the following statements about G-20:

1. The G-20 group was originally established as a 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

61. 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

62. 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

63. 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

64. 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 x 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

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

Statement-1: 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

66. 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

67. 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?

- (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

68. Consider the following statements:
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?

- (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

69. Consider the following statements:
The 'Stability and Growth Pact' of the European Union is a treaty that

- 1. limits the levels of the budgetary deficit of the countries of the European Union
- 2. makes the countries of the European Union to share their infrastructure facilities
- 3. enables the countries of the European Union to share their technologies

How many of the above statements are correct?

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

70. Consider the following statements:

- 1. 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)'.
- 2. The objectives and commitments stated in the GCM are binding on the UN member countries.
- 3. The GCM addresses internal migration or internally displaced people also in its objectives and commitments.

How many of the above statements are correct?

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

71. 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

72. 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.

73. 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

74. 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-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

75. 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

76. **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
77. **'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
78. **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 released by various industries and pumping it into abandoned subterranean mines in the form of carbonated waters
- 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
79. **'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 animals
 - (d) Sending drones to inaccessible areas to collect plant and animal samples from land surfaces and water bodies
80. **'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
81. **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
82. **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
83. **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
84. **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

85. **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

86. **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

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

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

88. **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

89. **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

90. **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

91. **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 ` 15 crore and ` 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

92. **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.

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

93. **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

94. Consider the following statements:

1. The Self-Help (SHG) programme was originally initiated Group by the 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

95. 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

96. Consider the following statements:

Statement-I: According to the United Nations' 'World Water Development Report, 2022', India extracts more than a 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

97. 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

98. 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

99. 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

100. 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

OMR SHEET

Darken the circle for each question.

Q.No.	Response
1.	(a) (b) (c) (d)
2.	(a) (b) (c) (d)
3.	(a) (b) (c) (d)
4.	(a) (b) (c) (d)
5.	(a) (b) (c) (d)
6.	(a) (b) (c) (d)
7.	(a) (b) (c) (d)
8.	(a) (b) (c) (d)
9.	(a) (b) (c) (d)
10.	(a) (b) (c) (d)
11.	(a) (b) (c) (d)
12.	(a) (b) (c) (d)
13.	(a) (b) (c) (d)
14.	(a) (b) (c) (d)
15.	(a) (b) (c) (d)
16.	(a) (b) (c) (d)
17.	(a) (b) (c) (d)
18.	(a) (b) (c) (d)
19.	(a) (b) (c) (d)
20.	(a) (b) (c) (d)
21.	(a) (b) (c) (d)
22.	(a) (b) (c) (d)
23.	(a) (b) (c) (d)
24.	(a) (b) (c) (d)
25.	(a) (b) (c) (d)

Q.No.	Response
26.	(a) (b) (c) (d)
27.	(a) (b) (c) (d)
28.	(a) (b) (c) (d)
29.	(a) (b) (c) (d)
30.	(a) (b) (c) (d)
31.	(a) (b) (c) (d)
32.	(a) (b) (c) (d)
33.	(a) (b) (c) (d)
34.	(a) (b) (c) (d)
35.	(a) (b) (c) (d)
36.	(a) (b) (c) (d)
37.	(a) (b) (c) (d)
38.	(a) (b) (c) (d)
39.	(a) (b) (c) (d)
40.	(a) (b) (c) (d)
41.	(a) (b) (c) (d)
42.	(a) (b) (c) (d)
43.	(a) (b) (c) (d)
44.	(a) (b) (c) (d)
45.	(a) (b) (c) (d)
46.	(a) (b) (c) (d)
47.	(a) (b) (c) (d)
48.	(a) (b) (c) (d)
49.	(a) (b) (c) (d)
50.	(a) (b) (c) (d)

Q.No.	Response
51.	(a) (b) (c) (d)
52.	(a) (b) (c) (d)
53.	(a) (b) (c) (d)
54.	(a) (b) (c) (d)
55.	(a) (b) (c) (d)
56.	(a) (b) (c) (d)
57.	(a) (b) (c) (d)
58.	(a) (b) (c) (d)
59.	(a) (b) (c) (d)
60.	(a) (b) (c) (d)
61.	(a) (b) (c) (d)
62.	(a) (b) (c) (d)
63.	(a) (b) (c) (d)
64.	(a) (b) (c) (d)
65.	(a) (b) (c) (d)
66.	(a) (b) (c) (d)
67.	(a) (b) (c) (d)
68.	(a) (b) (c) (d)
69.	(a) (b) (c) (d)
70.	(a) (b) (c) (d)
71.	(a) (b) (c) (d)
72.	(a) (b) (c) (d)
73.	(a) (b) (c) (d)
74.	(a) (b) (c) (d)
75.	(a) (b) (c) (d)

Q.No.	Response
76.	(a) (b) (c) (d)
77.	(a) (b) (c) (d)
78.	(a) (b) (c) (d)
79.	(a) (b) (c) (d)
80.	(a) (b) (c) (d)
81.	(a) (b) (c) (d)
82.	(a) (b) (c) (d)
83.	(a) (b) (c) (d)
84.	(a) (b) (c) (d)
85.	(a) (b) (c) (d)
86.	(a) (b) (c) (d)
87.	(a) (b) (c) (d)
88.	(a) (b) (c) (d)
89.	(a) (b) (c) (d)
90.	(a) (b) (c) (d)
91.	(a) (b) (c) (d)
92.	(a) (b) (c) (d)
93.	(a) (b) (c) (d)
94.	(a) (b) (c) (d)
95.	(a) (b) (c) (d)
96.	(a) (b) (c) (d)
97.	(a) (b) (c) (d)
98.	(a) (b) (c) (d)
99.	(a) (b) (c) (d)
100.	(a) (b) (c) (d)

ANSWERS WITH EXPLANATION

1. **Option (a) is correct**

Explanation: Dharanikota is a village in Palnadu district of Andhra Pradesh. Its old name was Dhanyakataka, or Dhanyakatakam. Many historical sources attest that Gautama Buddha visited Andhaka country and gave his sermons. Archaeological excavations at Dharanikota revealed viharas in Dharanikota and nearby areas. It is the site of the ancient Dhanyakataka which was the capital of the Satavahana kingdom which ruled in the Deccan around the 1st to 3rd centuries A.D. It was the site of a great Buddhist Stupa built in pre-Mauryan times, ruled by Satavahana kings.

2. **Option (c) is correct**

Explanation: A stupa is a reliquary, a shrine containing the remains of a holy or sainted person and/or relics associated with them, originating in India prior to the 5th century BCE as tombs of holy men and evolving afterwards into sacred sites dedicated to the Buddha. It is a hemispherical structure, with a spire at the top, sometimes situated on a base that varies in shape and size (depending on the designated purpose of that particular stupa) surrounded by a walkway for visitors. Later, stupas were also raised to honour Buddhist arhats (saints), bodhisattvas (enlightened ones), other saintly figures, or local deities.

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

According to **A. Cunningham**, Maisey and Foucher the Stupas can be classified in to five categories

- **Relic stupas:** These are those in which the relics of Buddha and other religious persons are buried. - SANCHI.
- **Object stupas:** They are those in which the objects belonging to the Buddha or his disciples are buried. - VAISHALI .
- **Commemorative stupas:** These are those which are built to commemorate events in the life of Buddha and his disciples. - ANURADHAPURA
- **Symbolic stupas:** They are those which are built to symbolise various aspects of Buddhist theology. - LEH
- **Votive stupas:** They are constructed to commemorate visits or gain spiritual benefits. can be made from metal, stone, glass, etc

3. **Option (b) is correct**

Explanation: Poompuhar is a town in the Mayiladuthurai region in the southern Indian province of Tamil Nadu. It was a thriving old port city known as Kaveri Poompattinam and Kaveripattinam (not to be mistaken for current Kaveripattinam), which for some time filled in as the capital of the early Chola rulers in Tamilakam.

Korkai was the capital of Pandya Kingdom. This city was centre of trade and important port of early Pandya Kingdom. Earlier, it was situated on the banks of the Tamiraparani Stream and at the ocean coast, making a natural harbour. Because of extreme sedimentation, the ocean has reduced around 6 km in the past 2000 years, leaving Korkai well inland today.

