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## **IAS Prelims Solved Paper-1 2024**

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## **IAS PRELIMS SOLVED PAPER-1 2024**

Maximum Marks: 200 Total Limit: 2 Hr.

- The total fertility rate in an economy is defined as:
  - (a) the number of children born per 1000 people in the population in a year.
  - (b) the number of children born to a couple in their lifetime in a given population.
  - (c) the birth rate minus death rate.
  - (d) the average number of live births a woman would have by the end of her child-bearing age.
- Consider the following statements:
  - 1. In India, Non-Banking Financial Companies can access the Liquidity Adjustment Facility window of the Reserve Bank of India.
  - In India, Foreign Institutional Investors can hold the Government Securities (G-Secs).
  - 3. In India, Stock Exchanges can offer separate trading platforms for debts.

Which of the statements given above is/are correct?

- (a) 1 and 2 only
- (b) 3 only
- (c) 1,2 and 3
- (d) 2 and 3 only.
- In India, which of the following can trade in Corporate Bonds and Government Securities?
  - 1. Insurance Companies
  - Pension Funds
  - 3. Retail Investors

Select the correct answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- Consider the following:
  - 1. Exchange Traded Funds (ETF)
  - 2. Motor vehicles
  - 3. Currency swap

Which of the above is/are considered financial instruments?

- (a) 1 only
- (b) 2 and 3 only
- (c) 1, 2 and 3
- (d) 1 and 3 only
- With reference to the sectors of the Indian economy, consider the following pairs:

1. Storage of agricultural Secondary produce	Sector	
2. Dairy farm Primary		
3. Mineral exploration Tertiary		
4. Weaving cloth Secondary		

How many of the pairs given above are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- Consider the following materials:
  - Agricultural residues 1.
  - Corn grain
  - Wastewater treatment sludge
  - Wood mill waste

Which of the above can be used as feedstock for producing Sustainable Aviation Fuel?

- (a) 1 and 2 only
- (b) 3 and 4 only
- (c) 1, 2, 3 and 4
- (d) 1, 3 and 4 only
- With reference to physical capital in Indian economy, consider the following pairs:

emeration and reme wing paints.			
Items		Category	
1.	Farmer's plough	Working capital	
2.	Computer	Fixed capital	
3.	Yarn used by the weaver	Fixed capital	
4.	Petrol	Working capital	

How many of the above pairs are correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- Which one of the following words/phrases is most appropriately used to denote "an interoperable network of 3D virtual worlds that can be accessed simultaneously by millions of users, who can exert property rights over virtual items"?
  - (a) Big data analytics (b) Cryptography
- - (c) Metaverse
- (d) Virtual matrix
- With reference to the rule/rules imposed by the Reserve Bank of India while treating foreign banks, consider the following statements:
  - There is no minimum capital requirement for wholly owned banking subsidiaries in India.
  - For wholly owned banking subsidiaries in India, at least 50% of the board members should be Indian nationals.

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
- With reference to Corporate Social Responsibility (CSR) rules in India, consider the following statements:
  - 1. CSR rules specify that expenditures that benefit the company directly or its employees will not be considered as CSR activities.
  - CSR rules do not specify minimum spending on CSR activities.

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
- With reference to radioi-sotope thermoelectric generators (RTGs), consider the following statements:
  - RTGs are miniature fission reactors.
  - RTGs are used for powering the onboard systems of spacecrafts.
  - RTGs can use Plutonium-238, which is a by-product of weapons development.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1,2 and 3
- 12. Consider the following statements:

Statement-I: Giant stars live much longer than dwarf

Statement-II: Compared to dwarf stars, giant stars have a greater rate of nuclear reactions.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 13. Which one of the following is synthesised in human body that dilates blood vessels and increases blood flow?
  - (a) Nitric oxide
- (b) Nitrous oxide
- (c) Nitrogen dioxide
- (d) Nitrogen pentoxide
- 14. Consider the following activities:
  - 1. Identification of narcotics on passengers at airports or in aircraft
  - 2. Monitoring of precipitation
  - 3. Tracking the migration of animals

In how many of the above activities can the radars be used?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- Consider the following aircraft:
  - Rafael
  - 2. MiG-29
  - 3. Tejas MK-1

How many of the above are considered fifth generation fighter aircraft?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 16. In which of the following are hydrogels used?
  - 1. Controlled drug delivery in patients
  - 2. Mobile air-conditioning systems
  - 3. Preparation of industrial lubricants

Select the correct answer using the code given below:

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1,2 and 3
- 17. Which one of the following is the exhaust pipe emission from Fuel Cell Electric Vehicles, powered by hydrogen?
  - (a) Hydrogen peroxide
- (b) Hydronium
- (c) Oxygen
- (d) Water vapour
- 18. Recently, the term "pumped-storage hydropower" is actually and appropriately discussed in the context of which one of the following?
  - (a) Irrigation of terraced crop fields
  - (b) Lift irrigation of cereal crops
  - (c) Long duration energy storage
  - (d) Rainwater harvesting system

- "Membrane Bioreactors" are often discussed in the context
  - (a) Assisted reproductive technologies
  - (b) Drug delivery nanotechnologies
  - (c) Vaccine production technologies
  - (d) Wastewater treatment technologies
- 20. With reference to the Indian economy, "Collateral Borrowing and Lending Obligations" are the instruments
  - (a) Bond market
- (b) Forex market
- (c) Money market
- (d) Stock market
- Consider the following airports:
  - Donyi Polo Airport
  - Kushinagar International Airport
  - Vijayawada International Airport

In the recent past, which of the above have been constructed as Greenfield projects?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- With reference to "water vapour", which of the following statements is/are correct?
  - 1. It is a gas, the amount of which decreases with altitude.
  - Its percentage is maximum at the poles. Select the answer using the code given below:
  - (a) 1 only
- (b) 2 only
- (c) Both 1 and 2 (d) Neither 1 nor 2
- Consider the following description:
- - Annual and daily range of temperatures is low
  - Precipitation occurs throughout the year.
  - Precipitation varies between 50 cm 250 cm.

What is this type of climate?

- (a) Equatorial climate
- (b) China type climate
- (c) Humid subtropical climate
- (d) Marine West coast climate
- With reference to "Coriolis" force", which of the following statements is/are correct?
  - It increases with increase in wind velocity.
  - It is maximum at the poles and is absent at the equator. Select the answer using the code given below:
  - (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- On June 21 every year, which of the following latitude(s) experience(s) a sunlight of more than 12 hours?
  - Equator
- 2. Tropic of Cancer
- Tropic of Capricorn
- 4. Arctic Circle

Select the correct answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) 3 and 4
- (d) 2 and 4
- One of the following regions has the world's largest tropical peatland, which holds about three years worth of global carbon emissions from fossil fuels; and the possible destruction of which can exert detrimental effect on the global climate. Which one of the following denotes that region?
  - (a) Amazon Basin
- (b) Congo Basin
- (c) Kikori Basin
- (d) Rio de la Plata Basin

- 27. With reference to perfluoroalkyl and polyfluoroalkyl substances (PFAS) that are used in making many consumer products, consider the following statements:
  - 1. PFAS are found to be widespread in drinking water, food and food packaging materials.
  - 2. PFAS are not easily degraded in the environment.
  - 3. Persistent exposure to PFAS can lead to bioaccumulation in animal bodies.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3
- 28. Consider the following:
  - 1. Carabid beetles
- 2. Centipedes
- 3. Flies
- 4. Termites
- 5. Wasps

Parasitoid species are found in how many of the above kind of organisms?

- (a) Only two
- (b) Only three
- (c) Only four
- (d) All five
- 29. Consider the following plants:
  - 1. Groundnut
  - 2. Horse-gram
  - 3. Soybean

How many of the above belong to the pea family?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 30. Consider the following statements:

**Statement-I:** The Indian Flying Fox is placed under the "vermin" category in the Wild Life (Protection) Act, 1972. **Statement-II:** The Indian Flying Fox feeds on the blood of other animals.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 31. Consider the following statements:

**Statement-I:** The atmosphere is heated more by incoming solar radiation than by terrestrial radiation.

**Statement-II:** Carbon dioxide and other greenhouse gases in the atmosphere are good absorbers of long wave radiation.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 32. Consider the following statements:

**Statement-I:** Thickness of the troposphere at the equator is much greater as compared to poles.

**Statement-II:** At the equator, heat is transported to great heights by strong convectional currents.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 33. Consider the following:
  - 1. Pyroclastic debris
  - 2. Ash and dust
  - 3. Nitrogen compounds
  - 4. Sulphur compounds

How many of the above are products of volcanic eruptions?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 34. Which of the following is/are correct inference/inferences from isothermal maps in the month of January?
  - 1. The isotherms deviate to the north over the ocean and to the south over the continent.
  - 2. The presence of cold ocean currents, Gulf Stream and North Atlantic Drift make the North Atlantic Ocean colder and the isotherms bend towards the north.

Select the answer using the code given below:

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 35. Which of the following countries are well known as the two largest cocoa producers in the world?
  - (a) Algeria and Morocco
  - (b) Botswana and Namibia
  - (c) Cote d'Ivoire and Ghana·
  - (d) Madagascar and Mozambique
- 36. With reference to the Himalayan rivers joining the Ganga downstream of Prayagraj from West to East, which one of the following sequences is correct?
  - (a) Ghaghara Gomati Gandak Kosi
  - (b) Gomati Ghaghara Gandak Kosi
  - (c) Ghaghara Gomati Kosi Gandak
  - (d) Gomati Ghaghara Kosi Gandak
- 37. Consider the following statements:

**Statement-I:** Rainfall is one of the reasons for weathering of rocks.

Statement-II: Rain water contains carbon dioxide in solution.

