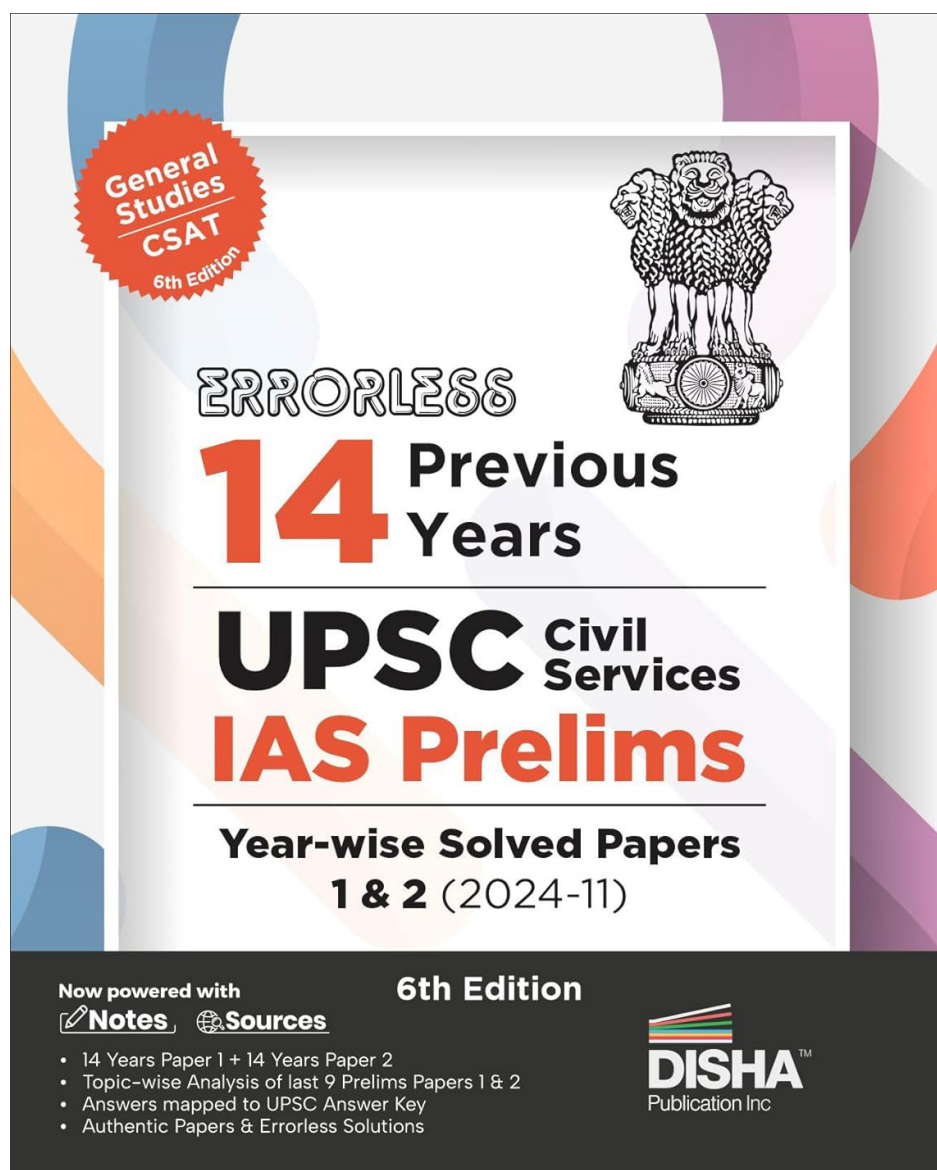


IAS Prelims Solved Paper-1 2023

This sample is taken from the “**Errorless 14 Previous Years UPSC Civil Services IAS Prelims Year-wise Solved Papers 1 & 2 (2024 - 11) 6th Edition | General Studies & Aptitude (CSAT) Original PYQs Papers**”



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IAS PRELIMS SOLVED PAPER-1 2023

Maximum Marks: 200

Total Limit: 2 Hr.

1. Consider the following statements :
 1. Jhelum River passes through Wular Lake.
 2. Krishna River directly feeds Kolleru Lake.
 3. Meandering of Gandak River formed Kanwar Lake.How many of the statements given above are correct?
 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
2. Consider the following pairs :

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

How many of the above pairs are correctly matched?
 - (a) Only one pair
 - (b) Only two pairs
 - (c) All three pairs
 - (d) None of the pairs
3. Consider the following trees :
 1. Jackfruit (*Artocarpus heterophyllus*)
 2. Mahua (*Madhuca indica*)
 3. Teak (*Tectona grandis*)How many of the above are deciduous trees?
 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
4. Consider the following statements :
 1. India has more arable area than China.
 2. The proportion of irrigated area is more in India as compared to China.
 3. The average productivity per hectare in Indian agriculture is higher than that in China.How many of the above statements are correct?
 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
5. Which one of the following is the best example of repeated falls in sea level, giving rise to present-day extensive marshland?
 - (a) Bhitarkanika Mangroves
 - (b) Marakkanam Salt Pans
 - (c) Naupada Swamp
 - (d) Rann of Kutch
6. Ilmenite and rutile, abundantly available in certain coastal tracts of India, are rich sources of which one of the following?
 - (a) Aluminium
 - (b) Copper
 - (c) Iron
 - (d) Titanium
7. About three-fourths of world's cobalt, a metal required for the manufacture of batteries for electric motor vehicles, is produced by
 - (a) Argentina
 - (b) Botswana
 - (c) the Democratic Republic of the Congo
 - (d) Kazakhstan
8. Which one of the following is a part of the Congo Basin?
 - (a) Cameroon
 - (b) Nigeria
 - (c) South Sudan
 - (d) Uganda
9. 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 GhatsHow many of the statements given above are correct?
 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
10. With reference to India's projects on connectivity, consider the following statements :
 1. East-West Corridor under Golden Quadrilateral Project connects Dibrugarh and Surat.
 2. Trilateral Highway connects Moreh in Manipur and Chiang Mai in Thailand via Myanmar.
 3. Bangladesh-China -India -Myanmar Economic Corridor connects Varanasi in Uttar Pradesh with Kunming in China.How many of the above statements are correct?
 - (a) Only one
 - (b) Only two
 - (c) All three
 - (d) None
11. Consider the following statements :

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

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

Which one of the following is correct in respect of the above statements?
 - (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 - (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 - (c) Statement-I is correct but Statement-II is incorrect
 - (d) Statement-I is incorrect but Statement-II is correct
12. Consider the following statements :

Statement-I: Marsupials are not naturally found in India.

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

Which one of the following is correct in respect of the above statements?
 - (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 - (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 - (c) Statement-I is correct but Statement-II is incorrect
 - (d) Statement-I is incorrect but Statement-II is correct