Muchiri found notice in the Periplus of the Erythraean Ocean, the bardic Tamil sonnets and various old style sources. It was the significant port city of Cheras. Center of the city is arranged in the present day Kodungallur, North Paravoor region.

4. **Option (d) is correct**

Explanation: Vatakkiruttal was a Tamil ritual of fasting till death which was especially widespread during the Sangam age. It was a Tamil martial art. This was either done alone, or as a group with the supporters of the captured king. In order to save their honour, and prestige the Tamil kings were prepared to meet their death facing North ('Vatakkiruttal') and never would they turn their back in battle.

5. **Option (d) is correct**

Explanation: The Hoysala Empire was a Kannadiga power originating from the Indian subcontinent that ruled most of what is now Karnataka between the 10th and the 14th centuries.

The Kakatiya dynasty was a Telugu dynasty that ruled most of the eastern Deccan region in present-day India between the 12th and 14th centuries.

The Seuna, Sevuna, or Yadavas of Devagiri was a Medieval Indian dynasty, (12th and 13th century) which at its peak ruled a kingdom stretching from the Narmada river in the north to the Tungabhadra river in the south. The Yadava kingdom reached its peak under Simhana II, and flourished until the early 14th century, when it was annexed by the Khalji dynasty of the Delhi Sultanate in 1308 CE.

The Gahadavala dynasty was a Rajput dynasty that ruled parts of the present-day Indian states of Uttar Pradesh and Bihar, during 11th and 12th centuries.

6. **Option (b) is correct**

Explanation: Devi-Chandraguptam or Devi-Chandragupta is an Indian political drama in Sanskrit-language which is attributed to Vishakhadeva, who is generally identified with Vishakhadatta.

Hammira Mahakavya is a 15th-century Indian Sanskrit epic poem which is written by the Jain scholar Nayachandra Suri.

Milinda-panha is a Buddhist text between 100 BC and 200 AD written by Nagasena.

It consists of dialogue between the Indian Buddhist sage Nagasena, and the Indo-Greek king Menander of Bactria, who reigned in the 2nd century BC.

Nitivakyamrita was the work of Jaina writer Somadeva of tenth century A.D. He writes a treatise on niti which is called Nitivakyamrta. He quotes fragments of the metrical works on polity attributed to Atri, Angiras, Kausika, Garga, Devala, Narada, Parasara, Bhaguri, Bharadvaja, Bhrgu, Brhaspati, Sukra, Vyasa etc.

7. **Option (b) is correct**

Explanation: Jainism is an ancient Indian religion that places a strong emphasis on non-violence, compassion, and the principle of ahimsa (non-harming). One of the fundamental teachings in Jainism is the belief in the existence of souls (jivas) in all living beings, including humans, animals, and plants. However, Jain philosophy goes beyond this and extends the concept of souls to non-living entities as well, including rocks, water, and other natural objects. According to Jainism, all entities possess a soul, regardless of whether they are traditionally considered living or not.

This belief in the inherent presence of souls in various natural objects is a unique aspect of Jainism's worldview and distinguishes it from other major Indian religions such as Buddhism, Vaishnavism, and Shaivism.

8. **Option (a) is correct**

Explanation: Krishna Deva Raya was one of the most famous rulers of the Vijayanagara Empire, and he undertook numerous infrastructure projects to improve the irrigation and agricultural capabilities of his kingdom.

The credit for making the capital city of the Vijayanagara Empire one of the biggest cities in the 15th century goes to Deva Raya I. In 1410 CE he had a barrage constructed across the Tungabhadra river and commissioned a 24 km long aqueduct from the Tungabhadra river to the capital.

9. **Option (c) is correct**

Explanation: In 1535, after a long siege, Sultan Bahadur Shah was compelled to surrender the island of Diu to the Portuguese led by Nuno da Cunha. This event marked as the beginning of Portuguese control and influence in the region, particularly in the maritime trade routes of the Indian Ocean.

In 1538 Siege of Diu resulted in the permanent occupation of Diu by Portuguese which lasted till 1961.

10. **Option (d) is correct**

Explanation: The office of the Governor General of Bengal was designated as the Governor General of India through the Government of India Act of 1833. This act, was also known as the Charter Act of 1833. It was passed by the British Parliament and granted expanded powers to the Governor General of Bengal, transforming the position into the Governor General of India. Lord William Bentinck was the first Governor General of India under this new designation, serving from 1833 to 1835.

Features of Charter Act of 1833

The Governor-General of Bengal became the Governor-General of India with exclusive legislative powers. The Governor-General of India was given civil and military powers.

The presidencies of Bombay and Madras were deprived of their legislative powers.

The Government of India was created for the first time having the authority over the entire territorial area possessed by the British in India.

The members of the Governor General's council were reduced by the Pitt's India act 1784 was again increased to 4 and the fourth member had very limited powers, he was not entitled to act as a member of the council except for legislative purposes.

The Governor General Council had the authority to amend, repeal or alter any law in the entire length and breadth of India for any British, Foreigner or Indian.

The activities of East India Company as a commercial body came to an end and it purely became an administrative body.

The act attempted to introduce a system of open competition for selection in Civil Services. It stated that Indians should not be debarred from holding any place, office and employment under the company but this was nullified after opposition from the Court of Directors.

The concept of a merit based modern Civil Service in India was introduced on the recommendations of Lord Macaulay's Report in 1854.

The Act permitted the English to settle freely in India this effectively legalised British Colonisation of India.

The act provided for the mitigation of slavery in India. The slavery was abolished by British Parliament in Britain and all its possessions in 1833.

The Indian Law Commission was established in 1833 through this act and Lord Macaulay was made its first chairman. It aimed to codify all kinds of law in India.

11. Option (c) is correct

Explanation: Due process refers to just, rational and fair treatment under the regular judicial process. For instance, the accused must be given the chance to present their own defence before being sentenced. "Due Process of Law" is a doctrine that not only checks if there is a law to deprive the life and personal liberty of a person but also ensures that the law is made fair and just.

Procedure Established by Law means that a law approved by Parliament would be valid if it had followed the proper procedure. It originates from the British Constitution. The legal scope of procedure is more limited.

12. Option (a) is correct

Explanation: The Prisons of 1894 Act dealt with provisions for accommodation, food, clothing, bedding segregation, and the discipline of prisoners, including solitary confinement. It also laid down provisions for the prisoners' employment, health, and visits.

'Prisons' is a State subject under the Seventh Schedule to the Constitution of India. So, the management and administration of Prisons fall exclusively in the domain of the State Governments.

The responsibility of prison management and prisoners administration solely vested in hand with State Governments who alone are competent to make appropriate legislative provisions in this regard.

13. Option (c) is correct

Explanation: The main purpose of a constitution is to establish the framework for governance and define the structure of the government. It defines and outlines the powers and functions of various branches of government, such as the executive, legislative, and judiciary.

14. Option (a) is correct

Explanation: The main objectives of the 1st Constitutional Amendment were, accordingly to amend article 19 for the purposes indicated above and to insert provisions fully securing the constitutional validity of zamindari abolition laws in general and certain specified State Acts in particular. The opportunity has been taken to propose a few minor amendments to other articles in order to remove difficulties that may arise.

15. Option (a) is correct

Explanation: The National Commission for Backward Classes is a constitutional body under the jurisdiction of the Ministry of Social Justice and Empowerment. It is established through 102nd Amendment Act, 2018 by inserting article 338B in the Indian Constitution.

The National Human Rights Commission of India is a statutory body established in 1993. It was given a statutory basis through the Protection of Human Rights Act, 1993.

Law Commission of India is a non-statutory body and is constituted by a notification of the Government of India, Ministry of Law & Justice.

The National Consumer Disputes Redressal Commission of India is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act, 1986. It is headed by a sitting or retired judge of the Supreme Court of India.

16. Option (d) is correct

Explanation: If the election of the President of India is declared void by the Supreme Court, it does not render all acts done by the President in the performance of their duties before the date of the decision as invalid. The President's actions and decisions taken during their tenure remain valid unless specifically declared otherwise.

The election of the President follows a specific schedule and process outlined in the Constitution.

The elections for the post of the President of India cannot be postponed solely on the ground that some Legislative Assemblies have been dissolved and elections are yet to take place.