**Statement-III:** Rain water contains atmospheric oxygen. Which one of the following is correct in respect of the above statements?

- (a) Both Statement-II and Statement-III are correct and both of them explain Statement-I
- (b) Both Statement-II and Statement-III are correct, but only one of them explains Statement-I
- (c) Only one of the Statements II and III is correct and that explains Statement-I
- (d) Neither Statement-II nor Statement-III is correct

- 38. Consider the following countries:
  - 1. Finland
- 2. Germany
- 3. Norway
- 4. Russia

How many of the above countries have a border with the North Sea?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 39. Consider the following information:

Waterfall	Region	River
1. Dhuandhar	Malwa	Narmada
2. Hundru	Chota Nagpur	Subarnarekha
3. Gersoppa	Western Ghats	Netravati

In how many of the above rows is the given information correctly matched?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 40. Consider the following information:

Region	Name of the mountain range	Type of mountain
1. Central Asia	Vosges	Fold mountain
2. Europe	Alps	Block mountain
3. North America	Appalachians	Fold mountain
4. South America	Andes	Fold mountain

In how many of the above rows is the given information correctly matched?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 41. The organisms "Cicada, Froghopper and Pond skater" are:
  - (a) Birds
- (b) Fish
- (c) Insects
- (d) Reptiles
- 42. Consider the following statements:

**Statement-I:** Many chewing gums found in the market are considered a source of environmental pollution.

**Statement-II:** Many chewing gums contain plastic as gum base.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 43. Consider the following pairs:

Country	Animal found in its natural habitat
1. Brazil	Indri
2. Indonesia	Elk
3 Madagascar	Bonobo

How many of the pairs given above are correctly matched?

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

- 44. Consider the following statements regarding World Toilet Organization :
  - 1. It is one of the agencies of the United Nations.
  - 2. World Toilet Summit, World Toilet Day and World Toilet College are the initiatives of this organization, to inspire action to tackle the global sanitation crisis.
  - 3. The main focus of its function is to grant funds to the least developed countries and developing countries to achieve the end of open defecation.

Which of the statements given above is/are correct?

- (a) 2 only
- (b) 3 only
- (c) 1 and 2
- (d) 2 and 3
- 45. Consider the following statements:
  - 1. Lions do not have a particular breeding season.
  - 2. Unlike most other big cats, cheetahs do not roar.
  - 3. Unlike male lions, male leopards do not proclaim their territory by scent marking.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only.
- (c) 1 and 3 only
- (d) 1,2 and 3
- 46. Which one of the following is the correct description of "100 Million Farmers"?
  - (a) It is a platform for accelerating the transition towards food and water systems that are net-zero (carbon), nature-positive and that aims to increase farmer resilience.
  - (b) It is an international alliance and a network of individuals and farming organisations interested in supporting and strengthening the development of the organic animal husbandry.
  - (c) It is a digital platform fully integrated with service providers and built on blockchain that lets buyers, sellers and third parties trade fertilizers quickly and securely.
  - (d) It is a platform with the mission of encouraging the farmers to form Farmer Product Organisations or Agribusiness Consortiums, thus facilitating the access to global open markets to sell their products.
- 47. Consider the following:
  - 1. Battery storage
  - 2. Biomass generators
  - 3. Fuel cells
  - 4. Rooftop solar photovoltaic units

How many of the above are considered "Distributed Energy Resources"?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 48. Which one of the following shows a unique relationship with an insect that has coevolved with it and that is the only insect that can pollinate this tree?
  - (a) Fig
- (b) Mahua
- (c) Sandalwood
- (d) Silk cotton
- 49. Consider the following:
  - 1. Butterflies
- 2. Fish
- 3. Frogs

How many of the above have poisonous species among them?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 50. Consider the following:
  - 1. Cashew
- 2. Papaya
- 3. Red sanders

How many of the above trees are actually native to India?

- (a) Only one
- (b) Only two
- (c) All three
- (d) None
- 51. Consider the following statements:

**Statement-I:** There is instability and worsening security situation in the Sahel region.

**Statement-II:** There have been military takeovers/coups d'etat in several countries of the Sahel region in the recent past.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 52. Consider the following statements:

**Statement-I:** India does not import apples from the United States of America.

**Statement-II:** In India, the law prohibits the import of Genetically Modified food without the approval of the competent authority.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct.
- 53. With reference to the Speaker of the Lok Sabha, consider the following statements:

While any resolution for the removal of the Speaker of the Lok Sabha is under consideration

- 1. He/She shall not preside.
- 2. He/She shall not have the right to speak.
- 3. He/She shall not be entitled to vote on the resolution in the first instance.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1, 2 and 3
- 54. With reference to the Indian Parliament, consider the following statements:
  - 1. A bill pending in the Lok Sabha lapses on its dissolution.
  - A bill passed by the Lok Sabha and pending in the Rajya Sabha lapses on the dissolution of the Lok Sabha.

3. A bill in regard to which the President of India notified his/her intention to summon the Houses to a joint sitting lapses on the dissolution of the Lok Sabha.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 2 and 3
- (d) 3 only
- 55. With reference to the Parliament of India, consider the following statements:
  - 1. Prorogation of a House by the President of India does not require the advice of the Council of Ministers.
  - 2. Prorogation of a House is generally done after the House is adjourned sine die but there is no bar to the President of India prorogating the House which is in session.
  - 3. Dissolution of the Lok Sabha is done by the President of India who, save in exceptional circumstances, does so on the advice of the Council of Ministers.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2
- (c) 2 and 3
- (d) 3 only
- 56. Consider the following statements:

**Statement-I:** The European Parliament approved The Net-Zero Industry Act recently.

**Statement-II:** The European Union intends to achieve carbon neutrality by 2040 and therefore aims to develop all of its own clean technology by that time.

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 explains Statement-I.
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-II is incorrect, but Statement-II is correct
- 57. Consider the following statements:

**Statement-I:** Recently, Venezuela has achieved rapid recovery from its economic crisis and succeeded in preventing its people from fleeing/emigrating to other countries. **Statement-II:** Venezuela has the world's largest oil reserves.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 58. With reference to the Digital India Land Records Modernisation Programme, consider the following statements:
  - 1. To implement the scheme, the Central Government provides 100% funding.
  - 2. Under the Scheme, Cadastral Maps are digitised.
  - 3. An initiative has been undertaken to transliterate the Records of Rights from local language to any of the languages recognized by the Constitution of India.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1,2 and 3
- 59. With reference to the 'Pradhan Mantri Surakshit Matritva Abhiyan', consider the following statements:
  - This scheme guarantees a minimum package of antenatal care services to women in their second and third trimesters of pregnancy and six months postdelivery health care service in any government health facility.
  - 2. Under this scheme, private sector health care providers of certain specialities can volunteer to provide services at nearby government health facilities.

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
- 60. With reference to the Pradhan Mantri Shram Yogi Maan-dhan (PM-SYM) Yojana, consider the following statements:
  - 1. The entry age group for enrolment in the scheme is 21 to 40 years.
  - 2. Age specific contribution shall be made by the beneficiary.
  - 3. Each subscriber under the scheme shall receive a minimum pension of ₹3,000 per month after attaining the age of 60 years.
  - 4. Family pension is applicable to the spouse and unmarried daughters.

Which of the statements given above is/are correct?

- (a) 1,3 and 4
- (b) 2 and 3 only
- (c) 2 only
- (d) 1, 2 and 4
- 61. Consider the following statements regarding 'Nari Shakti Vandan Adhiniyam':
  - Provisions will come into effect from the 18<sup>th</sup> Lok Sabha.
  - This will be in force for 15 years after becoming an Act.
  - 3. There are provisions for the reservation of seats for Scheduled Castes Women within the quota reserved for the Scheduled Castes.

Which of the statements given above are correct?

- (a) 1,2 and 3
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1 and 3 only.
- 62. Which of the following statements about 'Exercise Mitra Shakti-2023' are correct?
  - 1. This was a joint military exercise between India and Bangladesh.
  - 2. It commenced in Aundh (Pune).
  - 3. Joint response during counter-terrorism operations was a goal of this operation.
  - 4. Indian Air Force was a part of this exercise.

Select the answer using the code given below:

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 1,3 and 4
- (d) 2,3 and 4

- 63. A Writ of Prohibition is an order issued by the Supreme Court or High Courts to:
  - (a) a government officer prohibiting him from taking a particular action.
  - (b) the Parliament Legislative Assembly to pass a law on Prohibition.
  - (c) the lower court prohibiting continuation of proceedings in a case.
  - (d) the Government prohibiting it from following an unconstitutional policy.
- 64. Consider the following statements:
  - It is the Governor of the State who recognizes and declares any community of that State as a Scheduled Tribe.
  - 2. A community declared as a Scheduled Tribe in a State need not be so in another State.

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
- 65. With reference to Union Budget, consider the following statements:
  - 1. The Union Finance Minister on behalf of the Prime Minister lays the Annual Financial Statement before both the Houses of Parliament.
  - 2. At the Union level, no demand for a grant can be made except on the recommendation of the President of India.