13. Invasive Species Specialist Group' (that develops Global Invasive Species Database) belongs to which one of the following organizations?
 (a) The International Union for Conservation of Nature
 (b) The United Nations Environment Programme
 (c) The United Nations World Commission for Environment and Development
 (d) The World Wide Fund for Nature
14. Consider the following fauna:
 1. Lion-tailed Macaque
 2. Malabar Civet
 3. Sambar Deer
 How many of the above are generally nocturnal or most active after sunset?
 (a) Only one (b) Only two
 (c) All three (d) None
15. Which of the following organisms perform waggle dance for others of their kin to indicate the direction and the distance to a source of their food?
 (a) Butterflies (b) Dragonflies
 (c) Honeybees (d) Wasps
16. Consider the following statements :
 1. Some mushrooms have medicinal properties.
 2. Some mushrooms have psychoactive properties.
 3. Some mushrooms have insecticidal properties.
 4. Some mushrooms have bioluminescent properties.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) Only three (d) All four
17. Consider the following statements regarding the Indian squirrels:
 1. They build nests by making burrows in the ground.
 2. They store their food materials like nuts and seeds in the ground.
 3. They are omnivorous.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
18. Consider the following statements :
 1. Some microorganisms can grow in environments with temperature above the boiling point of water.
 2. Some microorganisms can grow in environments with temperature below the freezing point of water.
 3. Some microorganisms can grow in highly acidic environment with a pH below 3.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
19. Which one of the following makes a tool with a stick to scrape insects from a hole in a tree or a log of wood?
 (a) Fishing cat (b) Orangutan
 (c) Otter (d) Sloth bear
20. Consider the following:
 1. Aerosols 2. Foam agents
 3. Fire retardants 4. Lubricants
 In the making of how many of the above are hydrofluorocarbons used?
 (a) Only one (b) Only two
 (c) Only three (d) All four
21. Consider the following statements :
Statement-I : Interest income from the deposits in Infrastructure Investment Trusts (InvITs) distributed to their investors is exempted from tax, but the dividend is taxable.
Statement-II : InvITs are recognized as borrowers under the 'Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002'.
 Which one of the following is correct in respect of the above statements?
 (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 (c) Statement-I is correct but Statement-II is incorrect
 (d) Statement-I is incorrect but Statement-II is correct
22. Consider the following statements :
Statement-I : In the post-pandemic recent past, many Central Banks worldwide had carried out interest rate hikes.
Statement-II : Central Banks generally assume that they have the ability to counteract the rising consumer prices via monetary policy means.
 Which one of the following is correct in respect of the above statements?
 (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 (c) Statement-I is correct but Statement-II is incorrect
 (d) Statement-I is incorrect but Statement-II is correct
23. Consider the following statements :
Statement-I : Carbon markets are likely to be one of the most widespread tools in the fight against climate change.
Statement-II : Carbon markets transfer resources from the private sector to the State.
 Which one of the following is correct in respect of the above statements?
 (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 (c) Statement-I is correct but Statement-II is incorrect
 (d) Statement-I is incorrect but Statement-II is correct
24. Which one of the following activities of the Reserve Bank of India is considered to be part of 'sterilization'?
 (a) Conducting "Open Market Operations"
 (b) Oversight of settlement and payment systems
 (c) Debt and cash management for the Central and State Governments
 (d) Regulating the functions of Non-banking Financial Institutions
25. Consider the following markets :
 1. Government Bond Market
 2. Call Money Market
 3. Treasury Bill 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
26. Which one of the following best describes the concept of 'Small Farmer Large Field'.
- 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
 - Many marginal farmers in an area organize themselves into groups and synchronize and harmonize selected agricultural operations
 - 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
 - A company extends loans, technical knowledge and material inputs to a number of small farmers in an area so that they produce the agricultural commodity required by the company for its manufacturing process and commercial production
27. Consider the following statements :
- The Government of India provides Minimum Support Price for niger (*Guizotia abyssinica*) seeds.
 - Niger is cultivated as a Kharif crop.
 - Some tribal people in India use niger seed oil for cooking.
- How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
28. Consider the investments in the following assets:
- Brand recognition
 - Inventory
 - Intellectual property
 - Mailing list of clients
- How many of the above are considered intangible investments?
 (a) Only one (b) Only two
 (c) Only three (d) All four
29. Consider the following :
- Demographic performance
 - Forest and ecology
 - Governance reforms
 - Stable government
 - Tax and fiscal efforts
- For the horizontal tax devolution, the Fifteenth Finance Commission used how many of the above as criteria other than population area and income distance?
 (a) Only two (b) Only three
 (c) Only four (d) All five
30. Consider the following infrastructure sectors :
- Affordable housing
 - Mass rapid transport
 - Health care
 - Renewable energy
- On how many of the above does UNOPS Sustainable Investments in Infrastructure and Innovation (S3i) initiative focus for its investments?
- Only one (b) Only two
 - Only three (d) All four
31. In essence, what does 'Due Process of Law' mean?
 (a) The principle of natural justice
 (b) The procedure established by law
 (c) Fair application of law
 (d) Equality before law
32. Consider the following statements :
- Statement-I :** In India, prisons are managed by State Governments with their own rules and regulations for the day-to-day administration of prisons.
- Statement-II:** In India, prisons are governed by the Prisons Act, 1894 which expressly kept the subject of prisons in the control of Provincial Governments.
- Which one of the following is correct in respect of the above statements?
 (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 (c) Statement-I is correct but Statement-II is incorrect
 (d) Statement-I is incorrect but Statement-II is correct
33. Which one of the following statements best reflects the Chief purpose of the 'Constitution' of a country?
 (a) It determines the objective for the making of necessary laws.
 (b) It enables the creation of political offices and a government.
 (c) It defines and limits the powers of government.
 (d) It secures social justice, social equality and social security
34. In India, which one of the following Constitutional Amendments was widely believed to be enacted to overcome the judicial interpretations of Fundamental Rights?
 (a) 1st Amendment (b) 42nd Amendment
 (c) 44th Amendment (d) 86th Amendment
35. Consider the following organizations/bodies in India:
- The National Commission for Backward Classes
 - The National Human Rights Commission
 - The National Law Commission
 - The National Consumer Disputes Redressal Commission
- How many of the above are constitutional bodies?
 (a) Only one (b) Only two
 (c) Only three (d) All four
36. Consider the following statements :
- If the election of the President of India is declared void by the Supreme Court of India, all acts done by him/her in the performance of duties of his/her office of President before the date of decision becomes invalid.
 - Election for the post of the President of India can be postponed on the ground that some Legislative Assemblies have been dissolved and elections are yet to take place.
 - When a Bill is presented to the President of India, the Constitution prescribes time limits within which he/she has to declare his/ her assent.

- How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
37. 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
38. 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
39. 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
40. Consider the following statements :
- Statement-I:** The Supreme Court of India has held in some judgements that the reservation policies made under Article 16(4) of the Constitution of India would be limited by Article 335 for maintenance of efficiency of administration.
- Statement-II :** Article 335 of the Constitution of India defines the term 'efficiency of administration'.
- Which one of the following is correct with respect to the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
 - (b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
 - (c) Statement-I is correct but Statement-II is incorrect
 - (d) Statement-I is incorrect but Statement-II is correct
41. In which one of the following regions was Dhanyakataka, which flourished as a prominent Buddhist centre under the Mahasanghikas, located?
 (a) Andhra (b) Gandhara
 (c) Kalinga (d) Magadha
42. With reference to ancient India, consider the following statements:
1. The concept of Stupa is Buddhist in origin.
 2. Stupa was generally a repository of relics.
 3. Stupa was a votive and commemorative structure in Buddhist tradition.
- How many of the statements given above are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
43. With reference to ancient South India, Korkai, Poompuhar and Muchiri were well known as
 (a) capital cities
 (b) ports
 (c) centres of iron-and-steel making
 (d) shrines of Jain Tirthankaras
44. Which one of the following explains the practice of Vattakirutal' as mentioned in Sangam poems?
 (a) Kings employing women bodyguards
 (b) Learned persons assembling in royal courts to discuss religious and philosophical matters
 (c) Young girls keeping watch over agricultural fields and driving away birds and animals
 (d) A king defeated in a battle committing ritual suicide by starving himself to death
45. Consider the following dynasties :
- | | |
|-------------|---------------|
| 1. Hoysala | 2. Gahadavala |
| 3. Kakatiya | 4. Yadava |
- How many of the above dynasties established their kingdoms in early eighth century AD?
 (a) Only one (b) Only two
 (c) Only three (d) None
46. With reference to ancient Indian History, consider the following pairs :
- | Literary work | Author |
|----------------------|--------------------|
| 1. Devichandragupta | : Bilhana |
| 2. Hammira-Mahakavya | : Nayachandra Suri |
| 3. Milinda-Panha | : Ngarjuna |
| 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
47. "Souls are not only the property of animal and plant life, but also of rocks, running water and many other natural objects not looked on as living by other religious sects."
- The above statement reflects one of the core beliefs of which one of the following religious sects of ancient India?
 (a) Buddhism (b) Jainism
 (c) Shaivism (d) Vaishnavism
48. Who among the following rulers of 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

49. Who among the following rulers of medieval Gujarat surrendered Diu to Portuguese?
 (a) Ahmad Shah (b) Mahmud Begarha
 (c) Bahadur Shah (d) Muhammad Shah
50. By which one of the following Acts was the Governor General of Bengal designated as the Governor General of India?
 (a) The Regulating Act
 (b) The Pitt's India Act
 (c) The Charter Act of 1793
 (d) The Charter Act of 1833
51. Consider the following statements in relation to Janani Suraksha Yojna:
 1. It is safe motherhood intervention of the State Health Departments.
 2. Its objective is to reduce maternal and neonatal mortality among poor pregnant women.
 3. It aims to promote institutional delivery among poor pregnant women.
 4. Its objective includes providing public health facilities to sick infants up to one year of age.
 How many of the statements given above are correct?
 (a) Only one (b) Only two
 (c) Only three (d) All four
52. Consider the following statements in the context of interventions being undertaken under Anaemia Mukta Bharat Strategy:
 1. It provides prophylactic calcium supplementation for pre-school children, adolescents and pregnant women.
 2. It runs a campaign for delayed cord clamping at the time of child-birth.
 3. It provides for periodic deworming to children and adolescents.
 4. It addresses non-nutritional causes of anaemia in endemic pockets with special focus on malaria, hemoglobinopathies and fluorosis.
 How many of the statements given above are correct?
 (a) Only one (b) Only two
 (c) Only three (d) All four
53. Consider the following statements:
 1. Carbon fibres are used in the manufacture of the components used in automobiles and aircrafts.
 2. Carbon fibres once used cannot be recycled.
 Which of the statements given above is/are correct?
 (a) 1 only (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2
54. Consider the following actions:
 1. Detection of car crash/collision which results in the deployment of airbags almost instantaneously
 2. Detection of accidental free fall of a laptop towards the ground which results in the immediate turning off of the hard drive.
 3. Detection of the tilt of the smart phone which results in the rotation of display between portrait and landscape mode
 In how many of the above actions is the function of accelerometer required?
 (a) Only one (b) Only two
 (c) All three (d) None
55. With reference to the role of biofilters in Recirculating Aquaculture System, consider the following statements:
 1. Biofilters provide waste treatment by removing uneaten fish feed.
 2. Biofilters convert ammonia present in fish waste to nitrate.
 3. Biofilters increase phosphorus as nutrient for fish in water.
 How many of the statements given above are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
56. Consider the following pairs:
- | Objects in space | Description |
|------------------|---|
| 1. Cepheids | : Giant clouds of dust and gas in space |
| 2. Nebulae | : Stars which brighten and dim periodically |
| 3. Pulsars | : Neutron stars that are formed when massive stars run out of fuel and collapse |
- How many of the above pairs are correctly matched?
 (a) Only one (b) Only two
 (c) All three (d) None
57. Which one of the following countries has its own Satellite Navigation System?
 (a) Australia (b) Canada
 (c) Israel (d) Japan
58. Consider the following statements:
 1. Ballistic missiles are jet-propelled at subsonic speeds throughout their flights, while cruise missiles are rocket-powered only in the initial phase of flight.
 2. Agni-V is a medium-range supersonic cruise missile, while BrahMos is a solidfuelled intercontinental ballistic missile.
 Which of the statements given above is/are correct?
 (a) 1 only (b) 2 only
 (c) Both 1 and 2 (d) Neither 1 nor 2
59. Consider the following statements regarding mercury pollution:
 1. Gold mining activity is a source of mercury pollution in the world.
 2. Coal-based thermal power plants cause mercury pollution.
 3. There is no known safe level of exposure to mercury.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None
60. With reference to green hydrogen, consider the following statements:
 1. It can be used directly as a fuel for internal combustion.
 2. It can be blended with natural gas and used as fuel for heat or power generation.
 3. It can be used in the hydrogen fuel cell to run vehicles.
 How many of the above statements are correct?
 (a) Only one (b) Only two
 (c) All three (d) None