The Constitution of India does not prescribe specific time limits within which the President has to declare their assent when a bill is presented to them. The President has the power to return a bill for reconsideration, withhold their assent, or give their assent based on their discretion.

17. Option (a) is correct

Explanation: The Question asks about Finance bill and not financial bill. Finance bill is an example of money bill. It is passed during the budget for enacting tax proposals.

Statement 1 is incorrect because Rajya Sabha cannot amend or reject the finance bill but only can recommend changes which the Lok Sabha can accept or not.

Statement 2 is correct as 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 is incorrect because finance bill is a money bill and there is no provision for holding joint sitting for a money bill.

18. Option (c) is correct

Explanation: When an area is notified as a 'Community Reserve', the Chief Wildlife Warden of the State or a designated authority becomes responsible for the management and governance of the reserve.

In a Community Reserve, hunting is strictly prohibited to protect and conserve the wildlife.

Such areas are designated as conservation areas if they are uninhabited and completely owned by the Government of India but used for subsistence by communities and community areas if part of the lands are privately owned. Thus, people of such areas are allowed to collect non-timber forest produce.

Traditional agricultural practices are generally not allowed within a Community Reserve. The main focus of a Community Reserve is to conserve biodiversity and natural habitats, so restricting agricultural activities is done to protect the ecological integrity of the area.

19. Option (b) is correct

Explanation: The notification of an area as a Scheduled Area within a State is done through

a Presidential Order. The President has the authority to declare certain areas as Scheduled Areas based on the criteria specified in the Constitution.

In a Scheduled Area, the administrative units are organised from the district level to the cluster of villages in the Block. The District is the largest administrative unit, and within the District, there are smaller administrative units such as Blocks and Clusters of villages.

The Governor of the concerned State is responsible for submitting annual reports to the President of India, and not the Chief Ministers.

The Governor acts as the representative of the President in the State and is responsible for reporting on the administration and development activities in the Scheduled Areas to the President through the Union Home Ministry.

20. Option (c) is correct

Explanation: The Supreme Court has held in certain judgments that while reservation policies can be implemented under Article 16(4) to provide opportunities to backward classes, they should also be balanced with the consideration of maintaining the efficiency of administration, as stated in Article 335 of the constitution of India.

Article 335 states that the claims of the SC/ST candidates should be taken into consideration in appointments and posts under the State, but without compromising the efficiency of administration.

Article 335 does not provide a specific definition of 'efficiency of administration'. Instead, it emphasises the need to balance the claims of the Scheduled Castes and Scheduled Tribes (SC/ST) with the maintenance of efficiency in administration.

21. Option (c) is correct

Explanation: India does have significant uranium deposits, but its reliability on coal for electricity production is higher compared to uranium. Coal continues to be the primary source of energy for electricity generation in India due to its abundant availability and existing infrastructure.

Uranium is used as a fuel for nuclear power generation, the level of enrichment required for electricity production is not fixed at 60%. The enrichment level can vary depending on the type of reactor and its design. Typically, for light-water reactors, the enrichment level is around 3-5% uranium-235, not 60%

22. **Option (c) is correct**

Explanation: Marsupials, a group of mammals which is characterised by carrying their young in a pouch, are not naturally found in India. They are primarily found in Australia and surrounding regions.

While some marsupials, such as kangaroos and wallabies, are known to inhabit grassland habitats, they are not limited to montane grasslands. They can be found in a variety of habitats, including forests, woodlands, and even deserts. Their survival is not limited to areas without predators, as marsupials have evolved various adaptations to coexist with predators.

23. **Option (a) is correct**

Explanation: The 'Invasive Species Specialist Group' (ISSG), which develops the Global Invasive Species Database, belongs to the International Union for Conservation of Nature (IUCN).

The ISSG, as a specialist group within the IUCN, focuses specifically on invasive species and their impacts on biodiversity and ecosystems. It works to raise awareness, conduct research, and develop tools and resources related to invasive species management. The Global Invasive Species Database is providing valuable information on invasive species worldwide.

24. **Option (b) is correct**

Explanation:

- **Lion-tailed Macaque:** Lion-tailed Macaques (*Macaca silenus*) are diurnal primates, that means they are active during the day and rest at night. They are not generally nocturnal or most active after sunset.
- **Malabar Civet:** The Malabar Civet is a nocturnal mammal found in the Western Ghats of India. It is primarily active during the night, making it nocturnal.
- **Sambar Deer:** The Sambar Deer is a large deer species found in various habitats across India. They are generally crepuscular, which means they are most active during dawn and dusk. While they may be active during the night, they are not strictly nocturnal.

25. **Option (c) is correct**

Explanation: Honeybees are well known to perform a waggle dance as a means of communication within their colony. This dance is performed by worker bees to indicate

the direction and distance to a source of food, such as nectar or pollen. By observing the direction and intensity of the waggle dance, other worker bees can determine the location of the food source and navigate to it. This behaviour is a Unique example of how honeybees communicate and share information within their colony.

26. **Option (d) is correct**

Explanation: Some mushrooms possess bioactive compounds that exhibit medicinal properties. For ex: species like Reishi (*Ganoderma lucidum*) and Turkey Tail (*Trametes versicolor*).

Some mushrooms contain psychoactive compounds like psilocybin and psilocin, which can induce hallucinogenic effects. These are often referred to as "magic mushrooms" or "psilocybin mushrooms."

Some mushrooms contain natural insecticidal compounds that can be used as a natural alternative to the synthetic insecticides like the entomopathogenic fungus *Beauveria bassiana* is used as a biocontrol agent against insect pests.

Some mushrooms have bioluminescent properties such as the Jack-O'-Lantern mushroom (*Omphalotus olearius*), have bioluminescent properties. These mushrooms emit a faint greenish glow in the dark because of the presence of luciferin-luciferase reaction.

27. **Option (c) is correct**

Explanation: Indian squirrels, such as the Indian palm squirrel, do build nests by making burrows in the ground. They usually build nests called "dreys" in tree branches or tree hollows.

They store their food materials like nuts and seeds in the ground. They create small caches in various locations, such as tree hollows or crevices, to store their food.

Indian squirrels, including the Indian palm squirrel, are primarily herbivorous and they feed on a diet consisting mainly of plant material such as fruits, seeds, nuts, and tree bark.

28. **Option (c) is correct**

Explanation: Some microorganisms can grow in environments with temperatures above the boiling point of water and are known as "thermophilic" and can withstand and thrive in extreme heat, such as hot springs or deep-sea hydrothermal vents.

Some microorganisms can grow in environments with temperatures below the freezing point of water and are known as "psychrophiles or cryophiles". They can survive and reproduce in extremely cold conditions, such as glaciers or Arctic regions.

Some microorganisms can grow in highly acidic environments with a pH below 3 and are known as "acidophilus".

29. **Option (b) is correct**

Explanation: Orangutans are known to use tools in their natural behaviour, including making tools with sticks to scrape insects from holes in trees or logs of wood. They demonstrate unique problem-solving abilities and tool use in their foraging activities. This kind of behaviour is observed in both wild and captive orangutans and is a demonstration of their intelligence and adaptability.

30. **Option (d) is correct**

Explanation: Hydrofluorocarbons (HFCs) are used in the making of all four substances that are mentioned above:

- **Aerosols:** HFCs are commonly used as propellants in aerosol products, for ex: sprays for personal care, household cleaning, and automotive applications.
- **Foam agents:** HFCs are used as blowing agents in the production of foam materials, which includes foam insulation, foam packaging, and foam cushions.
- **Fire retardants:** HFCs are also used in fire extinguishing systems and fire retardant formulations.
- **Lubricants:** HFCs are used as lubricants, especially in the aerospace industry.

31. **Option (b) is correct**

Explanation: The main source of water is River Jhelum for Wular Lake. Wular lake also has a small island in its centre called the 'Zaina Lank'.

Krishna river does not feed the kolleru lake directly. The Krishna is the second-largest east-flowing river of the Peninsula.

The Kanwar Taal or Kabar Taal Lake or Kabartal Wetland located in Begusarai district of Bihar, India, is Asia's largest freshwater oxbow lake. The Kanwar lake draws water from the confluence of the river Gandak, the Bia and the Kareh river, and is situated near Manjhaul.