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. Who of the following is the author of the books "The India Way" and "Why Bharat Matters"?
  - (a) Bhupender Yadav
- (b) Nalin Mehta
- (c) Shashi Tharoor
- (d) Subrahmanyam Jaishankar
- 67. Consider the following pairs:

Country	Reason for being in the news
1. Argentina	Worst economic crisis
2. Sudan	War between the country's regular army and paramilitary forces
3. Turkey	Rescinded its membership of NATO

How many of the pairs given above are correctly matched?

- (a) Only one pair
- (b) Only two pairs
- (c) All three pairs
- (d) None of the pairs
- 68. Consider the following statements:

**Statement-I:** Sumed pipeline is a strategic route for Persian Gulf oil and natural gas shipments to Europe.

**Statement-II:** Sumed pipeline connects the Red Sea with the Mediterranean Sea.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is 'incorrect, but Statement-II is correct

- 69. Consider the following statements:
  - 1. The Red Sea receives very little precipitation in any form.
  - 2. No water enters the Red Sea from rivers.

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
- 70. According to the Environmental Protection Agency (EPA), which one of the following is the largest source of sulphur dioxide emissions?
  - (a) Locomotives using fossil fuels
  - (b) Ships using fossil fuels
  - (c) Extraction of metals from ores
  - (d) Power plants using fossil fuels
- 71. Who was the Provisional President of the Constituent Assembly before Dr. Rajendra Prasad took over?
  - (a) C. Rajagopalachari
  - (b) Dr. B.R. Ambedkar
  - (c) T.T. Krishnamachari
  - (d) Dr. Sachchidananda Sinha
- 72. With reference to the Government of India Act, 1935, consider the following statements:
  - 1. It provided for the establishment of an All India Federation based on the union of the British Indian Provinces and Princely States.
  - Defence and Foreign Affairs were kept under the control of the federal legislature.

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. Which one of the following is a work attributed to playwright Bhasa?
  - (a) Kavyalankara
- (b) Natyashastra
- (c) Madhyama-vyayoga (d) Mahabhashya
- 74. Sanghabhuti. an Indian Buddhist monk, who travelled to China at the end of the fourth century AD, was the author of a commentary on:
  - (a) Prajnaparamita Sutra
  - (b) Visuddhimagga
  - (c) Sarvastivada Vinaya
  - (d) Lalitavistara
- 75. Consider the following properties included in the World Heritage List released by UNESCO:
  - 1. Shantiniketan
  - 2. Rani-ki-Vav
  - 3. Sacred Ensembles of the Hoysalas
  - 4. Mahabodhi Temple Complex at Bodhgaya

How many of the above properties were included in 2023?

- (a) Only one
- (b) Only two
- (c) Only three
- (d) All four
- 76. As per Article 368 of the Constitution of India, the Parliament may amend any provision of the Constitution by way of:
  - 1. Addition
- 2. Variation 3. Repeal
- Select the correct answer using the code given below:
- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

- Consider the following countries:
  - 1. Italy
- 2. Japan
- Nigeria 3.
- 4. South Korea
- South Africa

Which of the above countries are frequently mentioned in the media for their low birth rates, or ageing population or declining population?

- (a) 1, 2 and 4
- (b) 1, 3 and 5
- (c) 2 and 4 only
- (d) 3 and 5 only
- Which of the following statements are correct in respect of a Money Bill in the Parliament?
  - 1. Article 109 mentions special procedure in respect of Money Bills.
  - 2. A Money Bill shall not be introduced in the Council of States.
  - 3. The Rajya Sabha can either approve the Bill or suggest changes but cannot reject it.
  - 4. Amendments to a Money Bill suggested by the Rajya Sabha have to be accepted by the Lok Sabha.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1, 2 and 3
- (d) 1, 3 and 4
- Which of the following is/are correctly matched in terms of equivalent rank in the three services of Indian Defence forces?

Army	Airforce	Navy		
1. Brigadier	Air Commodore	Commander		
2. Major General	Air Vice Marshal	Vice Admiral		
3. Major	Squadron Leader	Lieutenant		
		Commander		
4. Lieutenant Colonel	Group Captain	Captain		
4. Lieutenant Colonel	Group Captain	Captain		

Select the correct answer using the code given below:

- (a) 1 and 4
- (b) 1 and 3
- (c) 2,3 and 4
- (d) 3 only
- The North Eastern Council (NEC) was established by the North Eastern Council Act, 1971. Subsequent to the amendment of NEC Act in 2002, the council comprises which of the following members?
  - Governor of the Constituent State
  - Chief Minister of the Constituent State
  - 3. Three Members to be nominated by the President of India
  - 4. The Home Minister of India

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only
- (b) 1, 3 and 4 only
- (c) 2 and 4 only
- (d) 1,2,3 and 4
- Consider the following statemeths:

Statement-I: If the United States of America (USA) were to default on its debt, holders of US Treasury Bonds will not be able to exercise their claims to receive payment.

Statement-II: The USA Government debt is not backed by any hard assets, but only by the faith of the Government. 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 explains Statement-I
- (b) Both Statement-I and Statement--II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect, but Statement-II is correct
- 82. Consider the following statements:

**Statement-I:** Syndicated lending spreads the risk of borrower default across multiple lenders.

**Statement-II:** The syndicated loan can be a fixed amount/ lump sum of funds, but cannot be a credit line.

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 explains Statement-I
- (b) Both Statement-I and Statement-II are correct, but Statement-II does not explain Statement-I
- (c) Statement-I is correct, but Statement-II is incorrect
- (d) Statement-I is incorrect but Statement-II is correct
- 83. Consider the following statements in respect of the digital rupee:
  - 1. It is a sovereign currency issued by the Reserve Bank of India (RBI) in alignment with its monetary policy.
  - 2. It appears as a liability on the RBI's balance sheet.
  - 3. It is insured against inflation by its very design.
  - 4. It is freely convertible against commercial bank money and cash.

Which of the statements given above are correct?

- (a) 1 and 2 only
- (b) 1 and 3 only
- (c) 2 and 4 only
- (d) 1, 2 and 4
- 84. With reference to ancient India, Gautama Buddha was generally known by which of the following epithets?
  - 1. Nayaputta 2. Shakyamuni 3. Tathagata Select the correct answer using the code given below:
  - (a) 1 only
  - (b) 2 and 3 only
  - (c) 1, 2 and 3
- (d) None of the above are epithets of Gautama Buddha 85. Consider the following information.

Archaeological Site	State	Description
1. Chandraketugarh	Odisha	Trading Port town
2. Inamgaon	Maharashtra	Chalcolithic site
3. Mangadu	Kerala	Megalithic site
4. Salihundam	Andhra Pradesh	Rock-cut cave shrines

In which of the above rows is the given information correctly matched?

- (a) 1 and 2
- (b) 2 and 3
- (c) 3 and 4
- (d) 1 and 4
- 86. Who of the following rulers of medieval India gave permission to the Portuguese to build a fort at Bhatkal?
  - (a) Krishnadevaraya
  - (b) Narasimha Saluva
  - (c) Muhammad Shah III
  - (d) Yusuf Adil Shah

- 87. With reference to revenue collection by cornwallis, consider the following statements:
  - 1. Under the Ryotwari Settlement of revenue collection, the peasants were exempted from revenue payment in case of bad harvests or natural calamities.
  - 2. Under the Permanent Settlement in Bengal, if the Zamindar failed to pay his revenues to the state, on or before the fixed date, he would be removed from his Zamindari.

Which of th'e statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 88. Consider the following statements:
  - 1. There are no parables in Upanishads.
  - 2. Upanishads were compose d earlier than the Puranas. Which of the statements given above is/are Correct?
  - (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 89. Consider the following statements:
  - 1. India is a member of the International Grains Council.
  - 2. A country needs to be a member of the International Grains Council for exporting or importing rice and wheat.

Which of the statements given above is/are correct?

- (a) lonly
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2
- 90. Which one of the following was the latest inclusion in the Intangible Cultural Heritage List of UNESCO?
  - (a) Chhau dance
- (b) Durga puja
- (c) Garba dance
- (d) Kumbh mela
- 91. How many Delimitation Commissions have been constituted by the Government of India till December 2023?
  - (a) One
- (b) Two
- (c) Three
- (d) Four
- 92. The Constitution (71<sup>th</sup> Amendment) Act, 1992 amends the Eighth Schedule to the Constitution to include which of the following languages?
  - 1. Konkani
- 2. Manipuri
- 3. Nepali
- 4. Maithili

Select the correct answer using the code given below:

- (a) 1, 2 and 3
- (b) 1, 2 and 4
- (c) 1, 3 and 4
- (d) 2, 3 and 4
- 93. Consider the following pairs:

Party	Its Leader
1.Bharatiya Jana Sangh	Dr. Shyama Prasad Mukherjee
2. Socialist Party	C. Rajagopalachari
3.Congress for Democracy	Jagjivan Ram
4. Swatantra Party	Acharya Narendra Dev

How many of the above are correctly matched?