61. Consider the following countries:
- | | |
|--------------|-------------------|
| 1. Bulgaria | 2. Czech Republic |
| 3. Hungary | 4. Latvia |
| 5. Lithuania | 6. Romania |
- How many of the above-mentioned countries share a land border with Ukraine?
- (a) Only two (b) Only three
(c) Only four (d) Only five
62. With reference to the Earth's atmosphere, which one of the following statements is correct?
- (a) The total amount of insolation received at the equator is roughly about 10 times of that received at the poles.
(b) Infrared rays constitute roughly two-thirds of insolation.
(c) Infrared waves are largely absorbed by water vapour that is concentrated in the lower atmosphere.
(d) Infrared waves are a part of visible spectrum of electromagnetic waves of solar radiation.
63. Consider the following statements:
- Statement-I:** The soil in tropical rain forests is rich in nutrients.
Statement-II: The high temperature and moisture of tropical rain forests cause dead organic matter in the soil to decompose quickly.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct
64. Consider the following statements:
- Statement-I:** The temperature contrast between continents and oceans is greater during summer than in winter.
Statement-II: The specific heat of water is more than that of land surface.
- Which one of the following is correct in respect of the above statements?
- (a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct and Statement-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 a seismograph, P waves are recorded earlier than S waves.
 - In P waves, the individual particles vibrate to and from in the direction of waves propagation whereas in S waves, the particles vibrate up and down at right angles to the direction of wave propagation.
- Which of the statements given above is/are correct?
- (a) 1 only
(b) 2 only
(c) Both 1 and 2
(d) Neither 1 nor 2
66. With reference to coal-based thermal power plants in India, consider the following statements:
- None of them uses seawater.
 - None of them is set up in water-stressed district.
 - None of them is privately owned.
- How many of the above statements are correct?
- (a) Only one (b) Only two
(c) All three (d) None
67. 'Wolbachia method' is sometimes talked about with reference to which one of the following?
- (a) Controlling the viral diseases spread by mosquitoes
(b) Converting crop residues into packing material
(c) Producing biodegradable plastics
(d) Producing biochar from thermochemical conversion of biomass
68. Consider the following activities:
- Spreading finely ground basalt rock on farmlands extensively
 - Increasing the alkalinity of oceans by adding lime
 - 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
69. 'Aerial metagenomics' best refers to which one of the following situations?
- (a) Collecting DNA samples from air in a habitat at one go
(b) Understanding the genetic makeup of avian species of a habitat
(c) Using air-borne devices to collect blood samples from moving animals
(d) Sending drones to inaccessible areas to collect plant and animal samples from land surfaces and water bodies
70. 'Microsatellite DNA' is used in the case of which one of the following?
- (a) Studying the evolutionary relationships among various species of fauna
(b) Stimulating 'stem cells' to transform into diverse functional tissues
(c) Promoting clonal propagation of horticultural plants
(d) Assessing the efficacy of drugs by conducting series of drug trials in a population
71. Consider the following statements with reference to India:
- According to the 'Micro, Small and Medium Enterprises Development (MSMED) Act, 2006', the 'medium enterprises' are those with investments in plant and machinery between Rs. 15 crore and Rs. 25 crore.
 - 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
72. With reference to the Central Bank digital currencies, consider the following statements:
- 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 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
73. In the context of finance, the term 'beta' refers to
(a) the process of simultaneous buying and selling of an asset from different platforms
(b) an investment strategy of a portfolio manager to balance risk versus reward
(c) a type of systemic risk that arises where perfect hedging is not possible
(d) a numeric value that measures the fluctuations of a stock to changes in the overall stock market
74. Consider the following statements:
1. The Self-Help Group (SHG) Programme was originally initiated by the State Bank of India by providing microcredit to the financial deprived.
2. In an SHG, all members of a group take responsibility for a loan that an individual member takes.
3. The Regional Rural Banks and Scheduled Commercial Banks support SHGs.
How many of the above statements are correct?
(a) Only one (b) Only two
(c) All three (d) None
75. Consider the following statements:
Statement-I: India's public sector health care system largely focuses on curative care with limited preventive, promotive and rehabilitative care.
Statement-II: Under India's decentralized approach to health care delivery, the States are primarily responsible for organizing health services.
Which one of the following is correct in respect of the above statements?
(a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct
76. Consider the following statements:
Statement-I: According to the United Nations' 'World Water Development Report, 2022', India extracts more than a quarter of world's groundwater withdrawal each year.
Statement-II: India needs to extract more than a quarter of the world's groundwater each year to satisfy the drinking water and sanitation needs of almost 18% of world's population living in its territory.
Which one of the following is correct in respect of the above statements?
(a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
(b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
(c) Statement-I is correct but Statement-II is incorrect
(d) Statement-I is incorrect but Statement-II is correct
77. Consider the following statements:
1. According to the Constitution of India, the Central Government has a duty to protect States from internal disturbances.
2. The Constitution of India exempts the States from providing legal counsel to person being held for preventive detention
3. According to the Prevention of Terrorism Act, 2002, confession of the accused before the police cannot be used as evidence.
How many of the above statements are correct?
(a) Only one (b) Only two
(c) All three (d) None
78. Which of the following countries has been suffering from decades of civil strife and food shortages and was in news in the recent past for its very severe famine?
(a) Angola (b) Costa Rica
(c) Ecuador (d) Somalia
79. Consider the following statements:
1. In India, the Biodiversity Management Committees are key to the realization of the objectives of the Nagoya Protocol.
2. The Biodiversity Management Committees have important functions in determining access and benefit sharing, including the power to levy collection fees on the access of biological resources within its jurisdiction.
Which of the statements given above is/are correct?
(a) 1 only (b) 2 only
(c) Both 1 and 2 (d) Neither 1 nor 2
80. Consider the following statements in respect of election to the President of India:
1. The members nominated to either House of the Parliament or the Legislative Assemblies of States are also eligible to be included in the Electoral College.
2. Higher the number of Elective Assembly seats, higher is the value of vote of each MLA of that State.
3. The value of vote of each MLA of Madhya Pradesh is greater than that of Kerala.
4. The value of vote of each MLA of Puducherry is higher than that of Arunachal Pradesh because the ratio of total population to total number of elective seats in Puducherry is greater as compared to Arunachal Pradesh.
How many of the above statements are correct?
(a) Only one (b) Only two
(c) Only three (d) All four
81. With reference to the Indian History, Alexander Rea, A.H. Longhurst, Robert Sewell, James Burgess and Walter Elliot were associated with
(a) archaeological excavations
(b) establishment of English Press in Colonial India
(c) establishment of Churches in Princely States
(d) construction of railways in Colonial India
82. Consider the following pairs:

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

How many of the above pairs are correctly matched?

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

83. Consider the following statements:

Statement-I: 7th August is declared as the National Handloom day.

Statement-II: It was in 1905 that the Swadeshi movement was launched on the same day.

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

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

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

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

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

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

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

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

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

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

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

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

86. Consider the following statements:

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

Statement-II: Switzerland has the second largest gold reserves in the world.

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

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

87. Consider the following statements:

Statement-I: Recently, the United States of America (USA) and the European Union (EU) have launched the 'Trade and Technology Council'.

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

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

- (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

88. Consider the following statements:

Statement-I: India accounts for 3.2% of global exports 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

89. Consider the following statements:

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

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

How many of the above statements are correct?

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

90. 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

91. 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

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

+Action

The Act under which it is covered

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

How many of the above pairs are correctly matched?

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

93. Consider the following pairs:

Regions often mentioned in news

Reason for being in news

1. North Kivu and Ituri : War between Armenia and Azerbaijan
2. 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

94. Consider the following statements:

Statement-I: Israel has established diplomatic relations with some Arab States.

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

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

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

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

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 achievement by 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

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

1. It was 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

97. Consider the following pairs:

Area of conflict mentioned in news

Country where it is located

1. Donbas : Syria
2. Kachin : Ethiopia
3. Tigray : North Yemen

How many of the above pairs are correctly matched?

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

98. In the recent years Chad, Guinea, Mali and Sudan caught the international attention for which one of the following reasons common to all of them?
- Discovery of rich deposits of rare earth elements
 - Establishment of Chinese military bases
 - Southward expansion of Sahara Desert
 - Successful coups
99. Consider the following heavy industries:
- Fertilizer plants
 - Oil refineries
 - Steel plants
- Green hydrogen is expected to play a significant role in decarbonizing how many of the above industries?
- Only one
 - Only two
 - All three
 - None
100. Consider the following statements about G-20:
- 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.
 - Digital public infrastructure is one of India's G-20 priorities.
- Which of the statements given above is/are correct?
- 1 only
 - 2 only
 - Both 1 and 2
 - Neither 1 nor 2