32. **Option (b) is correct**

Explanation: Kamarajar Port is located on

the Coromandel Coast about 24 km north of Chennai Port, Chennai. It is the 12th major port of India, and the first port in India which is a public company.

The mega port at Mundra is a major economic gateway that caters to the northern hinterland of India with multimodal connectivity. The deep draft, all-weather port is the largest commercial port in India with state of the art infrastructure.

Mundra Port is India's biggest commercial port by volumes. It has overtaken state-run Jawaharlal Nehru Port Trust (JNPT) to become the country's largest container gateway by handling 5.65 mn twenty-foot equivalent units in FY21.

33. **Option (b) is correct**

Explanation: Jackfruit is an evergreen tree characterised by its dense foliage and exudation of latex from above ground plant parts including fruits when injured.

Mahua tree is known as Indian Butter Tree. It is a medium to large sized deciduous tree with a large rounded crown.

Teak is a tropical hardwood tree species in the family Lamiaceae. It is large, deciduous tree that occurs in mixed hardwood forests.

34. **Option (b) is correct**

Explanation: Irrigated area accounts for nearly 48.8% of the 140 million hectare of agricultural land in India. China's irrigation cover is 41% of cultivated area, and India's irrigation cover is 48%. China's productivity in most crops is 50 - 100% which is higher than India's.

35. **Option (d) is correct**

Explanation: The Rann of Kutch was formed due to multiple instances of fluctuations in sea level and geological processes over millions of years, resulting in the deposition of salts and minerals in the region.

The Rann of Kutch is a large seasonal salt marsh located in the Thar Desert of Gujarat, India. It has a unique ecosystem featured by the vast stretches of saline marshland that gets flooded during monsoon season and dries up during rest of the year.

Bhitarkanika Mangroves, Marakkanam Salt Pans, and Naupada Swamp, are also wetland ecosystems but they don't exhibit the same characteristics because of extensive marshland resulting from repeated falls in sea level.

36. **Option (d) is correct**

Explanation: India has large resources of heavy minerals which occur mainly along coastal stretches of the country and also in inland places.

Heavy mineral sands consists of a group of seven minerals, such as, ilmenite, leucosene (brown ilmenite), rutile, zircon, sillimanite, garnet and monazite. Ilmenite (FeO.TiO_2) and rutile (TiO_2) are the two main minerals of titanium.

37. **Option (c) is correct**

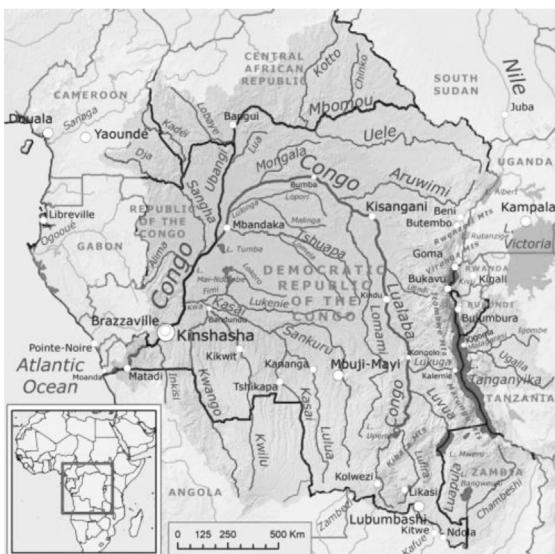
Explanation: About three-fourths of the world's cobalt, is produced by Democratic Republic of the Congo. The Democratic Republic of the Congo is the largest producer of cobalt globally. Cobalt is a metal required for the manufacture of batteries for electric motor vehicles, Cobalt is a critical component in the production of lithium-ion batteries, which are widely used in electric vehicles and various electronic devices.

38. **Option (a) is correct**

Explanation: Cameroon is a part of the Congo Basin. The Congo Basin is a vast region in Central Africa that encompasses several countries, including Cameroon. It is the world's second-largest river basin next to that of the Amazon.

Countries wholly or partially in the Congo region:

- Angola
- Gabon
- Burundi
- Cameroon
- Central African Republic
- Democratic Republic of the Congo
- Republic of the Congo
- Rwanda
- Tanzania
- Zambia



This map is not to scale and is for reference only.

Figure: Congo Basin

39. **Option (d) is correct**

Explanation: Amarkantak are at the confluence of the Vindhya and Satpura mountain ranges. Seshachalam Hills are hilly ranges which are parts of the Eastern Ghats.

The Biligirirangana Hills or Biligirirangan Hills is a hill range situated in south-western Karnataka, at its border with Tamil Nadu.

40. **Option (d) is correct**

Explanation: The East-West Corridor under the Golden Quadrilateral Project connects Silchar in Assam to Porbandar in Gujarat, and not Dibrugarh and Surat.

The Trilateral Highway connects Moreh in Manipur, India, with Mae Sot in Thailand via Myanmar, not Chiang Mai.

The Bangladesh-China-India-Myanmar Economic Corridor (BCIM EC) connects Kolkata in India with Kunming in China, not Varanasi to Kunming.

40. **Option (d) is correct**

Explanation: The East-West Corridor under the 'Golden Quadrilateral Project' a part of the National Highways Development Project (NHDP) in India, connects Silchar in Assam to Porbandar in Gujarat, and not Dibrugarh and Surat.

The Trilateral Highway connects Moreh in Manipur, with Mae Sot in Thailand via Myanmar.

The Bangladesh-China-India-Myanmar Economic Corridor (BCIM EC) connects Kolkata in India with Kunming in China with Kolkata in India, passing through Myanmar and Bangladesh.

41. **Option (d) is correct**

Explanation: In Infrastructure Investment Trusts (InvITs), both interest income and dividend income distributed to the investors are taxable. There is no exemption from tax for interest income.

InvITs are recognized as borrowers under the 'Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002'. The act mainly deals with the securitization and reconstruction of financial assets and enforcement of security interests in relation to the loans and borrowings.

42. **Option (a) is correct**

Explanation: In the post-pandemic period, as economies recover and inflationary pressures increase, some central banks had raised interest rates to manage inflation and stabilise

their economies. These hikes in interest rate are implemented as a part of monetary policy measures.

Central banks assume that they have the ability to influence and control inflation through various monetary policy tools, including interest rate adjustments. By increasing interest rates, central banks (RBI in case of India) aim to curb inflationary pressures by reducing borrowing and spending, hence addressing the rising consumer prices.

43. Option (a) is correct

Explanation: Carbon markets such as emissions trading or cap-and-trade systems, have emerged as significant tools in the fight against climate change. They provide economic incentives for reducing greenhouse gas (GHG) emissions and promoting the transition to cleaner technologies. Private sector entities in carbon markets are required to purchase/acquire emission allowances/credits to cover their emissions. The revenue generated from the sale of these allowances/credits can be used by the State for various purposes, like funding climate change mitigation and adaptation initiatives.

44. Option (a) is correct

Explanation: 'Sterilization' - An activity undertaken by the central bank (RBI in case of India) to offset the impact of its interventions in the foreign exchange market on the domestic money supply.

When the central bank intervenes in the foreign exchange (Forex) market by buying foreign currency, it increases the domestic money supply. Central bank conducts sterilisation operation to prevent the excess liquidity in the economy.

One of the methods of sterilization is 'Open Market Operations' (OMOs), particularly by the sale/purchase of government securities.

In case of intervention to buy foreign currency, the central bank can sterilize the increased money supply by selling government securities in the open market, and thus reducing the availability of money in the economy.

On the other side, if the central bank intervenes to sell foreign currency, it can sterilise the reduction in money supply by purchasing government securities.

Thus, conducting 'Open Market Operations' of settlement is considered as a part of 'sterilization' by the RBI.

45. Option (b) is correct

Explanation: In the given options, only two

of them are included in the capital markets. These are:

- **Government Bond Market:** It involves the buying & selling of government bonds, which are debt securities issued by the government to raise funds. It allows governments to borrow money from investors.
- **Stock Market:** Also called the equity market or share market, is a market where shares/ownership interests in publicly-traded companies are bought and sold. It's a crucial component of the capital market, allowing companies to raise capital through the issuance of shares and investors to trade in those shares.

The other two options are Call Money Market and Treasury Bill Market which, are part of money market rather than the capital market.