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

- 94. Which of the following statements are correct about the Constitution of India?
  - 1. Powers of the Municipalities are given in Part IX A of the Constitution.
  - Emergency provisions are given in Part XVIII of the Constitution.
  - 3. Provisions related to the amendment of the Constitution are given in Part XX of the Constitution.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1,2 and 3
- 95. Which one of the following statements is correct as per the Constitution of India?
  - (a) Inter-State trade and commerce is a State subject under the State List.
  - (b) Inter-State migration is a State subject under the State
  - (c) Inter-State quarantine is a Union subject under the Union List.
  - (d) Corporation tax is a State subject under the State List.
- 96. Under which of the following Articles of the Constitution of India, has the Supreme Court of India placed the Right to Privacy?
  - (a) Article 15
- (b) Article 16
- (c) Article 19
- (d) Article 21
- 97. What are the duties of the Chief of Defence Staff (CDS) as Head of the Department of Military Affairs?
  - 1. Permanent Chairman of Chiefs of Staff Committee
  - Exercise military command over the three Service Chiefs

 Principal Military Advisor to Defence Minister on all tri-service matters

Select the correct answer using the code given below:

- (a) 1,2 and 3
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) 1 and 3 only
- 98. Operations undertaken by the Army towards upliftment of the local population in remote areas to include addressing of their basic needs is called:
  - (a) Operation Sankalp
- (b) Operation Maitri
- (c) Operation Sadbhavana(d) Operation Madad
- 99. The longest border between any two countries in the world is between:
  - (a) Canada and the United States of America.
  - (b) Chile and Argentina
  - (c) China and India
  - (d) Kazakhstan and Russian Federation
- 100. Which of the following statements about the Ethics Committee in the Lok Sabha are correct?
  - 1. Initially it was an ad-hoc Committee.
  - 2. Only a Member of the Lok Sabha can make a complaint relating to unethical conduct of a member of the Lok Sabha.
  - 3. This Committee cannot take up any matter which is sub-judice.

Select the answer using the code given below:

- (a) 1 and 2 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

## **HINTS & EXPLANATIONS**

- (d) According to WHO, "The average number of children a
  hypothetical cohort of women would have at the end of their
  reproductive period if they were subject during their whole
  lives to the fertility rates of a given period and if they were not
  subject to mortality. It is expressed as children per woman."
  The correct answer is (d).
- 2. (c) All Scheduled Commercial Banks (excluding RRBs) and Primary Dealers (PDs) maintaining Subsidiary General Ledger (SGL) and Current accounts with RBI at Mumbai will be eligible to participate in the Repo auctions. As per definition of Primary dealers by RBI- "A non-bank entity applying for permission to undertake PD business shall obtain Certificate of Registration as an NBFC under Section 45-IA of the RBI Act, 1934 from the Department of Non-Banking Supervision, Reserve Bank of India." Thus, non-banking financial companies can access the liquidity adjustment facility of the Reserve Bank of India. Thus, Statement 1 is correct.
  - Foreign Institutional Investors (FIIs) are allowed to invest in Government Securities (G-Secs) in India. Thus, Statement 2 is correct.
  - Stock Exchanges in India can indeed offer separate trading platforms for debt instruments (bonds and other

- debt securities). This provides a mechanism for trading debt securities separately from equity shares. Thus, Statement 3 is correct. Hence the correct answer is (c).
- 3. (d) Insurance companies in India invest a substantial portion of their collected premiums into corporate bonds and government securities. Pension funds also participate in the bond market, focusing on generating returns and ensuring stability for payouts. These funds can invest in bonds rated 'A' or higher, with a cap of 10% for bonds rated between 'A' and 'AA-'. The Indian government has recently encouraged greater retail investor participation in the bond market, allowing individuals to invest in both corporate bonds and government securities directly or indirectly. Hence the correct answer is (d).
- 4. (d) Financial instruments are intangible assets offering future benefits through claims to future cash, representing legal or contractual monetary value or ownership. They are traded in financial markets, where their prices are determined by market forces. Correct examples include ETFs, which track asset performance and trade like stocks, and currency swaps, financial derivatives exchanging loan principals in different currencies to hedge risk or secure better rates. Motor vehicles are not financial instruments; they are tangible transportation assets, not traded as securities or derivatives. Hence the correct answer is (d).

- 5. (b) Storage of agricultural produce is a service activity and belongs to the tertiary sector, not the secondary sector, which processes raw materials. Dairy farming correctly falls under the primary sector, as it involves the production of raw materials (milk). Mineral exploration is part of the primary sector, not the tertiary sector, as it involves finding mineral deposits. Weaving cloth is correctly categorized in the secondary sector, which deals with processing raw materials into finished goods, such as converting cotton or wool into fabric. Hence the correct answer is (b).
- 6. (c) Sustainable Aviation Fuel (SAF) is derived from renewable biomass and waste resources, offering similar performance to petroleum-based jet fuel but with significantly lower carbon emissions. Key sources include corn grain, oil seeds, algae, fats, oils, greases, agricultural and forestry residues, wood mill waste, municipal solid waste, wet wastes, and dedicated energy crops. Producing SAF can create economic opportunities in farming communities, enhance environmental quality, and potentially improve aircraft performance. Hence the correct answer is (c).
- 7. (b) A plough, as a durable item used over many production cycles, is classified as fixed capital, similar to a computer, which is used for several years in production. In contrast, working capital includes resources consumed in day-to-day operations, such as raw materials, wages, and operational expenses. For example, yarn used by a weaver and petrol used in production are considered working capital, as they are consumed quickly and need regular replenishment. Hence the correct answer is (b).
- 8. (c) The most appropriate word/phrase to describe the given concept is 'metaverse'. The metaverse is a convergence of physical and virtual spaces accessed via immersive technologies like virtual, augmented, and mixed reality. Seen as the next internet iteration, it is a persistent, shared 3D virtual world where avatars represent users, enabling them to move seamlessly between experiences. In this space, users can carry their identities and monetary assets, making the metaverse a collective digital environment integrating various aspects of daily life into a cohesive virtual experience. Hence the correct answer is (c).
- 9. (d) The RBI mandates a minimum capital requirement of ₹5 billion for wholly owned banking subsidiaries, applicable to both new foreign banks in India and existing foreign banks converting their branches.
  - As per the Scheme for setting up of wholly owned subsidiaries by foreign banks in India, at least 50% of the directors must be Indian nationals, NRIs, or PIOs, with the stipulation that one-third of the directors are Indian nationals residing in India. However, PIOs are not considered Indian nationals. Hence both statements are wrong.
- (a) CSR activities under Schedule VII of the Companies Act, 2013 focus on societal benefits rather

- than corporate gain. These include initiatives in health, sanitation, education, environment, sports, heritage, art, rural development, slum area improvement, disaster management, old age homes, day care centers, and reducing inequalities for socially and economically backward groups.
- Companies meeting specified criteria must allocate at least 2% of their average net profits over three years to CSR, ensuring contributions towards community welfare and sustainable development. Thus, statement 1 is correct while statement 2 is not correct. Hence the correct answer is (a).
- 11. (b) Radioisotope thermoelectric generators (RTGs) harness heat from the natural decay of plutonium-238 to produce electricity via thermocouples. Unlike nuclear reactors, they do not rely on controlled fission reactions.
  - RTGs are essential for spacecraft and remote installations where solar power is not viable, enduring harsh environments for decades with minimal maintenance. They have powered over two dozen U.S. space missions since 1961, providing reliable, long-term energy solutions.
  - Plutonium-238, a by product of nuclear weapons development, serves as the fuel source for RTGs, steadily emitting heat that thermocouples convert into electrical power. This technology plays a crucial role in deep space exploration and missions where consistent, durable power sources are essential. Thus, statement 1 is incorrect. **Hence the correct answer is (b).**
- 12. (d) Statement I is incorrect because giant stars have shorter lifetimes compared to dwarf stars. Their massive cores burn nuclear fuel more rapidly, leading to a quicker depletion of resources and thus a shorter lifespan.
  - Giant stars, with higher mass, possess hotter, denser cores leading to intense nuclear reactions. This boosts their brightness and energy output significantly compared to stars with lower mass. Thus, Statement II is correct.
- 13. (a) Nitric oxide (NO) is synthesized from L-arginine by nitric oxide synthase (NOS) primarily in the endothelium of blood vessels. It acts as a potent vasodilator, relaxing arterial smooth muscles to enhance blood flow and support cardiovascular health. NO also functions as a neurotransmitter, influencing neuronal activity and contributing to processes like learning. Hence the correct answer is (a).
- 14. (c) Radars detect and locate objects using radio waves, essential in aviation, maritime navigation, weather forecasting, and military applications. They precisely track distance, speed, and direction over long distances and in various conditions. At airports, radars can identify narcotics on passengers and aircraft. Weather radars, especially Doppler types, monitor precipitation and predict weather patterns. Additionally, radar technology tracks animal migration, particularly birds and bats, by monitoring their flight patterns and migration routes over large distances. Thus in all three activities radars can be used.

- 15. (d) Fifth-generation fighters, developed in the early 21st century, feature technologies like stealth, super cruise, advanced avionics, and networked data fusion for enhanced situational awareness. Notable examples include the Lockheed Martin F-22 Raptor, F-35 Lightning II, Chengdu J-20, and Sukhoi Su-57.
  - In contrast, the Rafale and Tejas MK-1 are 4.5th-generation fighters, developed by France and India respectively, while the MiG-29 is a **fourth-generation** fighter developed by Russia. Thus, the correct answer is (d).
- 16. (d) Hydrogels, water-absorbent crosslinked polymer networks, are valuable in biotechnology and soft robotics due to their biocompatibility, flexibility, and responsiveness to environmental changes. They are extensively used in medical applications like wound dressings, drug delivery systems, and tissue engineering. In drug delivery, hydrogels encapsulate and release drugs in a controlled manner, leveraging their hydrophilic nature.
  - Additionally, they enhance mobile air-conditioning by managing humidity and improve industrial lubricants by reducing friction, controlling viscosity, and enhancing thermal stability.
- 17. (d) The exhaust air from Fuel Cell Electric Vehicles (FCEVs) powered by hydrogen consists of pure water vapor. FCEVs emit only water vapor, making them locally emission-free and contributing to cleaner air in cities. Hence, the correct answer is (d).