ANSWERS AND EXPLANATIONS

- (b) The correct answer is (c) All three. The Jhelum River passes through Wular Lake in Jammu and Kashmir, India. The Krishna River directly feeds Kolleru Lake in Andhra Pradesh, India. The meandering of the Gandak River formed Kanwar Lake in Bihar, India.
- (b) The correct answer is: (b) Only two pairs. Kamarajar Port is indeed the first major port in India registered as a company, and Mundra Port is the largest privately owned port in India. However, Visakhapatnam Port is not the largest container port in India. That title belongs to Jawaharlal Nehru Port Trust (JNPT). Therefore, only two of the three pairs are correctly matched.
- (b) The correct answer is (b), only two.
Jackfruit is an evergreen tree, meaning it does not lose its leaves seasonally. Mahua and Teak are both deciduous trees, meaning they shed their leaves during certain seasons, typically in the dry season. So, two out of the three trees listed are deciduous.
SOURCE: Ref: NCERT Class11
- (a) But UPSC has given the answer as (a) in its official answer key declared.
Statement 1 is correct: India has the largest cropland (or arable land) of any country at 179.8 million hectares, compared with 167.8 million in the US and **165.2 million in China**. Russia ranks fourth, while South Asia and Europe are labelled "agricultural capitals of the world," as cropland accounts for more than 80% of some countries in those regions. In comparison, only about a fifth of land in US and China is dedicated to growing food.
Statement 2 is correct: China's irrigation cover is 41% of cultivated area, and **India's is 48%**. Hence, India has high proportion of irrigated area.
Statement 3 is incorrect: As a result of this irrigation, China's total sown area is 166 m ha compared to India's gross cropped area of 198 m ha. Even with much lesser land under cultivation, China produces agricultural output valued at \$1,367 billion—more than three times that of India's \$407 billion. **China's productivity in most crops is 50 to 100% higher than India's.**
- (d) The correct answer is (d). The best example of repeated falls in sea level, giving rise to present-day extensive marshland is Rann of Kutch. The Rann of Kutch is a large salt marsh located in the Thar Desert in the western part of India. It is known for its vast expanse of marshy salt flats and mudflats.
- (d) The correct answer is (d) Titanium.
Ilmenite and rutile are both titanium-bearing minerals. Ilmenite is the most common titanium-bearing mineral, and it is found in many different types of rocks. Rutile is a less common titanium-bearing mineral, but it is found in some high-grade metamorphic rocks.
- (c) The correct answer is (c) the Democratic Republic of the Congo.
The Democratic Republic of the Congo is the world's largest producer of cobalt, a metal that is used in the manufacture of batteries for electric vehicles. In 2020, the Democratic Republic of the Congo produced 140,000 metric tons of cobalt, which accounted for about 70% of global production.
- (a) The correct answer is (a) Cameroon.
The Congo Basin is a large drainage basin in Central Africa. It covers an area of about 3.7 million square kilometers, making it the second largest drainage basin in the world after the Amazon Basin. The Congo Basin is home to the Congo River, the second longest river in Africa after the Nile. The Congo Basin is also home to a large rainforest, the second largest rainforest in the world after the Amazon Rainforest.
- (d)
 - The correct answer is (d). None of the statements are correct.
 - Amarkantak Hills are located in the Maikal Range of the Satpura Range, not at the confluence of Vindhya and Sahyadri Ranges.
 - Biligirirangan Hills are not part of the Satpura Range. They are a part of the Eastern Ghats.
 - Seshachalam Hills are not part of the Western Ghats. They are a part of the Eastern Ghats.
- (d)

- The correct answer is (d). None of the statements are correct.
 - The East-West Corridor under the Golden Quadrilateral Project connects Silchar in Assam and Porbandar in Gujarat.
 - The Trilateral Highway connects Moreh in Manipur and Mae Sot in Thailand via Myanmar.
 - The Bangladesh-China-India-Myanmar Economic Corridor connects Kolkata in West Bengal with Kunming in China.
11. (c)
- **Statement-I** is correct because India majority of electricity produced from coal as per Economic Survey.
 - **Statement-II** is wrong. 3-5% uranium enrichment enough for electricity production. So, 'c' is the answer.
12. (c)
- St1 right. Marsupials are naturally found in Australia as for NCERT, class 12 biology, chapter 7.
 - St 2 wrong. Montane forests are found in mountainous regions typically between 1,000 and 3,500 meters. Says NCERT Class9. But in Australian marsupials found in the lower regions as well. So, st 2 wrong. Therefore the answer is [c]
13. (a)
- **Invasive Species Specialist Group (ISSG):** By increasing awareness about invasive alien species and methods to prevent, control, or eradicate them, it seeks to reduce threats to natural ecosystems and the native species they support. The ISSG promotes and facilitates the global interchange of knowledge and information on invasive species and ensures the connection between knowledge, practice, and policy so that decisions are well-informed.
 - Policy and technical guidance, as well as information sharing through its online tools and resources and through networking, are the ISSG's two main focus areas.
14. (a) Lion-tailed macaque, also known as the wanderoo, thrives in the upper canopy of tropical evergreen rainforests and monsoon forests, at a wide range of elevations, from 330 to 6,000 ft (100–1,850 m). They are endemic to the Western Ghats. Lion-tailed macaques are diurnal and live in groups of 10 to 20 individuals. The Lion-tailed macaque (*Macaca silenus*) is an Old World monkey. One of the distinguishing features of this species is that males define the boundaries of their home ranges by calls. Overall, their communication system contains as many as 17 vocalizations. The magnificent Lion-tailed macaque is named due to its lion-like, long, thin, and tufted tail. In the wild, these are only native to India. It is a primate endemic to small and severely fragmented rainforests of the Western Ghats in Karnataka, Kerala and Tamil Nadu.
15. (c) "Honeybees possess one of the most complicated examples of non human communication. They can tell each other where to find resources such as food, water, or nest sites with a physical "waggle dance."
- SOURCE:** <https://www.thehindu.com/sci-tech/science/unlocking-secrets-of-the-honeybee-dancelanguage/article66603728.ece>
16. (d)
- The answer is (d). All four statements are correct.
 - Some mushrooms have medicinal properties. For example, the shiitake mushroom is known to boost the immune system and fight cancer.
 - Some mushrooms have psychoactive properties. For example, the psilocybin mushroom is known to cause hallucinations and alter consciousness.
 - Some mushrooms have insecticidal properties. For example, the oyster mushroom is known to kill mosquitoes.
 - Some mushrooms have bioluminescent properties. For example, the jack-o'-lantern mushroom is known to glow in the dark.
17. (b)
- st1 wrong. Indian squirrels do not build nests by making burrows in the ground. They build nests in trees, using leaves, twigs, and other materials.
 - st 2 right. Indian squirrels do store their food materials like nuts and seeds in the ground. They also store food in trees and in other hidden places.
 - st 3 right. Indian squirrels are omnivorous. They eat a variety of things, including nuts, seeds, fruits, insects, and small animals.
 - Therefore, statements 2 and 3 are correct, while statement 1 is incorrect.
- Note:** It is state animal of Puducherry.
- SOURCE:** https://dste.py.gov.in/ppcc/pdf/Publication/Newsletters/2017/newsletter_April-June-2017.pdf
18. (c)
- The answer is (c). All three statements are correct.
 - "– Thermophiles: A thermophile is an organism—a type of extremophile—that thrives at relatively high temperatures, between 41 and 122 °C (106 and 252 °F).
 - Psychrophiles or cryophiles are extremophilic organisms that are capable of growth and reproduction in low temperatures, ranging from –20 °C (–4 °F) to 20 °C (68 °F).
 - Acidophiles are organisms that can withstand and even thrive in acidic environments where the pH values range from 1 to 5."
19. (b) **The present study examined the use and making of tools to obtain foodstuffs in artificial-mound holes by five captive, group-living Sumatran orangutans (*Pongo pygmaeus abelii*).** Three adult orangutans frequently stripped leaves and twigs from a branch provided (tool-making), and then inserted the tool into a hole to obtain foodstuffs (tool-using). When the orangutans were unable to insert a tool into a hole, they usually modified the tool and/or changed their tool-using technique, such as changing how they grasped the tool.
- Note:** Orangutans are great apes native to the rainforests of Indonesia and Malaysia. They are now found only in parts of Borneo and Sumatra, but during the Pleistocene

they ranged throughout Southeast Asia and South China. Orangutans are among the most intelligent primates. They use a variety of sophisticated tools and construct elaborate sleeping nests each night from branches and foliage.

20. (c)

- The answer is (c), only three.
- Hydrofluorocarbons (HFCs) are man-made chemicals that are used in a variety of products, including aerosols, foam agents, and fire retardants. HFCs are also used as refrigerants, but they are being phased out in many countries due to their environmental impact.
- HFCs are not used in the making of lubricants. Lubricants are typically made from petroleum-based products or synthetic oils.
- Therefore, the correct answer is (c), only three.

21. (d) Income from InvITs is subjected to income tax, does not matter whether you have earned interest or dividend.

Statement-I is wrong thus and by elimination of options containing this statement, we arrive at the correct answer [d].

Statement-II is correct because InvITs are recognized as borrowers under the Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act). This means that InvITs can raise funds by issuing debt securities, and the lenders can take possession of the assets of the InvITs in case of default.

Note: An Infrastructure Investment Trust (InvITs) is Collective Investment Scheme similar to a mutual fund, which enables direct investment of money from individual and institutional investors in infrastructure projects to earn a small portion of the income as return. The InvIT is designed as a tiered structure with Sponsor setting up the InvIT which in turn invests into the eligible infrastructure projects either directly or via special purpose vehicles (SPVs). The InvITs are regulated by the SEBI (Infrastructure Investment Trusts) Regulations, 2014.

22. (a)

- The answer is (a), both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I.
- Statement-I is correct because many central banks around the world have raised interest rates in the post-pandemic period in an effort to combat rising inflation. For example, the US Federal Reserve has raised interest rates four times since March 2022, and the Bank of England has raised interest rates five times since December 2021.
- Statement-II is also correct because central banks believe that they can use monetary policy to influence the level of inflation. When interest rates are raised, it becomes more expensive to borrow money. This, in turn, can help to bring down inflation.
- Therefore, Statement-II is the correct explanation for Statement-I. By raising interest rates, central banks are hoping to slow down the economy and bring inflation under control.

23. (b) The answer is (b), both Statement-I and Statement-II are correct but Statement-II is not the correct explanation for Statement-I.

Statement-I is correct because carbon markets are a way of reducing greenhouse gas emissions by creating a financial incentive for businesses to reduce their emissions. Businesses that reduce their emissions can sell their emission reductions to other businesses that are not able to reduce their emissions as much. This creates a market for emission reductions, and the price of emission reductions is determined by supply and demand.

Statement-II is also correct because the government can use carbon markets to raise revenue. The government can sell emission allowances, and the revenue from the sale of emission allowances can be used to fund climate change mitigation and adaptation programs.