- **Call Money Market:** a segment of the money market where banks and financial institutions borrow and lend money for short durations, typically overnight.
- **Treasury bills (T-bills):** These are short-term government securities with a maturity period of less than one year. This Treasury Bill Market is a part of the money market where these T-bills are traded.

46. Option (b) is correct

Explanation: The Small Farmers, Large Field (SFLF) model is founded on the same principles of aggregation and achieving economies of scale, through strengthening backward and forward integration along with the supply chain and lowering the costs by synchronizing key agricultural operations from field preparation to harvest.

47. Option (c) is correct

Explanation: The Gond tribals of Satpura hill ranges in Madhya Pradesh traditionally grow niger (*Guizotia abyssinica*) on the top of the plateau, where water does not stagnate. But due to amarbel - a twining parasitic plant, the productivity has declined rapidly due to which assured paddy cultivation has been trending.

48. Option (c) is correct

Explanation:

Inventory: It refers to the raw materials used in production as well as the goods produced that are available for sale.

A company's inventory represents one of the most important assets. The turnover of

inventory represents one of the primary sources of revenue generation and subsequent earnings for the shareholders of the company. There are three types of inventory, which includes raw materials, work-in-progress, and finished goods. It is categorized as a current asset on a company's balance sheet.

Thus, Raw material is a tangible asset and other three are intangible.

49. Option (b) is correct

Explanation: Governance reforms and Stable governments are not considered under horizontal tax devolution criteria.

Criteria and Weights Assigned for Horizontal Devolution.

Criteria	Weight (%)
Population	15.0
Area	15.0
Forest and Ecology	10.0
Income Distance	45.0
Demographic Performance	12.5
Tax Effort	2.5
	100.0

50. Option (c) is correct

Explanation: UNOPS was founded in 1973 and became an integral part of the United Nations Development Programme (UNDP) in 1995. Since then, it has gained autonomy and financial independence. The primary goal of UNOPS is to advance sustainable methods of implementation in the fields of peacebuilding, humanitarian assistance, and development. The creation of sustainable and climate-resilient infrastructure is essential for all industries that contribute significantly to sustainable development.

- **Affordable housing:** The S3i initiative aims to invest in projects that promote affordable housing particularly in regions where there is a significant housing shortage or lack of adequate housing options.
- **Mass rapid transport:** Mass Rapid Transport is not included in the UNOPS S3i initiative.
- **Health care:** The initiative also focuses on investments in healthcare infrastructure, including the development of hospitals, clinics, and healthcare facilities, especially in underserved areas.

- **Renewable energy:** Renewable energy is another sector where the S3i initiative focuses on for its investments. It aims to support projects related to renewable energy generation, such as wind farms, solar power plants, and other sustainable energy initiatives.

51. Option (b) is correct

Explanation: In order to assist the police in controlling riots and public unrest, the "Home Guards" voluntary forces was originally established in India in December 1946.

Home Guards are raised under the Home Guards Act and Rules of the States/Union Territories (not central Government). They are recruited from amongst all classes of people and walks of life, who give their spare time to the organisation for betterment of the community.

The 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., help in maintenance of essential services, promote communal harmony and assist the administration in protecting weaker sections, participate in socio-economic and welfare activities and perform Civil Defence duties.

Fifteen Border Wing Home Guards (BWHG) Battalions have been raised in the border States viz. Punjab (6 Bns.), Rajasthan (4 Bns.), Gujarat (2 Bns.) and one each Battalion for Meghalaya, Tripura and West Bengal to serve as an auxiliary to Border Security Force for preventing infiltration on the international border/coastal areas, guarding of VA/VPs and lines of communication in vulnerable area at the time of external aggression.

52. Option (b) is correct

Explanation:

- Unauthorised people are not allowed to wear police or military uniforms, according to the Official Secrets Act of 1923. It is a terrible felony to wear military or police clothes without authorization.
- The Arms Amendment Act of 2019 outlaws celebratory gunfire that puts other people's personal safety in peril, and the Indian Evidence Act of 1872 forbids intentionally misleading or interfering with a police officer or military officer while they are performing their duty. It also forbids the use, ownership,

and sale of firearms and ammunition, as well as the occasional celebratory use of firearms.

53. **Option (d) is correct**

Explanation: North Kivu and Ituri are the Provinces of the Democratic Republic of the Congo. Humanitarian Emergency in North Kivu, Ituri and South Kivu in 2023.

The landlocked mountainous region of Nagorno-Karabakh is the subject of an unresolved dispute between Azerbaijan, in which it lies, and its ethnic Armenian majority, backed by neighbouring Armenia.

Russia carried out so-called referendums on joining Russia in the Ukrainian regions of Luhansk, Donetsk, Zaporizhzhia and Kherson – which represent 15 percent of Ukraine’s territory and are controlled by Russia.

54. **Option (c) is correct**

Explanation: A important new trend of the Middle East in the twenty-first century is the emergence of open, friendly relations between Israel and some Gulf Arab states.

Although the diplomatic agreements that the United Arab Emirates (UAE) and Bahrain signed with Israel in 2020 marked a milestone in ties, the Gulf states and Israel have long maintained channels of contact and collaboration. After Israel and the Palestine Liberation Organisation (PLO) signed the Oslo Accords in the 1990s, a number of nations in the region, including Qatar, Bahrain, and Oman, developed relations with Israel. Hence statement 1 is correct.

The Arab Peace Initiative is a comprehensive peace strategy that was put forth in 2002 by Saudi Arabia's then-Crown Prince Abdullah. In exchange for Israel's withdrawal from the territories it captured in the 1967 Six-Day War and a "just settlement" to the Palestinian refugee problem, the Initiative demands an end to the conflict between Israel and the Palestinians and normalisation of ties between Israel and the entire Arab world. The plan was approved by the Arab League in March 2002 and again in March 2007.

The Middle East Quartet had supported the plan in 2003, but it was immediately rejected by the Israeli government, which labelled it a "non-starter." Hence statement 2 is not correct.

55. **Option (b) is correct**

Explanation:

- **Major Dhyan Chand Khel Ratna Award:** For most spectacular and outstanding performance by a sports person 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.

56. **Option (b) is correct**

Explanation:

- Recently, the Prime Minister declared the 44th Chess Olympiad at JLN Indoor Stadium in Chennai. The Chess Olympiad is a prestigious competition that has been organized since 1927. It is being hosted in India for the first time and in Asia after 30 years.
- The official mascot was named "Thambi," a chess knight dressed in the traditional Tamil male attire, vetti, with a white shirt. He was depicted with folded hands, extending the Tamil greeting "Vanakkam."
- The winner in the Open section was awarded the Hamilton-Russell Cup, while the winner in the Women's section received the Vera Menchik Cup.

57. **Option (d) is correct**

Explanation:

- The Donbas is a historical, cultural, and economic region in eastern Ukraine. It comprises two heavily industrialized regions: Donetsk and Luhansk, which were occupied by Russian forces last year.
- Kachin State is the northernmost state of Myanmar. In 2022, military airstrikes reportedly killed dozens of people, including civilians, in Kachin State.
- Tigray is Ethiopia's northernmost region. The region is at the center of an ongoing

civil conflict involving ethno-regional militias, the federal government, and the Eritrean military. This conflict has attracted the concern of humanitarian groups and external actors since November 2020. In October 2022, the first formal African Union-led peace talks between an Ethiopian government team and Tigray forces took place in South Africa.

58. Option (d) is correct

Explanation:

- The governments of Mali, Chad, Guinea, Sudan and Burkina Faso have been toppled by the military leaders in the past 18 months.
- In Mali and Guinea over the past 18 months, the army has overthrown administrations.
- In Chad, where President Idriss Deby lost his life fighting insurgents on the battlefield in the north of the country, the military similarly took over last year (2021).



This map is not to scale and is for reference only.

59. Option (c) is correct

Explanation: Oil refineries, fertiliser manufacturers, and the chemical sector are likely to be the main targets for the adoption of green hydrogen. The main market potential for green hydrogen in the short- to medium-term include the oil refineries that use grey hydrogen for desulfurization, ammonia production for the fertiliser and chemicals industries, and the treatment of basic metals. In a proposed national transition to green energy, oil refineries, fertiliser industries, and steel producers may be required to fulfil a mandatory green hydrogen purchase obligation (GHPO).