SOURCE https://www.thehindu.com/news/national/indianoilunveils-indias-first-green-hydrogen-run-bus-that-emits-just-water/ article67344306.ece

18. (c) The term "pumped-storage hydropower" pertains to longterm energy storage. This involves a hydroelectric storage system using two water reservoirs situated at different heights. Power is generated when water flows from the higher reservoir to the lower one through a turbine (discharge). To restore the system, energy is needed to pump the water back up to the upper reservoir (recharge). Hence, the correct answer is (c).

https://www.energy.gov/eere/water/pumped-storagehydropower

19. (d) "Membrane Bioreactors" are frequently mentioned in relation to wastewater treatment technologies. These systems integrate biological treatment, which utilizes microorganisms, with membrane filtration to effectively eliminate contaminants from wastewater. The membranes serve as barriers, permitting the passage of clean water while retaining suspended solids and microorganisms. Membrane bioreactors are extensively employed in the treatment of both domestic and industrial wastewater. Hence, the correct answer is (d).

source https://pib.gov.in/PressReleaseIframePage. aspx?PRID=1759750

20. (c) The term "Collateralized Borrowing and Lending Obligation (CBLO)" refers to a type of money market instrument. In CBLO transactions, a borrower pledges collateral (usually government securities) to secure a loan of cash from a lender. These short-term instruments are designed

- to enable borrowing and lending in a fully secured manner, primarily within India's financial markets. Hence, the correct answer is (c).
- 21. (a) Donyi Polo Airport in Itanagar, the first Greenfield airport in Arunachal Pradesh, was developed on over 690 acres at a cost of more than Rs. 640 crores and inaugurated by Prime Minister Modi in 2022. Thus, Statement 1 is correct.
  - Kushinagar International Airport, a Greenfield airport, was inaugurated by Prime Minister Narendra Modi in October 2021. Thus, Statement 2 is correct.
  - Vijayawada International Airport is not a Greenfield project. Thus, Statement 3 is incorrect. Hence correct answer is (a).

Government of India has accorded 'In-Principle' approval for setting up of 21 new Greenfield Airports namely, Mopa in Goa, Navi Mumbai, Shirdi and Sindhu durg in Maharashtra, Kalaburagi, Vijayapura, Hassan and Shivamogga in Karnataka, Dabra (Gwalior) in Madhya Pradesh, Kushinagar and Noida (Jewar) in Uttar Pradesh, Dholera and Hirasar in Gujarat, Karaikal in Puducherry, Dagadarthi, Bhogapuram and Orvakal (Kurnool) in Andhra Pradesh, Durgapur in West Bengal, Pakyong in Sikkim, Kannur in Kerala and Hollongi (Itanagar) in Arunachal Pradesh across the country. Out of these, 11 Greenfield airports viz. Durgapur, Shirdi, Kannur, Pakyong, Kalaburagi, Orvakal (Kurnool), Sindhudurg, Kushinagar, Itanagar, Mopa and Shivamogga have been operationalised.

SOURCE https://pib.gov.in/PressReleasePage. aspx?PRID=1943211

(a) Water vapour is a variable gas in the atmosphere, which decreases with altitude. In the warm and wet tropics, it may account for four per cent of the air by volume, while in the dry and cold areas of desert and polar regions, it may be less than one per cent of the air. Water vapour also decreases from the equator towards the poles. Hence correct answer is (a).

**NOTE** Water vapour also absorbs parts of the insolation from the sun and preserves the earth's radiated heat. It thus, acts like a blanket allowing the earth neither to become too cold nor too hot. Water vapour also contributes to the stability and instability in the air..

\*\*SOURCE https://www.ncert.nic.in/ncerts/l/kegy208.pdf

(d) Marine west coast climate is located poleward from the Mediterranean climate on the west coast of the continents. The main areas are: Northwestern Europe, west coast of North America, north of California, southern Chile, southeastern Australia and New Zealand. Due to marine influence, the temperature is moderate and in winter, it is warmer than for its latitude. The mean temperature in summer months ranges from 15°-20°C and in winter 4°-10°C. The annual and daily ranges of temperature are small. Precipitation occurs throughout the year. Precipitation varies greatly from 50-250cm. Hence correct answer is (d).

SOURCE https://ncert.nic.in/ncerts/l/kegy212.pdf

24. (c) The rotation of the earth about its axis affects the direction of the wind. This force is called the Coriolis force. It deflects the wind to the right direction in the northern hemisphere and to the left in the southern hemisphere. The deflection is more when the wind velocity is high.

The Coriolis force is directly proportional to the angle of latitude. It is maximum at the poles and is absent at the equator. Thus both statements are correct.

https://ncert.nic.in/ncerts/l/kegy210.pdf

25. (d) On 21st June, the Northern Hemisphere is tilted towards the sun. The rays of the sun fall directly on the Tropic of Cancer. As a result, these areas receive more heat. Sunlight of more than 12 hours is received at tropic of cancer. The North Pole is inclined towards the sun and the places beyond the Arctic Circle experience continuous daylight for about six months. Since a large portion of the Northern Hemisphere is getting light from the sun, it is summer in the regions north of the equator. The longest day and the shortest night at these places occur on 21st June. Thus, Option 2 and 4 are correct.

Table: Length of the Day in Hours and Minutes on Winter and Summer Solstices in the Northern Hemisphere.

Latitude	0°	20°	40°	60°	90°
December 22	12h 00m	10h 48m	9h 8m	5h 33m	0
June 21	12 h	13h 12m	14h 52m	18h 27m	6 months

SOURCE

https://ncert.nic.in/ncerts/l/kegy209.pdf

https://ncert.nic.in/textbook/pdf/fess203.pdf

26. (b) The Congo Basin is home to the world's largest tropical peatlands. The peat swamp forest of the Congo Basin stores around 29 billion tons of carbon – approximately equivalent to three years' worth of global greenhouse gas emissions - while the Basin as a whole absorbs nearly 1.5 billion tons of carbon dioxide a year. The Basin stretches across six countries- Cameroon, Central African Republic, Democratic Republic of the Congo, Congo, Equatorial Guinea and Gabon. The Congo Basin is one of the world's last regions that absorbs more carbon than it emits. Its possible destruction can have detrimental effect on the global climate. Thus, the correct answer is (b).

**SOURCE** https://www.unep.org/news-and-stories/story/ critical-ecosystems-congo-basin-peatlands#:~:text=The%20 peat%20swamp%20forest%20of,of%20carbon%20dioxide%20a%20 year%20.

27. (d) Perfluoroalkyl and polyfluoroalkyl substances (PFAS) are man-made chemicals that are prevalent in the environment, including in drinking water, food, and food packaging materials. Chemically, PFAS can vary significantly, but they all share a strong carbon-fluorine bond, making them highly resistant to degradation. Due to their chemical stability and ubiquitous environmental presence, prolonged exposure to PFAS results in bioaccumulation in animals. Thus all statements are correct.

- 28. (b) Option 1, 3 and 5 are corect.
  - A parasitoid is an organism whose offspring develop either on or inside a host organism, ultimately leading to the host's death. Parasitoids share traits with both predators and parasites.
  - Examples of parasitoids are various species of wasps, tachinid flies, carabid beetles, and gordian worms.
  - While some centipedes are predators, they do not function as parasitoids.
  - Notably, termites are unique among most insects in that they have no known parasitoids.
- (c) The Fabaceae, also known as the Leguminosae, is a significant family of flowering plants commonly referred to as legumes, peas, or beans. Groundnuts, which are legumes, are part of this family and are unique in that they develop underground. Horsegram, another member of the Fabaceae family, is a promising grain legume known for its high nutritional value, medicinal properties, and ability to thrive in challenging environmental conditions. Soybeans, classified as dicotyledonous flowering plants (eudicots), also belong to the Fabaceae family. Thus all three belong to the pea family.
- (c) The Indian flying fox (Pteropus giganteus) is generally considered a vermin as they raid orchards. The Indian flying fox comes under schedule II of WPA 1972. As per Section 62 of Act Central Government may, by notification, declare any wild animal [specified in Schedule II] to be vermin for any area and for such period as may be specified for any period of time speicfied in the Notification. Thus, Statement 1 is correct.
  - Indian Flying Fox also called the Great Indian Fruit Bat, as it eats fruits, feeding on the juice. It helps in seed dispersion and pollination, making them an integral part of the ecosystem. Hence, statement 2 is incorrect.

https://www.indiacode.nic.in/ bitstream/123456789/1726/1/a1972-53.pdf

31. (d) Here, option (d) is the correct answer.

Consider that the isolation received at the top of the atmosphere is 100 per cent. While passing through the atmosphere some amount of energy is reflected, scattered and absorbed. Only the remaining part reaches the earth's surface. Roughly 35 units are reflected back to space even before reaching the earth's surface. Of these, 27 units are reflected back from the top of the clouds and 2 units from the snow and ice-covered areas of the earth. The reflected amount of radiation is called the albedo of the earth.