24. (a) The answer is (a), conducting Open Market Operations. Sterilisation Intervention by the RBI to keep the money supply stable against an increase in foreign exchange inflow. Sterilisation is carried out through open market operation.

25. (b) A capital market is a financial market in which long-term debt or equity-backed securities are bought and sold, in contrast to a money market where short-term debt is bought and sold. Among the given options only St1 and St4 are associated with it whereas St2 and St3 deal with short-term securities. So answer is (b) only two of them are part of capital market.

26. (b) The correct answer is (b). The concept of 'Small Farmer Large Field' model allows small farmers to benefit from economies of scale by working together to perform certain agricultural operations, such as planting, harvesting, and marketing. By working together, the farmers can reduce costs and increase output. This can lead to improved profitability and increased incomes for the farmers.

27. (c) Government announces the minimum support prices for kharif crops such as Paddy, Jowar, Bajra, Maize, Ragi, Tur (Arhar), Moong, Urad, Cotton, Groundnut, Sunflower, Seed, Soyabean, Sesamum, Nigerseed. So, St1 And St2 are Right. St 3 is correct as some tribal people in India do use niger seed oil for cooking. Therefore the answer is [c].

28. (c) The correct answer is (c) Only three. Intangible investments are assets that do not have a physical form. Therefore, out of the given investments, only three (Brand recognition, Intellectual property, and Mailing list of clients) are considered intangible investments.

Note: Intangible investments are assets that are not physical in nature, such as **patents, trademarks, copyrights, and human capital**. They are often associated with higher productivity and growth in companies, sectors, and economies. Intangible investments can be created or acquired by businesses, but they do not appear on the balance sheet unless they have been purchased.

29. (b) **Statement 1 is correct-** Demographic performance refers to the assessment of population-related factors such as population growth rate, demographic composition, and

demographic changes over time. The Commission used 2011 population data for its recommendations. States with a lower fertility ratio will be scored higher on this criterion. The 15th Finance Commission suggested 12.5% weightage to the Demographic performance.

Statement 2 is correct- Forest and ecology refer to the assessment of environmental factors, including the preservation and conservation of forests, biodiversity, and ecological balance. This criterion has been determined by calculating the proportion of dense forest within each state relative to the total dense forest across all states. The 15th Finance Commission suggested 10% weightage to the Forest and Ecology.

Statement 3 is incorrect- Governance reforms encompass various measures aimed at improving the efficiency, transparency, and effectiveness of government operations and public service delivery. This criterion was not considered by the Fifteenth Finance Commission as one of the criteria for horizontal tax devolution.

Statement 4 is incorrect- Stable government refers to the political stability and continuity of government institutions. While stability in government can be a desirable factor, it was not explicitly mentioned as a criterion for horizontal tax devolution by the Fifteenth Finance Commission.

Statement 5 is correct- Tax and fiscal efforts involve the assessment of a state's efforts in tax collection and fiscal management. This criterion has been employed to incentivize states with better efficiency in tax collection. It is determined by the ratio of the average per capita own tax revenue to the average per capita state GDP over a three-year period from 2016-17 to 2018-19. The 15th Finance Commission suggested 2.5% weightage to the Tax and fiscal efforts.

30. (c)

Statement 1 is correct: UNOPS S3i initiative prioritize affordable housing. The objective in the field of affordable housing is to provide significant support for affordable housing initiatives targeting the middle-income and lower-middle-income groups of the population

Statement 2 is incorrect: Mass Rapid Transport is not included in the UNOPS S3i initiative.

Statement 3 is correct: UNOPS S3i initiative prioritize Healthcare. Regarding healthcare, the objective is to enhance the quality of healthcare in the specified countries by providing support for healthcare infrastructure projects.

Statement 4 is correct: UNOPS S3i initiative prioritize renewable energy. Within the realm of renewable energy, the primary emphasis lies in investing in infrastructure projects related to renewable energy sources, including but not limited to solar, hydro, wind, biomass, and hydrogen, particularly in eligible emerging markets and developing nations

Note: UNOPS provides infrastructure, procurement and project management services for a more sustainable world. UNOPS also provides meaningful technical expertise to countries in the implementation of the Sustainable Development Goals and the Paris Agreement on Climate Change.

31. (a) With the introduction of the concept of substantive and **procedural due process** in **Article – 21** of the Constitution all that fairness which is included in the **principles of natural justice** can be read into Article – 21 when a person is deprived of his life and personal liberty. In other areas it is Article – 14 which incorporates the principles of natural justice. Article – 14 applies not only to discriminatory class legislation but also to arbitrary or discriminatory State action. Because violation of natural justice results in arbitrariness therefore violation of natural justice is violation of Equality Clause of Article – 14. Therefore, now the principle of natural justice cannot be wholly disregarded by law because this would violate the fundamental rights guaranteed by Articles – 14 and 21 of the Constitution. (Source: https://nios.ac.in/Introduction_To_Law)

32. (a)

- Statement-I is correct because the management of prisons in India is a state subject under Entry 4 of List II of the Seventh Schedule to the Constitution of India. This means that the power to legislate on prisons lies with the state governments. The Prisons Act, 1894 is a central legislation, but it only lays down the broad framework for prison administration. The day-to-day administration of prisons is left to the state governments, who have their own rules and regulations.

- **Statement 2 is correct:** The management and administration of Prisons falls **exclusively in the domain of the State Governments and is governed by the Prisons Act, 1894** and the Prison Manuals of the respective State Governments. Hence it is true that the Prisons Act 1894 kept the subject of prisons in the Provincial government (State governments) and **this explains why State governments have the power to frame their own rules and regulations** regarding prison management.

33. (c) The correct answer is (c), it defines and limits the powers of government. A constitution is a set of fundamental principles or established precedents according to which a state or other organization is acknowledged to be governed. It typically defines the structure, procedures, powers, and duties of the government, as well as the rights and freedoms of the people.

SOURCE: NCERT Class8

34. (*)

- The first Amendment of 1951 inserted the ninth schedule to protect laws from judicial review. It also allowed government more powers against freedom of speech, right to property, power to nationalize an industry etc. So, answer could be (a).

- However, some experts opine that 42nd amendment also give powers to Parliament to impose more restrictions on fundamental rights. But when comparing both 1st and 42nd amendments, 1st amendment seems more appropriatesss.

35. (a)

- NCBC is a constitutional body
- NHRC is a statutory body,
- National law commission is an executive body,

- National Consumer Disputes Redressal Commission is a statutory body.
- Therefore, only 1 statement, (a) is right.

Note:

- National Commission for Backward Classes (NCBC) was initially constituted by the Central Govt by the National Commission for Backward Classes Act, 1993 and so far the Commission had been reconstituted 7 times up to 2016.
- The present Commission (8th) has been accorded **Constitutional Status** and constituted through “**The Constitution (One Hundred and Second Amendment) Act, 2018**” Act, whereby **Article 338B** has been inserted, forming a Commission for the socially and educationally backward classes to be known as National Commission for Backward Classes.

36. (d)

- Statement 1 is wrong: Article 71 of the Constitution explicitly states that any act done by the President or Vice President in their official capacity shall not be invalidated just because the Supreme Court has declared their election to be invalid.
- Statement 2 is wrong: The Presidential and Vice Presidential election Act and rules of 1952 empower the election commission of India to conduct elections to these offices without any provision allowing for changes to election cycles due to non functional legislative assemblies.
- Statement 3 is wrong: The Constitution does not provide for any time limit to either the President or Governor with respect to delivering assent. All three statements are wrong.

37. (a)

- Not being a Money Bill, the Council of States has **the same power to reject or amend a Financial Bill** as it has in the case of non-Financial Bills subject to the limitation that an amendment other than for reduction or abolition of a tax cannot be moved in either House without the President's recommendation. Thus, **statement 1 is correct.**
- A Money Bill cannot be introduced in the Council of States nor can it be introduced except on the recommendation of the President. Again, the Council of States has no power to amend or reject such a Bill. It can **only recommend** amendments to the House of the People. Thus, **statement 2 is correct.**
- Only Money Bills are excepted out of the provisions relating to a joint sitting [Art. 108(1)]. Thus, **statement 3 is also correct.**
- **Since all three statements are correct, the correct answer should be (c) but Official (UPSC) answer key is (b).**

38. (b) Community reserves in India are terms denoting protected areas of India which typically act as buffer zones to or connectors and migration corridors between established national parks, wildlife sanctuaries and reserved and protected forests of India. Statement 1 is incorrect: As per the Section 36 D of the Wild Life Protection Act (WLPA): The State Government shall constitute a Community Reserve management committee, which shall be the authority responsible for conserving, maintaining and managing the community reserve. The

committee shall elect a Chairman who shall also be the Honorary Wild Life Warden on the community reserve. Statement 2 is correct: After a forest has been made into a community reserve, people are not allowed to hunt there, thus hunting is prohibited in community reserves. Statement 3 is correct: People of such area are allowed to collect non-timber forest produce. Statement 4 is incorrect: After a forest has been made into a community reserve, people are not allowed to hunt there, or use it for agricultural practices such as Shifting (jhum) cultivation.

39. (b)

- Statement 1 is correct: article 244(1)- President may by order declare to be Scheduled areas after consultation with the Governor of the state.
- Statement 2 is incorrect: the lowest administrative unit is the gram Sabha and not the cluster of villages at the block level.
- Statement 3 is incorrect: The notification of an area as scheduled areas takes place through the **presidential order**. The **largest administrative unit forming the scheduled areas** has been the **district** and the **lowest the cluster of villages** in the block. The **Governors of the States** in which there are 'Scheduled Areas' have to **submit reports to the President** regarding the administration of such Areas, annually or whenever so required by the **President [Sch. V, Para 3]**. Hence, **Only two options are correct.**

40. (c) The correct answer is (c). Statement-I is correct but Statement-II is incorrect. Article 335 does not define the term “efficiency of administration.” Instead, it simply states that the government must take into account the need to maintain efficiency of administration when making appointments to government jobs. The meaning of “efficiency of administration” has been left to be determined by the courts on a case-by-case basis.