60. Option (c) is correct

Explanation: In order to provide Finance Ministers and Central Bank Governors with a forum for discussing global economic and financial challenges, the G20 group of 19 nations plus the EU was founded in 1999. Together, the G20 nations make up over two-thirds of the world's population, 75% of its trade, and 85% of its gross domestic product. Hence statement 1 is correct.

At the G20, India is promoting its digital infrastructure as an open-access platform that may help to improve the results of development efforts. Hence statement 2 is correct.

61. Option (a) is correct

Explanation: The rock-cut caves, stupas, chaityas, viharas, and silamandpas of Andhra Pradesh serve as examples of Buddhist architecture. There are rock-cut caves in Guntupalli, Kapavaram, Erravaram, Gopalpatnam, and other places.

A.H. Longhurst, Walter Elliot, Alexander Rea, James Burgess, Robert Sewell, and many others carried out methodical and careful excavations at Bhattiprolu, Ghantasala, Amaravati, etc. and exposed relic caskets that sparked Indian scholars' interest in a variety of topics related to these priceless reliquaries.

62. Option (b) is correct

Explanation:

- A town called Besnagar, also called Vidisha, is situated in contemporary Madhya Pradesh. The charming Heliodorus Pillar, erected by a Greek named Heliodorus who is supposed to have converted to Hinduism and become a disciple of Lord Vishnu, is located on the outskirts of Besnagar (Vidisha). It is dedicated to the God Vishnu. The pillar is now revered as "Khamba Baba" by the villagers, and as a result, the Besnagar location is better renowned for the Vaishnavite religion than the Shaivite sect.
- In India's Bhaja Caves, you may see the best example of Buddhist cave building. It is situated close to Lonavala in Mumbai's Pune district. The Caves belong to the Hinayana Buddhism sect in Maharashtra.
- Sittanavasal is a small village in Pudukottai district of Tamil Nadu. It was a major centre of Jain influence for 1,000 years just before the Christian era.

63. **Option (a) is correct**

Explanation:

- India observes National Handloom Day on August 7 every year to remember the “Swadeshi” Movement.
- The Handloom Day and the Swadeshi Movement are closely related.

64. **Option (d) is correct**

Explanation:

Statement 1 is incorrect as The flag code states that the tricolor 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).

Statement 2 is correct as the tricolor 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, it further adds.

65. **Option (c) is correct**

Explanation:

Statement 1 is correct because On 26th November 1949, the Constituent Assembly of India adopted the Constitution of India, which came into effect from 26th January 1950”. But one of the objective of such commemoration is to to promote the constitutional values.

Statement 2 is incorrect as 26th November is the day of adoption of the constitution and not the day on which the Drafting committee had been constituted.

66. **Option (c) is correct**

Explanation: Switzerland consistently ranks as the world’s top exporter of gold in terms of value, according to a number of organisations.

The United States has the largest gold reserves, followed by Germany, according to a number of organisations.

67. **Option (c) is correct**

Explanation: The commerce and Technology Council, a strategic coordinating framework to address issues at the intersection of commerce, dependable technology, and security, was recently established by the United States of America and the European Union.

The European Union and the United States can coordinate their responses to important global trade, economic, and technological challenges in the EU-US Trade and Technology Council. This forum also helps to strengthen

transatlantic trade and economic ties based on these common ideals.

68. **Option (d) is correct**

Explanation: India wants to increase the current 2% proportion of its exports in world trade to 3% by 2027. Therefore, assertion 1 is incorrect.

Both domestic and international businesses have benefited from the PLI programme. As a result, assertion two is true.

69. **Option (a) is correct**

Explanation: All 27 of the European Union’s member states have signed the Stability and Growth Pact (SGP) in order to promote and uphold the stability of the Economic and Monetary Union (EMU). The agreement was made to guarantee that budgetary restraint would be upheld and enforced within the EMU. It addresses the EU members’ financial restraint.

70. **Option (d) is correct**

Explanation: The Global Compact for Safe, Orderly, and Regular Migration, which has 164 signatories, establishes a framework that is cooperative and not legally obligatory and builds on the pledges made by member states in the New York Declaration for Refugees and Migrants in December 2016.

It encompasses all forms of domestic migration but excludes external migration.

71. **Option (a) is correct**

Explanation: Belarus lies to the north of Ukraine, followed by Russia to the east, the Sea of Azov, the Black Sea, Moldova, Romania, Hungary, Slovakia, and Poland to the southwest.



This map is not to scale and is for reference only.

72. **Option (c) is correct**

Explanation: Earth's surface receives most of its energy in short wavelengths. The energy received by the Earth is known as incoming

solar radiation, which is commonly termed as insolation. The insolation received at the surface varies from about 320 Watts/m² in the tropics to about 70 Watts/m² at the poles. Therefore, the total amount of insolation received at the equator is roughly about five times that received at the poles. Insolation is generally referred to as shortwave radiation, as it falls primarily within the ultraviolet and visible portions of the electromagnetic spectrum.

Radiation emitted from Earth is called long-wave radiation, which falls within the infrared portion of the spectrum.

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

Water vapor is the most abundant greenhouse gas in the Earth's atmosphere, and it has strong absorption properties in the infrared portion of the electromagnetic spectrum. As infrared radiation passes through the atmosphere, water vapor molecules can absorb and re-emit a significant portion of the longwave radiation. Infrared waves are not part of the visible spectrum of electromagnetic waves in solar radiation. Infrared waves have wavelengths longer than approximately 700 nanometers. Most of the radiation emitted by a moderately heated surface is infrared.

73. Option (d) is correct

Explanation: Contrary to popular belief, tropical rainforests often have less fertile soil than other types of soil. This is due to the fact that, despite the fact that these woods are lush and home to a wide variety of plant life, the soil in these ecosystems can become somewhat deficient in nutrients due to the heavy rainfall that is typical of them.

Statement-II: It is true that tropical rainforests' high temperatures and humidity speed up the decomposition of decaying organic matter. This process restores nutrients to the ecosystem quickly, where plants and other species swiftly absorb them, adding to the variety and richness of life in these woods.

74. Option (a) is correct

Explanation: Both Statement-I and Statement-II are correct, and Statement-II is the correct explanation for Statement-I

Statement-I: The temperature difference between continents and oceans is bigger in

the summer than in the winter, according to statement I. This assertion is true. Due to variations in their heat capacity, terrestrial surfaces heat up more quickly than ocean surfaces throughout the summer. Warmer land temperatures result from this, resulting in a bigger temperature difference between continents and oceans.

Statement-II: This assertion is true: The surface of the sea has a higher specific heat than the land. The specific heat capacity of water is greater than that of land. A substance's specific heat is the quantity of heat needed to raise its temperature by a specific amount. Water has a higher specific heat capacity than land, which allows it to absorb and store more heat energy. Because of this, water takes longer to heat up and cool down than land does, which adds to the difference in temperature between continents and seas.

Statement-II explains why land surfaces warm up faster in summer, resulting in a greater temperature disparity between continents and seas. The higher specific heat capacity of water is the cause of this.

75. Option (c) is correct

Explanation: P waves, also known as primary waves, are the quickest seismic wave type and the first to reach seismographs during an earthquake, hence the term "Primary". The slower S waves (Secondary waves), which arrive after the P waves.

P waves are compressional or longitudinal waves, which means that they cause the ground to vibrate in the same direction as the wave. The ground particles vibrate perpendicular to the wave's propagation direction (up and down or side to side) when S waves, which are shear or transverse waves, are present.

76. Option (d) is correct

Explanation: None

- In India, a few coal-based thermal power plants do employ seawater for cooling.
- 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. Scarce water is already hampering electricity generation in this region.
- In addition to those operated by the government or public sector, India also has privately owned coal-based thermal

power facilities. For example Mundra Thermal Power Station is located at Mundra in Kutch district in the Indian state of Gujarat. The power plant is one of the coal-based power plants of Adani Power. Source of water for the power plant is sea water from the Gulf of Kutch.

77. **Option (a) is correct**

Explanation: Controlling the viral diseases spread by mosquitoes:

To stop the spread of mosquito-transmitted viral infections like dengue, Zika, and chikungunya, the “Wolbachia method” is a biological control strategy. The bacterium Wolbachia is naturally present in many insects, including mosquitoes. Wolbachia-carrying male mosquitoes that are released mate with wild female mosquitoes, but the resulting eggs do not hatch or develop normally, gradually lowering the insect population. This approach has been used as a technique for the control of diseases carried by mosquitoes since it has demonstrated positive results in limiting the transmission of viral diseases by mosquitoes.