The remaining 65 units are absorbed, 14 units within the atmosphere and 51 units by the earth's surface. The earth radiates back 51 units in the form of terrestrial radiation. Of these, 17 units are radiated to space directly and the remaining 34 units are absorbed by the atmosphere. Thus, the atmosphere is heated more by terrestrial radiation than by incoming solar radiation. Hence, Statement I is incorrect.

The long wave radiation is absorbed by atmospheric gases particularly by carbon dioxide and the other greenhouse gases as they are good absorbers of long wave radiation. Thus, Statement II is correct.

https://ncert.nic.in/ncerts/l/kegy209.pdf

32. (a) • The thickness of the troposphere varies with latitude. It is thickest at the equator and thinnest at the poles. This variation is due to the differences in temperature and, consequently, the density of the air at different latitudes. Warm air is less dense and causes the troposphere to expand, making it thicker at the equator. Thus, Statement 1 is correct.

- At the equator, the intense solar heating causes strong convectional currents. These currents transport heat to great heights, contributing to the greater thickness of the troposphere in this region. Thus, Statement II is correct.
- The strong convectional currents at the equator are the primary reason for the increased thickness of the troposphere compared to the poles. Hence correct answer is (a).

SOURCE

https://www.ncert.nic.in/ncerts/l/kegy208.pdf

33. (d) A volcano is a site where gases, ash, and molten rock, known as lava, are expelled onto the Earth's surface. The substances that emerge include lava flows, pyroclastic debris, volcanic bombs, ash, dust, and gases like nitrogen compounds,

- sulfur compounds, and small quantities of chlorine, hydrogen, and argon. Hence correct answer is (d).
- 34. (a) The isotherms are generally parallel to the latitude. The deviation from this general trend is more pronounced in January than in July, especially in the northern hemisphere. In the northern hemisphere, the land surface area is much larger than the southern hemisphere. Hence, the effects of land mass and the ocean currents are well pronounced. In January the isotherms deviate to the north over the ocean and to the south over the continent. This can be seen on the North

Atlantic Ocean. Thus, statement 1 is correct.

The presence of warm ocean currents, Gulf Stream and North Atlantic drift, make the Northern Atlantic Ocean warmer and the isotherms bend towards the north. Over the land the temperature decreases sharply, and the isotherms bend towards south in Europe. Thus, statement 2 is incorrect. Hence, the correct answer is (a).

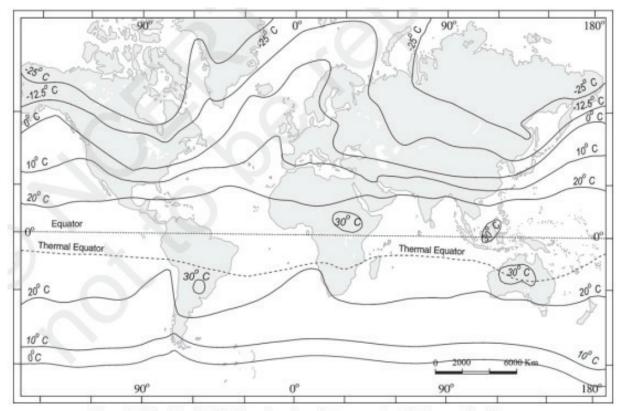


Figure 9.4 (a): The distribution of surface air temperature in the month of January

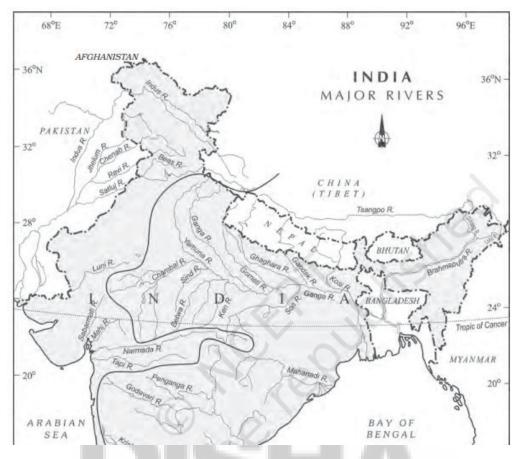
SOURCE

https://ncert.nic.in/ncerts/l/kegy209.pdf

35. (c) Cocoa, essential for chocolate manufacturing, is economically vital for many nations. Africa dominates global cocoa production, accounting for 60% of the world's supply. Production is primarily influenced by the region's climate, soil quality, and weather patterns.

Côte d'Ivoire is the world's top cocoa producer, with an annual output of 2,200,000 tons, followed by Ghana, Indonesia, Nigeria, and Ecuador. Hence, the correct answer is (c).

36. (b) The correct sequence of Himalayan rivers joining the Ganga downstream of Prayagraj from West to East is Gomati – Ghaghara – Gandak – Kosi. Hence, Option (b) is correct.



37. (a) Weathering is the action of weather and climate elements on earth materials, divided into three major types: (i) chemical; (ii) physical or mechanical; and (iii) biological.

Chemical weathering processes break down rocks through chemical reactions involving oxygen, water (from rainfall), soil water, and other acids, reducing them to a fine clastic state. These reactions are accelerated by the presence of water, air (oxygen and carbon dioxide), and heat. **Hence, Statement I is correct.** 

Normal rain has a pH of around 5.6, making it slightly acidic due to the dissolution of carbon dioxide (CO2) forming weak carbonic acid. Thus, Statement II is correct and supports Statement I.

As rain falls, it absorbs oxygen, leading to higher oxygen concentrations in the rain drops. Consequently, rainwater contains atmospheric oxygen. Thus, **Statement III is correct.** Therefore, rainfall provides water, CO2, and oxygen, which facilitate the chemical weathering of rocks.

## Thus, Statement II and Statement III are both correct and explain statement I.

38. (b) North sea in northern Europe is part of the Atlantic ocean. It is bordered by the United Kingdom and Norway to the west, Denmark to the south, Germany, the Netherlands, Belgium, and France to the east, and the Faroe Islands and Norway's Svalbard archipelago to the north.

The North Sea connects to the Atlantic Ocean via the English Channel in the southwest and the Baltic Sea in the east via the Kattegat and Skagerrak straits. Hence the correct answer is (b).



**39. (a/b) st1 is wrong:** The Dhuandhar Falls is located on the Narmada River in Bhedaghat and is 30 meters high. The Dhuandhar falls is a waterfall in Jabalpur. Jabalpur is not in the Malwa region.

However, there is some debate among coaching institutes regarding the validity of statement1.

**st2 is correct :** Hundru Falls is created on the course of the Subarnarekha in Chotanagpur plateau.

- st3 is wrong: Gersoppa waterfall, also known as Jogada Gundi in the regional language, is situated in the Indian State of Karnataka created by the Sharavathi river. Netravati river originates in the Western Ghats in Bangrabalike forest Valley in Yellaner Ghats of Kudremukha range in Karnataka State. So depending on the validity of the statement 1, answer could be (a)/(b). we've to wait for official answer key.
- (b) Row 1 is incorrect: Block mountains form when large areas are broken and displaced vertically, with the uplifted sections known as horsts and the lowered sections called graben. The Vosges Mountain in Europe, rather than Central Asia, serves as an example of a block mountain system.
  - Row 2 is incorrect: The Alps, located in Europe, are among the youngest fold mountains, characterized by rugged relief and high conical peaks.
  - Row 3 is correct: The Appalachians in North America are among the oldest fold mountains in the world.
  - Row 4 is correct: The Andes, located in South America, are one of the youngest fold mountains.

Hence, Option (b) is the correct answer.

SOURCE https://ncert.nic.in/ncerts/l/fess206.pdf

- 41. (c) Cicadas, froghoppers, and pond skaters are all types of insects. Cicadas belong to a super family within the order Hemiptera (true bugs). Froghoppers, also known as the super family Cercopoidea, are a group of hemipteran insects in the suborder Auchenorrhyncha. Pond skaters are a family of insects within the order Hemiptera. Hence, Option (c) is the correct answer.
- 42. (a) Commercially produced chewing gum is based on a synthetic gum base, which is non-biodegradable. Therefore, chewing gum residue can be considered a harmful environmental pollutant. Thus, Statement I is correct. Chewing gum does contain plastic. The "gum base" listed in the ingredients is primarily composed of polyvinyl acetate, a non-biodegradable plastic that persists in the environment for a long time. Thus, chewing gum residue can be considered a harmful environmental pollutant. Thus, Statement II is correct.

#### Hence, Option (a) is the correct answer.

- 43. (d) The indri, an endangered species, is native to the remote regions of northeastern Madagascar.
  - Elk, a subspecies of red deer (Cervus elaphus), can be found in North America and the high mountains of Central Asia.
  - Bonobos inhabit the rainforests of the Congo Basin in Africa.

#### Hence all three pairs are correctly matched. Option d is the correct answer.

- 44. (a) The World Toilet Organization (WTO) is a global non-profit organization dedicated to improving toilet and sanitation conditions worldwide.
  - The World Toilet Organization is not an agency of the United Nations. Statement 1 is incorrect.
  - The World Toilet Organization organizes the World Toilet Summit and initiated the United Nations World Toilet Day. The WTO established World Toilet Day and the World Toilet Summit in 2001, and later founded the World Toilet College in 2005. Statement 2 is correct.