41. (a) The answer is (a). Dhanyakataka was located in the region of Andhra, which is present-day Andhra in continuation.

Pradesh, India. It was an important center during Satvahan Empire.

42. (b) St1 is wrong. Some stupas were erected even in Pre-Buddhist era. St 2 and St 3 are right.

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

44. (d) The answer is (d). Vattakirutal is a practice mentioned in Sangam poems in which a defeated king commits ritual suicide by starving himself to death.

Note: Vatakkiruttal, also Vadakiruthal and vadakiruttal, was a Tamil ritual of fasting till death. It was especially widespread during the Sangam age. The Tamil kings, in order to save their honour, and prestige, were prepared to meet their death facing North (‘Vatakkiruttal’) and never would they turn their back in battle.

45. (d) These dynasties occurred between 9th to 14th century so all options are wrong.
46. (b)
- The correct answer is (b). Only two of the above pairs are correctly matched.
 - St1 wrong. Devichandragupta was written by Visākhadatta, not Bilhana.
 - St 2 right. Hammira-Mahakavya was written by Nayachandra Suri, so this pair is correctly matched.
 - St 3 wrong. Milinda-Panha was written by Nāgasena, not Nagarjuna.
 - St 4 right. Nitivakyamrita was written by Somadeva Suri, so this pair is also correctly matched.
 - Therefore, only two of the above pairs are correctly matched.
47. (b) The correct answer is (b), Jainism. Jainism is an ancient Indian religion that teaches that all living beings, including animals, plants, and even inanimate objects, have a soul. This belief is known as ahimsa, or nonviolence, and it is one of the core tenets of Jainism.
48. (a) The correct answer is (a), Devaraya I. He was the third ruler of the Vijayanagara Empire, and he reigned from 1406 to 1422. Devaraya I was a great warrior and statesman, and he expanded the Vijayanagara Empire and made it one of the most powerful empires in South India. He also built a large dam across the Tungabhadra River and a canal-cum-aqueduct several kilometres long from the river to the capital city.
49. (c) Portuguese Governor Nino da Cunha (1529–38) transferred his capital from Cochin to Goa (1530) and acquired Diu and Bassein (1534) from Bahadur Shah of Gujarat.
50. (d) The Charter Act of 1833 made the Governor-General of Bengal as the Governor-General of India and vested in him all civil and military powers.
- Note:** The Charter Act of 1833 was a significant constitutional instrument defining the scope and authority of the East India Company. The liberal and utilitarian philosophy of Bentham was made popular by the provisions of this Act. The Governor-General of Fort William was hereafter called 'the Governor - General of India'. Thus, Bentinck was the first Governor-General of India'. A Law Member was appointed to the Governor-General's Council. T. B. Macaulay was the first Law Member of the Governor-General-in-Council.
51. (b) Janani Suraksha Yojana (JSY) is a safe motherhood intervention under the National Rural Health Mission (NRHM). JSY is a 100 % centrally sponsored scheme. So, statement 1 is not correct. It is being implemented with the objective of reducing maternal and neonatal mortality by promoting institutional delivery among poor pregnant women. So, statements 2 and 3 are correct. Under the Janani Shishu Suraksha Karyakaram scheme (and not under JSY), all pregnant women and infants will get free treatment benefits at public health institutions including zero expenses delivery.

So, statement 4 is not correct.

- All pregnant women are eligible for JSY, regardless of their age, number of children, or income level.
- JSY provides cash assistance to pregnant women to cover the costs of delivery and postpartum care. The amount of cash assistance varies depending on the type of facility where the woman delivers and the state in which she resides.
- JSY also provides incentives to healthcare workers, such as ASHAs, for promoting institutional delivery.
- JSY has partnerships with private hospitals and clinics to ensure that healthcare services are available to pregnant women even in areas with limited infrastructure.

Therefore, option (b) is the correct answer.

52. (c)

Statement 1 is incorrect: Prophylactic Iron Folic Acid supplementation (not Prophylactic calcium) given to children, adolescents, women of reproductive age and pregnant women, irrespective of anemia is a key continued intervention.

Statement 2 is correct: Promotion and monitoring of delayed clamping of the umbilical cord for at least 3 minutes (or until cord pulsations cease) for newborns across all health facilities will be carried out for improving the infant's iron reserves up to 6 months after birth. Simultaneously, all birth attendants should make an effort to ensure early initiation of breastfeeding within 1 hour of birth.

Statement 3 is correct: The Anemia Mukht Bharat, also integrates deworming of women of reproductive age and for pregnant women as part of the NDD strategy. Bi-annual mass deworming for children in the age groups between 1-19 years is carried out on designated dates – 10th February and 10th August every year under National Deworming Day (NDD) programme.

Statement 4 is correct: The Anemia Mukht Bharat strategy attempts to intensify awareness and integrate screening and treatment for non-nutritional causes of anemia with special focus on malaria, haemoglobinopathies and fluorosis.

53. (a) The correct answer is (a). st1 is right: Carbon Fibre is an important raw material for structural applications in defence, automobile aerospace and nuclear technologies. Technology can be used extensively in wind turbines and deep well oil explorations. st2 is wrong, they can be recycled.

Note:

- Carbon Fibre is a new-age material which has found multiple uses in industry and automotive sector. It is a lightweight but strong material with high conductivity and has been growing in demand as a substitute for steel in the automobile, construction and military sectors.
- Recently, Reliance Industries chairman Mukesh Ambani at the 45th AGM announced the company's plan to build India's 1st and World's Largest Carbon Fibre Plant at Hazira, Gujarat.

54. (c)

55. (b) The correct answer is (b). Biofilters can help in reducing phosphorus in water. So, St3 is wrong. Other two statements are right.
56. (a)
- The correct answer is (a). St1 is wrong. Cepheid variable stars are just stars which are visible to us from the earth that are many times larger than the sun itself.
 - St 2 is wrong. Nebulae: A nebula is a giant cloud of dust and gas in space.
 - St 3 right. Pulsars are neutron stars that are formed when massive stars run out of fuel and collapse. The collapse of the star's core creates a very strong magnetic field, which causes the neutron star to emit beams of radiation.
- Note:** A nebula is a giant cloud of dust and gas in space. Some nebulae (more than one nebula) come from the gas and dust thrown out by the explosion of a dying star, such as a **supernova**. Other nebulae are regions where new stars are beginning to form. For this reason, some nebulae are called "**star nurseries**."
57. (d)
- Japan has its own satellite navigation system called the Quasi-Zenith Satellite System (QZSS). It is a four-satellite regional time transfer system and a satellite navigation system. It is designed to enhance the Global Positioning System (GPS) in the Asia-Oceania region.
 - Australia, Canada, and Israel do not have their own Satellite Navigation Systems.
58. (d)
- The correct answer is (d).
 - Statement 1 is incorrect because ballistic missiles are not jet-propelled. They are rocket-propelled throughout their flight.
 - Statement 2 is incorrect because Agni-V is an intercontinental ballistic missile (ICBM), while BrahMos is a supersonic cruise missile. ICBMs travel at least 5,500 kilometers, while cruise missiles travel less than 5,500 kilometers.
59. (b) **Statement 1 is correct:** Gold mining is poisoning Amazon forests with mercury. To separate the gold, miners mix liquid mercury into the sediment, which forms a coating around the gold.
- Statement 2 is correct:** Fly ash generated by TPPs is one of the ways mercury is released into the environment. Fly ash is usually disposed in ash ponds in the form of ash slurry, forming an aquatic ecosystem of its own. Coal-based TPPs are the major source of mercury – the ninth most toxic element found on earth — emissions into the environment. Mercury contributed over 80 per cent of emissions released by the TPPs, according to 2016 estimates by Delhi-based think-tank Centre for Science and Environment.
- Statement 3 is incorrect:** While high levels of mercury exposure can be harmful, there are established safe levels of exposure to mercury for various scenarios. As per different reports currently, mercury vapours concentrations greater than 0.01 mg/m³ are considered unsafe.
60. (c) The correct answer is (c), all three statements are correct. Green hydrogen is a type of hydrogen that is produced using renewable energy sources, such as solar or wind power. It is a clean and sustainable fuel that has the potential to play a major role in the transition to a low carbon economy. Green hydrogen can be used directly as a fuel for internal combustion engines. It can also be blended with natural gas and used as fuel for heat or power generation. In addition, green hydrogen can be used in the hydrogen fuel cell to run vehicles.
61. (a) The correct answer is (a), only two of the countries listed share a land border with Ukraine: Hungary and Romania. Overall, Ukraine shares a land border with seven countries: Russia, Belarus, Poland, Hungary, Romania, Moldova and Slovakia.
62. (c) The correct answer is (c). The atmosphere is largely transparent to short wave solar radiation. The incoming solar radiation passes through the atmosphere before striking the earth's surface. Within the troposphere water vapour, ozone and other gases absorb much of the near infrared radiation.
- SOURCE:** This is given in NCERT Class12 Geography.
63. (d) Many tropical rainforest soils are very poor and infertile. Millions of years of weathering have washed most of the nutrients out of the soil. St1 is wrong so answer is (d).
- Note:** Tropical rain forests can be found in Asia, Australia, Africa, South America, Central America, Mexico, and several Pacific Islands, all of which are around 28 degrees north or south of the equator. They cover about 6-7 percent of the earth's surface and are home to half of the planet's biodiversity.
64. (d) St I wrong. Temperature difference between ocean and continent is more in winter and not in summer. So automatically answer is D by elimination.
65. (c) The answer is (c). Both statements are correct.
- P waves are compressional waves, which means that the individual particles vibrate to and fro in the direction of wave propagation. S waves are shear waves, which means that the particles vibrate up and down at right angles to the direction of wave propagation. P waves travel faster than S waves, so they are recorded earlier on a seismograph.
66. (d)
- The answer is (d). None of the statements are correct.
 - Some coal-based thermal power plants in India use seawater. For example, the Tata Mundra Ultra Mega Power Plant in Gujarat uses seawater for cooling.
 - Some coal-based thermal power plants in India are set up in water-stressed districts. For example, the Talcher Super Thermal Power Station in Odisha is located in a water-stressed district.
 - Some coal-based thermal power plants in India are privately owned. For example, the Adani Power Rajasthan Limited is a privately owned company that operates a coal-based thermal power plant in Rajasthan.