78. **Option (c) is correct**

Explanation:

- **Broadly spreading finely ground basalt rock on farmland:** This improved weathering technique involves widely dispersing finely ground basalt rock on farmland to speed up the pace at which carbon dioxide is removed from the atmosphere by chemical reactions. Basalt stores carbon in a solid form by reacting with carbon dioxide to generate carbonate minerals.
- **Adding lime to the oceans to improve their alkalinity:** This practise, also known as ocean alkalinity augmentation, is putting lime or other alkaline materials into the oceans to raise their alkalinity. This procedure increases the ocean’s ability to operate as a carbon sink by encouraging the ocean to absorb carbon dioxide from the atmosphere.
- **Pumping carbonated water into defunct underground mines after capturing carbon dioxide generated by numerous industries:** This operation is known as carbon capture and storage (CCS), which entails removing carbon dioxide from industrial processes and burying it underground in suitable geological formations, such as deep saline aquifers or depleted oil and gas reserves.

All three of the aforementioned activities are frequently thought of and debated as viable strategies for carbon capture and sequestration to slow down climate change by lowering atmospheric carbon dioxide concentrations.

79. **Option (a) is correct**

Explanation: “Aerial metagenomics” refers to the study of genetic material, which involves gathering DNA samples from the air in a habitat all at once. Aerial metagenomics includes collecting and analysing genetic material, such DNA, that is present in the atmosphere. It tries to identify and investigate the microbial communities—including bacteria, viruses, fungus, and other microorganisms—that are present in the air. Without taking direct samples from individual organisms, this method enables researchers to examine the genetic diversity and distribution of airborne creatures.

80. **Option (a) is correct**

Explanation: In molecular genetics and genomics, especially, microsatellite DNA is used in genetic analysis. Small DNA sequences called microsatellites are made up of units that repeat. They are also referred to as simple sequence repeats (SSRs) or short tandem repeats (STRs). The number of times these repeating units—which are typically 1-6 base pairs long—are repeated in tandem varies from person to person. Due to the considerable variability of microsatellite DNA, the number of repetitions at a particular microsatellite locus may differ significantly between individuals in a community.

By examining microsatellite DNA, researchers can examine the genetic makeup, population trends, and historical ties of various animal species. In population genetics, conservation genetics, and phylogenetic study, microsatellite markers are extremely useful.

81. **Option (b) is correct**

Explanation:

- The State Health Departments’ Janani Suraksha Yojana (JSY) does not expressly promote safe motherhood. It is a centrally funded programme that the Indian government has put in place with the goal of enhancing maternal and newborn health outcomes all over the nation. The programme is not only implemented at the state level by the State Health Departments, despite their involvement.

- Its goal is to lower maternal and newborn mortality among pregnant, low-income women: Reducing maternity and newborn death rates, especially for women from economically disadvantaged households, is one of the Janani Suraksha Yojana's main goals. The programme offers financial aid and incentives to entice underprivileged expectant mothers to give birth in hospitals, boosting access to expert care during childbirth and lowering the hazards of home deliveries.
- It encourages institutional delivery among low-income expectant mothers: Promoting institutional deliveries among pregnant poor women is one of the key objectives of the Janani Suraksha Yojana. The programme offers financial assistance to expectant mothers who decide to give birth at a government hospital, a private hospital that has received accreditation, or a public health centre.
- Its goal includes offering public health services to unwell infants up to the age of one: The provision of public health facilities to ill newborns up to one year of age is not expressly addressed by the Janani Suraksha Yojana, which primarily focuses on maternal and neonatal health during childbirth. The provision of healthcare facilities and services for infants with illnesses may be the focus of other government efforts or programmes, but it is not a specific goal of JSY.

82. Option (c) is correct

Explanation: Interventions under Anaemia Mukta Bharat are:

Prophylactic Iron and Folic Acid supplementation Deworming Intensified year round Behaviour Change Communication Campaign (Solid Body, Smart Mind) focusing on four key behaviours –

- Improving compliance to Iron Folic Acid supplementation and deworming.
- (b) Appropriate infant and young child feeding practices.
- Increase in intake of iron-rich food through diet diversity/quantity/frequency and/or fortified foods with focus on harnessing locally available resources.
- Ensuring delayed cord clamping after delivery (by 3 minutes) in health facilities.
- Testing and treatment of anemia, using digital methods and point of care

treatment, with special focus on pregnant women and school-going adolescents.

- Mandatory provision of Iron and Folic Acid fortified foods in government funded public health programmes.
- Intensifying awareness, screening and treatment of non-nutritional causes of anemia in endemic pockets, with special focus on malaria, haemoglobinopathies and fluorosis.
- Hence, only statement 1 is wrong and statement 2, 3 & 4 is correct.

83. Option (a) is correct

Explanation:

- **Components for cars and aeroplanes are made with the help of carbon fibres:** This assertion is true. Because of its exceptional strength-to-weight ratio, carbon fibres are frequently employed in several sectors, including the automotive and aerospace industries. Due to their small weight and high strength, they are utilised in the production of body panels, frames, wings, and other structural parts for cars and aeroplanes.
- Carbon fibres can be recycled, albeit it is a more involved process than it is for other materials. Carbon fibre composites can be recycled by using techniques like pyrolysis or solvent-based processes to dissolve the resin matrix and recover the carbon fibres. Reusing the priceless carbon fibre material through recycling carbon fibres helps to reduce waste and environmental damage.

84. Option (c) is correct

Explanation:

- **When a car crash or collision is detected, the airbags nearly immediately deploy:** Vehicles have accelerometers to detect rapid changes in acceleration, like those that occur in collisions or car crashes. The airbags can be deployed to protect the occupants when the accelerometer detects a sudden deceleration or force of impact. Therefore, this activity needs an accelerometer's functionality.
- When a laptop is discovered in an unintentional free fall towards the ground, the hard disc is immediately turned off. Laptops frequently have accelerometers to track changes in orientation or motion. The laptop is falling freely, and the accelerometer may detect this sudden downward motion

or acceleration. The accelerometer can activate a safety feature such as instantly turning off the hard drive to prevent damage after sensing a fall. Therefore, this activity needs an accelerometer's functionality.

- **Identification of the smartphone's tilt, which causes the display to rotate between portrait and landscape mode:** Smartphones frequently have accelerometers to track orientation changes. The smartphone's accelerometer can recognise a tilt as it occurs and automatically rotate the display between portrait and landscape modes. Therefore, this activity needs an accelerometer's functionality.

85. Option (b) is correct

Explanation:

- It is true that uneaten fish food is removed by biofilters during waste treatment. By treating effluent, biofilters are essential components of recirculating aquaculture systems (RAS). Unconsumed fish food and other organic waste build up in the system. Fish feed that hasn't been consumed and other organic debris are broken down and removed by biofilters, which helps to preserve the purity of the water.
- This claim is true; biofilters turn the ammonia in fish waste into nitrate. One of the main jobs of biofilters in RAS is to use the nitrification process to change poisonous ammonia, which fish expel as waste, into less damaging nitrate. Beneficial microorganisms in the biofilters convert ammonia to less hazardous forms like nitrate and nitrite for fish.
- This statement is not correct. Biofilters primarily focus on waste treatment and nitrification processes in RAS, and they do not directly increase phosphorus as a nutrient for fish. The role of biofilters is to remove organic waste and convert ammonia, not to increase phosphorus levels thus statement 3 is incorrect.

86. Option (a) is correct

Explanation:

- Cepheids are not enormous gas and dust clouds. Instead, they are a particular class of variable star that experiences cyclical

variations in brightness. Cepheids are employed in astronomy as significant distance markers.

- Nebulae are not periodically brightening and dimming stars. Nebulae are enormous clouds of plasma, gas, and dust in outer space. They could be areas of star development or the remains of stars that have burst.
- Pulsars, which are neutron stars created when huge stars exhaust their fuel and crash, This summary is accurate. Pulsars are rotating neutron stars with intense magnetic fields that produce electromagnetic radiation beams. They are created when huge stars explode as supernovae and collide with one another as a result of their own gravitational pull.