The WTO provides an international platform for various stakeholders, including toilet associations, governments, academic institutions, foundations, UN agencies, and corporate entities, to exchange knowledge and garner media and corporate support to promote clean sanitation and public health policies. Statement 3 is incorrect. Thus, Option (a) is the correct answer.

SOURCE https://worldtoilet.org/web-agency-gb-about-us/ https://www.un.org/en/about-us/un-system https://pib.gov.in/PressReleasePage.aspx?PRID=1977601

- 45. (a) Lions do not have a specific breeding season. Female lions cycle every 16 days throughout the year, remaining in estrus for four to eight days, indicating they are polyestrous and mate year-round. Statement 1 is correct.
  - Unlike other big cats such as lions, tigers, leopards, and jaguars, cheetahs do not roar. Instead, they growl when threatened and typically chirp, purr, and meow. Statement 2 is correct.
  - Lions proclaim their territory by roaring and by scent marking. Leopards also proclaim their territory by roaring and by scent marking. Both sexes use urine to mark their territories, and often after urinating a male will then scrape the ground to transfer the scent of his urine onto his feet to be carried during territorial boundary patrols. Statement 3 is incorrect.

#### Thus, Option (a) is the correct answer.

- (a) The World Economic Forum's initiative, 100 Million Farmers, is creating partnerships among governments, businesses, NGOs, and academic bodies to advance sustainable food systems. Their goal is to speed up the shift towards agricultural practices that support climate neutrality, biodiversity, and resilient farming communities. This initiative emphasizes the crucial role of food production and farmers in global efforts to address climate change and preserve natural environments, promoting widespread adoption of eco-friendly agricultural methods. Option (a) is the correct answer.
- (d) Distributed Energy Resources (DERs) encompass a range of small, modular power-generating technologies situated near the point of electricity consumption, such as in homes or businesses, rather than at large, central power plants. All of the given four units can be labelled as DER. Option (d) is the correct answer.
- (a) The banyan fig tree, Ficus microcarpa, is renowned for its aerial roots, which grow from its branches and eventually reach the ground. Additionally, the tree has a unique relationship with a wasp, the only insect capable of pollinating it, having coevolved together. Hence, Option (a) is correct.
- (c) Statement 1 is correct: Poisonous butterfly species -Monarch butterflies
  - Statement 2 is correct: Poisonous fish puffer fish.
  - Statement 3 is correct: Poison dart frog uses its brightly coloured skin to warn predators that it is unfit to eat.

#### Hence, Option (c) is correct.

- (a) Option 1 is wrong: Papaya originated from South Mexico and Costa Rica.
  - Option 2 is wrong: Cashew, native to Brazil, was introduced to the world by the Portuguese during the Age of Exploration.

- Option 3 is correct: Red Sanders is a tree species endemic to India, primarily found in the Eastern Ghats region. Hence, Option (a) is correct.
- 51. (a) The Sahel region of Africa is a 3,860-kilometre arc-like land mass lying to the immediate south of the Sahara Desert and stretching east-west across the breadth of the African continent. The Sahel region encompasses through parts of Mauritania, Mali, Burkina Faso, Niger, Nigeria, Chad, Sudan and Eritrea. Niger was frequently in news due to coups. Hence, both are right and statement II explains statement I.
- 52. (d) Statement 1 is wrong: India imports apples. Recently, India decided to remove additional duties on import of eight US products, including apples. The import of apples from USA was to the value of US\$ 5.27 million (4,486 Ton) in FY 2022-23.

**Statement 2 is correct:** Indian Customs can clear food products including Genetically Modified (GM) food products only after necessary approval/No Objection Certificate (NOC) by FSSAI. The Food Safety and Standards Act of 2006 prohibits import, manufacture, use or sale of GM food without FSSAI's approval.

- 53. (a) Statement 1 is correct: Person cannot be a judge in his own case.
  - **Statement 2 wrong:** It goes against the principle of natural justice. Person has the right to defend/speak.
  - Statement 3 wrong: he can vote in first instance. Hence, Option (a) is correct.

54. (b)

- Statement 1 is correct: Article 107 states that a bill originating in the Lok Sabha and pending there lapses upon the dissolution of the House.
- Statement 2 is correct: Article 107(5) specifies that a bill originating and passed in the Lok Sabha but pending in the Rajya Sabha also lapses upon the dissolution of the Lok Sabha.
- Statement 3 is wrong: Article 108(5) allows for a joint sitting of Parliament to pass a bill, even if the Lok Sabha has been dissolved after the President's notification for such a sitting. Hence, Option (b) is the correct answer.

55. (c)

- Statement 1 is wrong: The President summons and prorogue the Houses on the advice of the Prime Minister and council of ministers.
- Statement 2 is correct: Usually, within a few days after the House is adjourned sine die by the presiding officer, the President issues a notification for the prorogation of the session. However, the President can also prorogue the House while in session.
- Statement 3 is correct: Lok Sabha can be dissolved upon completion of five years, by the President on the advice of the Prime Minister, or if the President deems no viable government can be formed.

Hence, Option (c) is the correct answer.

- 56. (c)
  - Statement 1 is correct: The European Parliament has approved the Net-Zero Industry Act to boost the production of green technology in the EU.
  - Statement 2 is wrong: The goal is for Europe to make 40% of its own green technology by 2030 and to hold 15% of the global market for these technologies.

Hence, Option (c) is the correct answer.

- 57. (d)
  - **Statement 1 is wrong:** Venezuela continues to suffer from hyperinflation and riots to loot food from stores.
  - Statement 2 is correct: Venezuela has the largest amount of oil reserves in the world with more than 300 billion barrels in reserve. Saudi Arabia has the second-largest amount of oil reserves in the world with 297.5 billion barrels. Hence, Option (d) is the correct answer.

58. (d)

- Statement 1 is correct: Digital India Land Records Modernization Programme (erstwhile National Land Record Modernization Programme-) is a as a Central Sector Scheme i.e. 100% funding by the Centre. State government is not required to contribute money.
- Statement 2 and 3 are also right as per Government's India Yearbook. Hence, Option (d) is the correct answer.

59. (b)

- **Statement 1 is wrong:** Free Medical checkup, every ninth day of every month during pregnancy. it doesn't mention post-delivery health care.
- Statement 2 is correct: Woman can get this checkup both in government Hospital as well as private clinics. Hence, Option (b) is the correct answer.

60. (b)

- **Statement 1 is wrong:** Entry age between 18 and 40 years. Option (a) and (d) eliminated.
- Statement 3 is right: Assured monthly pension of Rs. 3,000 from the age of 60, So by elimination the **correct answer is (b).**
- 61. (c) Statement 1 is wrong: Provision did not come into effect from the 18th Lok Sabha (2024). According to the provisions of the Bill, the reservation is set to be enforced following the publication of a new census and the completion of the delimitation exercise. Furthermore, it's important to note that for the bill to be fully ratified, it necessitates approval from a minimum of 50% of the states. Thus, Statement 1 is wrong and by elimination of options containing this statement, we arrive at the correct answer (c).
- 62. (d) **Statement 1 is wrong:** Because Exercise Mitra Shakti-2023 was a joint military Exercise between **India and Sri Lanka**. Thus, Statement 1 is wrong and by elimination of options containing this statement, we arrive at the **correct answer (d)**.

- 63. (c) **Option (c) is correct:** The writ of prohibition is a legal remedy that is used to prevent a lower court or tribunal from exceeding its jurisdiction or acting outside the scope of its authority.
- 64. (b)
  - Statement 1 is wrong: Article 342(1): The President with respect to any State/UT (after consultation with the Governor in case of state) may specify the tribes/tribal communities/part of or groups within tribes/tribal communities as a Scheduled Tribe in that State/UT.
  - Statement 2 is correct: The list of Scheduled Tribes is State/UT specific and a community declared as a Scheduled Tribe in a State need not be so in another State. Hence, Option (b) is the correct answer.
- 65. (b)
  - Statement 1 is wrong: President not PM. as per Article 112.
  - Statement 2 is correct: Article 113(3): No demand for a grant shall be made except on the recommendation of the President. Hence, Option (b) is the correct answer.
- 66. (d) The India way and Why Bharat Matters are authored by 73. Subrahmanyam Jaishankar.
- 67. (b)
  - Statement 1 right. Argentina: Argentina has been facing a severe economic crisis, including high inflation, debt issues, and currency devaluation. This pair is correctly matched.
  - Statement 2 right Sudan: Sudan has been in the news due to a devastating conflict between the Sudanese Armed Forces (SAF) and the paramilitary Rapid Support Forces (RSF). This pair is correctly matched.
  - Statement 3 wrong. Turkey: Turkey has not rescinded its membership of NATO. This pair is wrongly matched.

#### Hence, Option (b) is the correct answer.

68. (a) **Statement I:** The Sumed pipeline is indeed a crucial alternative route for transporting oil from the Persian Gulf to Europe, bypassing the Suez Canal.

**Statement II:** The Sumed pipeline is located in Egypt and physically connects the Ain Sokhna terminal on the Red Sea to Sidi Kerir on the Mediterranean sea. so, yes, it provides a shorter and more efficient route for oil tankers, reducing transportation time and costs.