67. (a) The correct answer is (a). Wolbachia is a common bacteria that occurs naturally in 60% of insect species, including some mosquitoes, fruit flies, moths, dragonflies and butterflies. It is not, however, found in dengue carrying Aedes aegypti mosquitoes. Researchers are trying to breed dengue mosquitoes with mosquitoes carrying Wolbachia. This will produce Wolbachia mosquitoes. So, even if they bite people, it won't cause dengue.

SOURCE: *Article in Indian Express in 2021.*

68. (c)
- The answer is (c), all three of the activities are often considered and discussed for carbon capture and sequestration.
 - St1 right. Spreading finely ground basalt rock on farmlands extensively: This is a form of enhanced weathering, which is a process that speeds up the natural weathering of rocks to remove carbon dioxide from the atmosphere. Basalt is a type of volcanic rock that is rich in minerals that react with carbon dioxide to form carbonate minerals. When these minerals are spread on farmlands, they react with the carbon dioxide in the air to form carbonates, which are then stored in the soil.
 - St2 right. Increasing the alkalinity of oceans by adding lime: This is another form of enhanced weathering. Lime is a calcium-based mineral that reacts with carbon dioxide to form calcium carbonate. When lime is added to the oceans, it reacts with the carbon dioxide in the water to form calcium carbonate, which is then stored in the ocean floor.
 - St3 right- to do this is to pump the carbon dioxide into abandoned subterranean mines. The carbon dioxide then dissolves in the water in the mines to form carbonated waters.
 - All three of these activities are often considered and discussed for carbon capture and sequestration.
69. (a) In 2022, the economic magazine had written an article about it how DNA samples of the wild life can be collected from air using aerial metagenomics technique.
- Note:** "Aerial metagenomics" refers to the collection and analysis of genetic material (DNA, RNA) directly from environmental samples. In the context of "aerial" metagenomics, it would specifically refer to collecting these samples from the air in a given habitat.
70. (a) The correct answer is (a). Microsatellites are small pieces of DNA that are relative. They are useful for studying inheritance patterns in families or for creating a DNA fingerprint from crime scene samples and for studying evolution of populations and species.
- Note:** Microsatellite DNA, also known as **short tandem repeats (STRs)**, is a type of genetic marker that consists of repeating sequences of DNA. It is commonly used in genetic studies, including population genetics and phylogenetic analysis, to study relationships among different species of fauna.
71. (b) As per the new definition and criterion of MSMEs which came into effect from 1st July, 2020. The definition

of Micro manufacturing and services units has been increased to Rs. 1 Crore of investment and Rs. 5 Crore of turnover. The limit of small unit has been increased to Rs. 10 Crore of investment and Rs 50 Crore of turnover. The limit for medium Enterprises has been changed to Rs. 50 Crore of investment and Rs. 250 Crore of turnover. Hence, statement 1 is not correct.

In terms of Master Direction on 'Priority Sector Lending (PSL) – Targets and Classification' dated September 4, 2020, all bank loans to MSMEs conforming to the conditions prescribed therein qualify for classification under priority sector lending. Bank loans to Micro, Small and Medium Enterprises (for both manufacturing and service sectors) engaged in providing or rendering of services and defined in terms of investment in equipment under MSMED Act, 2006, irrespective of loan limits, are eligible for classification under priority sector, w.e.f. March 1, 2018. Hence, statement 2 is correct.

72. (c) The correct answer is (c) Both 1 and 2.

St1 is right. Central bank digital currencies (CBDCs) are digital versions of fiat currencies that are issued and regulated by central banks. They are designed to be a more efficient and secure way of making payments, and they can be used to make payments without using the US dollar or the SWIFT system.

St 2 is right. CBDCs can also be distributed with a condition programmed into them, such as a time-frame for spending them. This could be used to encourage people to spend the money quickly, which could help to stimulate the economy.

Note: Central Bank Digital Currency (CBDC) is a digital form of currency notes issued by a central bank. While most central banks across the globe are exploring the issuance of CBDC, the key motivations for its issuance are specific to each country's unique requirements.

The key motivations for exploring the issuance of CBDC in India among others include reduction in operational costs involved in physical cash management, fostering financial inclusion, bringing resilience, efficiency, and innovation in payments system, adding efficiency to the settlement system, boosting innovation in cross-border payments space and providing public with uses that any private virtual currencies can provide, without the associated risks.

73. (d) The correct answer is (d). Beta is a numeric value that measures the fluctuations of a stock to changes in the overall stock market. A beta of 1.0 means that the stock moves in the same direction as the market. A beta of greater than 1.0 means that the stock moves more than the market.
74. (b)

Statement 1 is incorrect: NABARD began promoting self-help groups in 1991–1992. And it served as the actual launch pad for the "SHG movement." The Reserve Bank of India additionally permitted SHGs to open savings banks accounts in 1993. The ability to use banking services gave the movement a significant boost.

Statement 2 is correct: The Banks provide the loan to the Self Help Group as a whole and it is the collective responsibility of the SHG to repay that loan. Hence all members of a group take responsibility for a loan that an individual member takes. Further, the SHG may decide to not provide any share in further loans to the defaulter member.

Statement 3 is correct: The Financial Inclusion Fund scheme to support Scheduled Commercial Banks (SCBs) and Regional Rural Banks (RRBs) for enabling Dual Authentication option in the microATMs for SHG transactions is being launched to provide an enabling eco-system for the SHGs to seamlessly operate at Business Correspondent points with the proposed "Dual Authentication" feature. Thus, it can be said that SCBs and RRBs support the SHGs in availing the credits as per their needs.

SOURCE: <https://ncwapps.nic.in/pdfReports/SHG-Maharashtra>

75. (b)

- St1 is right. Government lacks the money therefore largely focuses on curative care, which is the treatment of disease after it has occurred. Preventive, promotive, and rehabilitative care, which are aimed at preventing disease from occurring in the first place, are often neglected.

- St 2 is right. Health being in the state list, the states are responsible for organizing health services. But, it doesn't explain St1. Therefore, the answer is [b]

76. (c) The correct answer is (c)

- Statement-I is correct because according to the United Nations' 'World Water Development Report, 2022', India extracts 25% of the world's groundwater withdrawal each year. This is more than any other country in the world.

- Statement-II is wrong India does not need to extract more than a quarter of the world's groundwater each year to satisfy the drinking water and sanitation needs of its population. In fact, India could reduce its groundwater extraction by investing in water conservation and water efficiency measures.

77. (a)

- Article 355 provides 'Duty of the Union to protect States against external aggression and **internal disturbance**'. **Thus statement 1 is correct.**

- According to Article 22 of Constitution of India (Protection against arrest and detention in certain cases):

- No person who is arrested shall be detained in custody without being informed, as soon as may be, of the grounds for such arrest nor shall he be denied the right to consult, and to be defended by, a legal practitioner of his choice.

- Every person who is arrested and detained in custody shall be produced before the nearest magistrate within a period of twenty four hours of such arrest excluding the time necessary for the journey from the place of arrest to the court of the magistrate and no such person shall be detained in custody beyond the said period without the authority of a magistrate.

- Nothing in clauses (1) and (2) shall apply (a) to any person who for the time being is an enemy alien; or (b) to any person who is arrested or detained under any law providing for preventive detention.

- Hence, According to Clause (3) Article 22 of the Constitution of India, it is not mandatory for states to provide access to legal counsel to the person held for preventive detention. Thus, **Statement 2 is correct.**

- Section 32 (1) of the **Prevention Of Terrorism Act (POTA) 2002** stated that "Notwithstanding anything in the Code 12 or in the Indian Evidence Act, 1872 (1 of 1872), but subject to the provisions of this section, a confession made by a person before a police officer not lower in rank than a Superintendent of Police shall be admissible in the trial of such person." Thus, **Statement 3 is incorrect.**

78. (d) The correct answer is (d), Somalia.

Somalia has been suffering from decades of civil strife and food shortages. In 2022, the country was in the news for its very severe famine. The United Nations warned that more than 7 million people in Somalia were at risk of starvation. The famine was caused by a combination of factors, including drought, conflict, and economic collapse.

79. (c)

- The correct answer is (c), both 1 and 2.

- The Biodiversity Management Committees (BMCs) are key to the realization of the objectives of the Nagoya Protocol, as they are responsible for promoting conservation, sustainable use and documentation of biological diversity. They also 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.

- The BMCs also have the power to levy collection fees on the access of biological resources within its jurisdiction. The collection fees are used for the conservation and sustainable use of biological resources.

80. (a) The correct answer is (a) Only one.

- Statement 1 is incorrect. The members nominated to either House of the Parliament or the Legislative Assemblies of States are not eligible to be included in the Electoral College. Only the elected members are eligible to be included in the Electoral College.

- Statement 2 is incorrect. The value of vote of each MLA of a State is not directly proportional to the number of elective Assembly seats in that State. The value of vote of each MLA of a State is determined by the following formula:

Value of vote of each MLA = Total number of votes of all MLAs in the State / Total number of elective Assembly seats in the State

- For example, the value of vote of each MLA in Madhya Pradesh is 230, while the value of vote of each MLA in Kerala is 140. This is because there are a total of 230 MLAs in Madhya Pradesh and 140 MLAs in Kerala.