87. Option (d) is correct

Explanation: Japan has its own satellite navigation system, known as the Quasi-Zenith Satellite System (QZSS), among the available options. In Japan and the Asia-Oceania region, the QZSS satellite-based positioning system is intended to supplement and improve the Global Positioning System (GPS). It offers better time, navigation, and positioning services. Australia lacks a satellite navigation system of its own. For positioning and navigation, it makes use of the Global Positioning System (GPS) and other satellite navigation systems. Additionally, Canada lacks a satellite navigation system of its own. The GPS system is largely used by it for locating and navigation. Israel lacks a satellite navigation system of its own. The GPS system is primarily used for location and navigation.

88. Option (d) is correct

Explanation:

- During their entire flight, ballistic missiles are not jet-propelled at subsonic speeds. During their trajectory of flight, ballistic missiles are propelled by rocket engines, reaching supersonic or hypersonic speeds. They travel along a parabolic path, mostly relying on initial propulsion to get where they are going.
- Agni-V is not a medium-range supersonic cruise missile; it is an intercontinental ballistic missile (ICBM). Although BrahMos is a supersonic cruise missile, it lacks intercontinental range and solid fuel.

89. **Option (c) is correct**

Explanation:

- 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.
- It is true that mercury contamination is caused by thermal power plants powered by coal. Mercury contamination is largely a result of coal burning in thermal power plants. Mercury that is found in coal is released into the atmosphere as mercury emissions when it is burned. There are concerns to the environment and human health if these emissions are later dumped in soil and water.
- It is true that there is no established safe level of exposure to mercury. Mercury is a poisonous heavy metal that can impair people's health, especially the neurological system. There is no established safe level of mercury exposure, not even at low exposure levels. In the body, it can build up over time and result in a variety of health difficulties, such as neurological illnesses and developmental problems, particularly in sensitive groups like infants and children.

90. **Option (c) is correct**

Explanation:

- It is true that green hydrogen can be used directly as fuel for internal combustion. Green hydrogen can be used as a fuel for internal combustion engines because it is created utilising sustainable energy sources. In cars and other uses, it can be utilised as a direct replacement for fossil fuels.
- Natural gas can be mixed with green hydrogen to create a fuel that can be used to generate heat or electricity. Green hydrogen can be utilised as a fuel for the production of heat or electricity by blending it in specific amounts with natural gas. This mixture, also known as "hydrogen-enriched natural gas," can aid

in lowering the carbon emissions brought on by the combustion of natural gas.

- Vehicles using hydrogen fuel cells can be powered by green hydrogen: This is a true statement. Fuel cells may generate power using green hydrogen. Vehicles powered by hydrogen fuel cells can replace traditional internal combustion engines, lowering greenhouse gas emissions.

91. **Option (d) is correct**

Explanation: According to the MSME classification requirements, medium-sized businesses must have an annual sales of no more than \$100 billion and an investment in plant and mechanical equipment of no more than \$20 billion.

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.

92. **Option (c) is correct**

Explanation:

- Central Bank Digital Currencies (CBDCs) are digital currencies issued by central banks that can be used as an alternative to conventional payment methods like the US dollar or SWIFT (Society for Worldwide Interbank Financial Telecommunication). CBDCs are central bank-issued digital tokens that represent the fiat money of a nation. Indirect channels of payment, such as the US currency or SWIFT, can potentially be avoided by making payments directly in CBDCs.
- CBDCs have the potential to be programmable currencies, enabling the addition of restrictions to their use. A CBDC may, for instance, be programmed with an expiration date or time limit, which would encourage rapid use of the money and boost economic activity.

93. **Option (d) is correct**

Explanation: Beta is a measure of a stock's historical volatility in comparison with that of a market index such as the S&P 500. Stocks with a beta above 1 tend to be more volatile than their index, while stocks with lower betas tend to be less volatile.

94. **Option (b) is correct**

Explanation:

- The State Bank of India did not start the Self-Help Group (SHG) movement in India. Non-governmental organisations (NGOs) and other grassroots organisations founded it to meet the financial requirements of the socially and economically disadvantaged groups.
- It is true that in a SHG, each group member is accountable for whatever loans they take out on their own. In a typical SHG model, everyone in the group shares responsibility for the debts that individual group members have taken out. Loans are made to members out of a pooled fund that members contribute to. The group members work together to guarantee that any individual member's loans are repaid.
- In India, SHGs are actively supported by Regional Rural Banks (RRBs) and Scheduled Commercial Banks (SCBs). They offer SHGs financial support, including banking and credit services. In order to support the members financially and promote the SHG movement, these banks frequently work with NGOs and government organisations.

95. **Option (b) is correct**

Explanation:

Statement-I: The public health care system in India primarily prioritises curative care and places less emphasis on preventative, promotive, and rehabilitative care. This assertion is true. India's public health care system has historically placed a strong emphasis on hospitals and specialised medical care, with a greater emphasis on curative care.

Statement-II: The States are principally in charge of planning health services under India's decentralised system for providing medical care. The federal government offers direction, regulatory frameworks, and financial support to the states, but it is up to the states to plan, administer, and deliver healthcare services in accordance with local priorities and needs. Despite the fact that both statements are true, Statement-II does not adequately explain Statement-I.

96. **Option (c) is correct**

Explanation:

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

accounts for more than 25% of the annual worldwide groundwater withdrawal, is one of the nations with considerable groundwater extraction.

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

97. **Option (a) is correct**

Explanation: According to Article 355 of the Constitution, the Union has a responsibility to defend every State from external invasion and internal unrest.

Statement 2 is incorrect: A person imprisoned for preventative detention does not have a right to legal representation under the Indian Constitution. According to Article 22 of the Constitution, everyone, even those held in preventive custody, has the right to legal representation. This right is a fundamental one.

Statement 3 is incorrect: The 2002 Prevention of Terrorism Act is no longer in effect. The Unlawful Activities (Prevention) Act, 1967 took its place. Confessions are admissible as evidence under the terms of the Indian Evidence Act; the law relating to terrorism does not, however, expressly forbid them.

98. **Option (d) is correct**

Explanation: Following five consecutive failed rainy seasons, 6.5 million people in Somalia are suffering from severe food insecurity in the midst of the driest conditions in 40 years. The effects of other recurring climate shocks, ongoing insecurity, and ongoing instability are being exacerbated by drought. Acute malnutrition affects 1.84 million children under the age of five.

99. **Option (c) is correct**

Explanation:

- The Biodiversity Management Committees in India are essential to achieving the Nagoya Protocol's goals: This assertion is true. The Nagoya Protocol is a global accord created by the Convention on Biological Diversity (CBD) that strives to guarantee the equitable and fair distribution of gains from the use of genetic resources. The Biodiversity Management Committees (BMCs) in India are essential to the local implementation of the Nagoya Protocol. They are in charge of fostering the preservation, ethical sharing, and

sustainable use of benefits derived from biological resources under their control.

- The Biodiversity Management Committees play a significant role in deciding on access and benefit sharing, including the authority to impose collection charges on the use of biological resources under their purview: This assertion is also true. In India, the access and benefit.

100. Option (a) is corrects

Explanation: 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.

Value of the vote of an MLA


$$= \frac{\text{Total population of state}}{\text{Total number of elected member in the state legislative assembly}} \times \frac{1}{1000}$$

Value of the vote of an MP

$$= \frac{\text{Total value of votes of all MLAs of all states}}{\text{Total member of elected members of Parliament}}$$


Statement 4 is correct: Based on the state's population and the number of elected seats in the legislative assembly, the value of each Member of Legislative Assembly (MLA) vote in the presidential election is calculated. Because of this calculation, the value of each MLA's vote may differ from state to state.

- **Statement 1:** The members of the Electoral College for the election of the President of India are not members of either the House of Parliament or the Legislative Assemblies of the States. The Electoral College is comprised only of individuals who have been elected to serve in both Houses of Congress and state legislatures.
- **Statement 2:** The number of elective assembly seats does not immediately relate to the weight of each MLA's vote. The number of elected seats in the assembly and the state's population are used to calculate it.
- **Statement 3:** The value of each MLA's vote is not directly correlated with the size of the state's population. Based on the formula described above, it is determined.



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