- Statement 3 is incorrect. The value of vote of each MLA of Madhya Pradesh is not greater than that of Kerala. In fact, the value of vote of each MLA of Kerala is greater than that of Madhya Pradesh. This is because the ratio of total population to total number of elective seats in Kerala is greater than that of Madhya Pradesh.
 - Statement 4 is correct as value of vote of Pondicherry MLA is 16 while that of Arunachal Pradesh MLA is 8.
81. (a) In 1854, Walter Elliot, the commissioner of Guntur (Andhra Pradesh), visited Amaravati and collected several sculpture panels and took them away to Madras. (These came to be called the Elliot marbles after him.) He also discovered the remains of the western gateway and came to the conclusion that the structure at Amaravati was one of the largest and most magnificent Buddhist stupas ever built - says NCERT. So (a) is the answer.
82. (b)
- The answer is (b). Besnagar is known for the Heliodorus Pillar, a Vaishnavite shrine, not a Shaivite shrine.
 - St 2 right Bhaja is known for the Bhaja Caves, a Buddhist shrine.
 - St 3 right Sittanavasal is known for the Sittanavasal Caves, a Jain shrine. Therefore, only two of the pairs are correctly matched.
83. (a) The answer is (a).
Both Statement-I and Statement-II are correct. The Swadeshi movement was launched on 7th August, 1905, to protest against the partition of Bengal by the British. The movement encouraged the use of Indian-made goods, including handloom products. In 2015, the Government of India declared 7th August as National Handloom Day to honor the handloom weavers and to promote the use of handloom products. Statement-II is the correct explanation for Statement-I.
84. (d)
- The National Flag shall be rectangular in shape. The ratio of the length to the height (width) of the Flag shall be 3:2 as per IYB Ch.3. So, St 2 is right.
 - However, Std flag sizes as per MHA flag code of India are as follows: Dimensions in mm
- 6300 × 4200
3600 × 2400
2700 × 1800
1800 × 1200
1350 × 900
900 × 600
450 × 300
225 × 150
150 × 100. Thus, 600 × 400 is not one of them. So, St1 is wrong
85. (c)
- The correct answer is (c). Statement-I is correct but Statement-II is incorrect.
- Statement-I is correct. The Constitution Day is celebrated on 26th November every year to promote constitutional values among citizens from 2015 onwards. This day is also known as Samvidhan Divas.
 - Statement-II is not correct. The drafting committee was set up on 29 August 1947.
86. (c) Russia, Australia, South Africa, USA, Canada, China are among the top producers of gold. The ranking differ depending on which website you consult. But no, where it is given that Switzerland is the second largest producer of coal. Thus, Statement 2 is wrong and by elimination of options accordingly, we arrive at the correct answer [c].
87. (c) EU-US Trade and Technology Council serves as a forum for the United States and European Union to coordinate approaches to key global trade, economic, and technology issues and to deepen transatlantic trade and economic relations based on these shared values. It was established during the EU-US Summit on 15 June 2021 in Brussels. Statement II saying that "USA and the EU trying to bring technological progress and physical productivity under their control" is exaggeration. The agenda of this council is for mutual cooperation, rather than control. Thus, Statement II is wrong and by elimination of options accordingly, we arrive at the correct answer [c].
88. (d)
Statement 1 is incorrect: As per the latest data available (Economic Survey 2022-23) India's accounts for 1.8% of Global export of goods and 4% of global export of services. Thus, India accounts for 3.2% if global exports of goods are not correct.
Statement 2 is correct: Production Linked Incentive (PLI) scheme is a form of Performance-linked incentive given to companies based on their incremental sales from products manufactured in domestic units. It is aimed at boosting the manufacturing sector and to reduce imports of India.
Note: PLI schemes can be availed by both domestic as well as foreign companies operating in India, thus it is true that many domestic and foreign companies operating in India have taken advantage of PLI schemes.
SOURCE: Economic Survey 2022-23 (pg no 315)
89. (a)
- St1 is right. The SGP limits the levels of the budgetary deficit of the countries of the European Union to 3% of GDP and public debt levels to 60% of GDP.
 - St 2 and St3 are wrong. SGP does not make the countries of the European Union to share their infrastructure facilities or technologies. The correct answer is (a). Only one statement correct.
90. (d) The correct answer is (d).
- Statement 1 is wrong. All UN nations didn't adopt it. two countries voting against (the USA and Hungary) and three abstaining (Eritrea, Libya and the Dominican Republic). and later on some of the nations have not adopted it yet.

- Statement 2 is incorrect. The objectives and commitments stated in the GCM are not binding on UN member states. The GCM is a non-legally binding agreement, meaning that it does not create any legal obligations for UN member states. However, it does provide a framework for cooperation and coordination on migration issues.
 - Statement 3 is also incorrect. The GCM does not address internal migration or internally displaced people in its objectives and commitments. The GCM is focused on international migration, meaning that it does not cover migration within countries.
91. (b)
- St1 is wrong. Home Guards are raised under the Home Guards Act and Rules of the States/Union Territories. (and NOT Union Government)
 - St 2 is right. 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.,
 - St 3 is correct. 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.
- SOURCE:** <https://dgfscdhg.gov.in/about-homeguard>
92. (b)
- St1 is right. THE OFFICIAL SECRETS ACT, 1923- No person in the vicinity of any prohibited place shall obstruct, knowingly mislead or otherwise interfere with or impede, any police officer, or any member of 3 the Armed Forces of the Union engaged on guard, sentry, patrol, or other similar duty in relation to the prohibited place.
 - St 2 is wrong. it is given in THE OFFICIAL SECRETS ACT, 1923 and Indian Penal Code but not in Evidence Act.
 - St 3 is right. Arms (Amendment) Act, 2019- Whoever uses firearm in a rash or negligent manner or in celebratory gunfire so as to endanger human life or personal safety of others shall be punishable with an imprisonment for a term which may extend to two years, or with fine which may extend to rupee one lakh, or with both. Therefore the answer is [b] only two are right.
93. (d) The correct answer is (d) None.
- North Kivu and Ituri are provinces in the Democratic Republic of the Congo that are often in the news due to the ongoing conflict there.
 - Nagorno-Karabakh is a disputed region between Armenia and Azerbaijan that has been the subject of a longrunning conflict.
- Kherson and Zaporizhzhia are regions in Ukraine that have been occupied by Russia since the 2022 Russian invasion of Ukraine. Therefore, none of the pairs are correctly matched.
94. (c)
- Statement-I is correct because Israel has established diplomatic relations with several Arab states, including the United Arab Emirates, Bahrain, Sudan, and Morocco after Abraham Accords.
 - Statement-II is wrong. Israel has not signed Arab Peace Initiative (2002). So, answer is (c).
 - St2 is right and answer is b.
- SOURCE:** <https://www.mei.edu/publications/arab-peace-initiative-returns-will-it-supplant-abraham-accords>
95. (b)
- The correct answer is (b). St1 is right. Major Dhyan Chand Khel Ratna Award for the most spectacular and outstanding performance by a sportsperson over a period of four years.
 - St 2 is wrong. Arjuna Award for the previous four years at the international level. So it is not lifetime award but is based of 4 year performance of the player for lifetime achievement, there is a separate award called Dhyan Chand Award for lifetime achievement.
 - St3 is right. Dronacharya Award was instituted in 1985 to honour eminent coaches who have successfully trained sportspersons or teams and enabled them to achieve outstanding results in international competitions. The awardee is given a statuette of Guru Dronacharya, a certificate, ceremonial dress and a cash award of ₹ 5 lakhs.
 - St4 is wrong. Rashtriya Khel Protsahan Puraskar is for entities other than sportspersons and coaches, e.g. NGO / companies who help in development of sports. Thus, only 2 statements are right.
96. (b)
- The correct answer is (b). St1 is right. The 44th Chess Olympiad held in Chennai in 2022 for the 1st time.
 - St 2 is right. Thambi, a brown horse, is the official mascot of the 44th Chess Olympiad. ‘
 - St 3 is wrong. Winner in the Open section: Hamilton-Russel Cup
 - St 4 is wrong. Winner in the Women’s section: Vera Menchik Cup
97. (d) The correct answer is (d) None.
- St1 wrong. Donbas is a region in eastern Ukraine.
 - St 2 wrong. Kachin is a state in northern Myanmar.
 - St 3 wrong. Tigray is a region in northern Ethiopia.
 - Therefore, none of the pairs are correctly matched.
98. (d) The correct answer is (d) Successful coups.
- Chad, Guinea, Mali, and Sudan have all experienced successful coups in recent years

99. (c) Green hydrogen can play a role in decarbonizing all of the mentioned heavy industries: fertilizer plants, oil refineries, and steel plants.

1. Fertilizer Plants: Fertilizer production is energy-intensive and often relies on fossil fuels, particularly natural gas. By using green hydrogen as a clean energy source, fertilizer plants can reduce their carbon emissions..

2. Oil Refineries: Oil refineries are major contributors to greenhouse gas emissions due to their energy-intensive processes and reliance on fossil fuels. Green hydrogen can be utilized in oil refineries to replace or supplement fossil fuels, reducing their carbon footprint.

3. Steel Plants: The steel industry is responsible for a significant amount of global carbon emissions. Green hydrogen can be used as a reducing agent in the steel

making process, replacing coal or coke. This process, known as direct reduction, enables the production of “green” or low-carbon steel.

100. (c)

- The correct answer is (c). Both statements 1 and 2 are correct.

- The G-20 was originally established in 1999 as a forum for the finance ministers and central bank governors of the world’s 20 largest economies to discuss international economic and financial issues. The G-20 has since expanded its scope to include other issues, such as climate change and development.

- India is currently the chair of the G-20. India’s G-20 priorities include digital public infrastructure, green tourism, skills, tourism MSMEs, and destination management.