## Both Statement-I and Statement-II are correct and Statement-II explains Statement-I

- 69. (c)
  - Statement 1 is correct. The Red Sea receives very little precipitation in any form. The majority of the Red Sea coastline, both east and west, receives less than 250 mm of rainfall annually and is therefore classified as desert.
  - Statement 2 is correct. The Red Sea exchanges its water only with the Mediterranean Sea and the Indian Ocean. Unlike most seas, no rivers flow into it. Hence, Option (c) is the correct answer.

- 70. (d) Environmental Protection Agency (EPA)'s national ambient air quality standards for SO<sup>2</sup> are designed to protect against exposure to the entire group of sulfur oxides (SOx). The largest sources of SO<sup>2</sup> emissions are from fossil fuel combustion at power plants and other industrial facilities. Hence, Option (d) is the correct answer.
- (d) Dr Sachchidananda Sinha was the first president of the Constituent Assembly. On December 11, 1946, Rajendra Prasad was elected as permanent chairman. Hence, Option (d) is the correct answer.
- 72. (a)
  - Statement 1 is correct: Government of India Act, 1935 provided for the establishment of an All-India Federation based on the union of the British Indian Provinces and Princely States.
  - Statement 2 is wrong: In the Government of India Act, of 1935, defence and foreign affairs were among the "reserved subjects" that remained under the control of the British government or federal executive, not under the control of the federal legislature. Hence, Option (a) is the correct answer.
- 73. (c)
  - Option (c) is correct: Madhyama-vyayoga is a Sanskrit play attributed to Bhasa who was a famous Sanskrit poet. The play revolves around the characters from the Mahabharata, focusing on an episode involving Bhima and his son Ghatotkacha.
  - Option (a) is wrong: Kavyalankara by poet and literary theorist Bhamaha. It is a treatise on poetics and aesthetics, discussing various aspects of literary ornamentation and style.
  - Option (b) is wrong: Natyashastra by sage Bharata Muni.
  - Option (d) is wrong: Mahabhashya by grammarian Patanjali. Hence, Option (c) is the correct answer.
- 74. (c)
  - Option (c) is correct: Sanghabhuti, an Indian Buddhist monk who traveled to China at the end of the fourth century AD, was the author of a commentary on Sarvastivada Vinaya.
  - Option (a) is wrong: Prajnaparamita is a collection of ancient Mahayana Buddhist.
  - Option (b) is wrong: Visuddhimagga is a famous Theravada Buddhist commentary written by the Indian scholar Buddhaghosa.
  - Option (d) is wrong: Lalitavistara is a Mahayana Buddhist text that narrates the life of Gautama Buddha. It covers various events from his birth to his enlightenment and beyond.
- (b) Statement 1 is correct Shantiniketan was added to the World Heritage List released by UNESCO in the year 2023.

**Statement 2 is incorrect** – Rani-ki-Vav was added to the World Heritage List released by UNESCO in the year 2014.

**Statement 3 is correct** – Scared Ensembles of the Hoysalas was added to the World Heritage List released by UNESCO in the year 2023.

Statement 4 is incorrect – Mahabodhi Temple Complex at Bodhgaya was added to the World Heritage List released by UNESCO in the year 2002.

#### SOURCE

https://whc.unesco.org/en/statesparties/in

76. (d) As per Article 368 (1) under Part 20 of the Indian Constitution—"Notwithstanding anything in this Constitution, Parliament may in exercise of its constituent power amend by way of addition, variation or repeal any provision of this Constitution in accordance with the procedure laid down in this article." Hence, Option (d) is the correct answer.

#### 77. (a)

- As per newspapers Italy, S.Korea and Japan remain in negative news for low birth rate / declining population.
- Nigeria is not facing the low population problem. On the contrary, Nigeria's population is projected to grow from more than 186 million people in 2016 to 392 million in 2050, becoming the world's fourth most populous country.
- The population of South Africa will increase from 59 million in 2020 to 66 million in 2030 and 80 million in 2080. Hence, Option (a) is the correct answer.

78. (c)

- **Statement 1 is correct:** Article 109 of the Constitution outlines a specific procedure for Money Bills.
- Statement 2 is correct: Money Bills must be introduced exclusively in the Lok Sabha and cannot originate in the Rajya Sabha.
- Statement 3 is correct: The Rajya Sabha can suggest changes to a Money Bill, but it lacks the authority to amend or reject it outright.
- Statement 4 is wrong: The Lok Sabha has the discretion to accept or reject amendments proposed by the Rajya Sabha concerning a Money Bill. Hence, Option (c) is the correct answer.

79. (d)

- **Statement 1 wrong. correct is:** Brigadier-Commodore-Air Commodore
- Statement 2 wrong correct is: Major General- Rear Admiral -Air Vice Marshal
- st4 wrong, correct is: Lieutenant- Colonel Commander
   -Wing Commander

#### Hence, Option (d) is the correct answer.

80. (a) The North Eastern Council, which is chaired by the Hon'ble Home Minister, with the Hon'ble Minister of the Development of North Eastern Region (MDoNER) as its vice-chairman, comprises all eight North Eastern States' Governors and Chief Ministers and three Members nominated by the President of India (including Secretary, MDoNER, who is ex officio Member).

So, Home Minister is not the member but he is the chairman. so st 4 wrong. Thus, Statement4 is wrong and by elimination of options containing this statement, we arrive at the **correct answer (a).** 

#### 81. (a)

- Statement I is correct: The United States of America if defaults on its debt, the holders of its treasury bonds would not be able to claim and receive payments. As the US government issued bonds are not backed by any underlying asset, a default on the USA's government bond will trigger a default.
- Statement II is correct: These bonds are backed by the full faith and credit of the United States government and not backed by hard assets.

## So, Both Statement-I and Statement-II are correct and Statement-II explains Statement-I.

82. (c) **Statement 1 is correct:** Loan syndication occurs when a single borrower requires a large loan (\$1 million or more) that a single lender may be unable to provide, or when the loan is outside the scope of the lender's risk exposure. Lenders then form a syndicate that allows them to spread the risk and share in the financial opportunity.

**Statement 2 is wrong:** Lenders are referred to as a syndicate, which works together to provide funds for a single borrower. The borrower can be a corporation, a large project, or a sovereign government. The loan can involve a fixed amount of funds, a credit line, or a combination of the two. **Hence, Option (c) is the correct answer.** 

83. (d)

- Statement 1 is correct: Reserve Bank defines Central Bank Digital Currency (CBDC), e₹, (Digital Rupee) as the legal tender issued by a central bank in a digital form. CBDC is sovereign currency issued by Central Banks in alignment with their monetary policy.
- **Statement 2 is correct:** Digital Rupee appears as a liability on the central bank's balance sheet.
- Statement 3 is incorrect: Digital Rupee is considered a safe store of value but not insured against inflation. Like physical cash, the purchasing power of the digital rupee diminishes with rising inflation.
- Statement 4 is correct: Digital Rupee are freely convertible against commercial bank money and cash. Hence, Option (d) is the correct answer.
- 84. (b) **Option 1 is wrong**: The ancient texts describe Mahavira as Nayaputta. Statement 2 and 3 are correct.

85. (b)

- **Pair 1 wrong:** Chandraketugarh is situated in West Bengal. It is likely a prominent trading
- Pair 2 right: Inamgaon, located in the Pune district of Maharashtra, India, is a Chalcolithic (Copper Age) sit.
- Pair 3 right: Mangadu, aprehistoric site in Kerala for megalithic studies.
- **Pair 4 wrong:** Salihundam, situated in Andhra Pradesh, is not known for its rock-cut shrines.

Hence, Option (b) is the correct answer.

86. (a) **Option (a) is correct**: Emperor Krishnadevaraya permitted the Portuguese to construct a fort at Bhatkal in 1510 in Karnataka.

https://egyankosh.ac.in/bitstream/123456789/20190/1/Unit-27.pdf

87. (b)

- Statement 1 is wrong: Under the Ryotwari Settlement for revenue collection, peasants were obligated to pay revenue even in the event of poor harvests or natural disasters.
- Statement 2 is correct: 'sunset clause' introduced in 1794 stipulated that if the tax owed was not paid by a specific sunset deadline, the government would seize and auction off the zamindari, transferring its rights to the new owner. Hence, Option (b) is the correct answer.

88. (b)

- **Statement 1 is wrong:** The Parable of the Two Birds given in Upanishads.
- Statement 2 is correct: The first versions of the Puranas were likely composed between the 3rd and 10th centuries CE. Hence, Option (b) is the correct answer.

89. (a)

- Statement 1 is correct: India is indeed a member of the International Grains Council (IGC). The IGC is an intergovernmental organization that aims to further international cooperation in grains trade and to improve market transparency. India, being a significant player in the global grains market, is a member of this council.
- Statement 2 is wrong: It is not mandatory for a country to be a member of the International Grain Council (IGC) for exporting or importing rice and wheat. Hence, Option (a) is the correct answer.
- (c) Option (a) is incorrect: Chhau dance, a tradition from eastern India was inscribed under UNESCO's Representative List of the Intangible Cultural Heritage of Humanity in 2010.
  - Option (b) is incorrect: Durga Puja, the world's biggest public art festival, was inscribed in 2021 on the UNESCO Representative List of the Intangible Cultural Heritage of Humanity.
  - Option (c) is correct: UNESCO has inscribed the popular Gujarati folk dance Garba in UNESCO's Representative List of the Intangible Cultural Heritage of Humanity its 18th session, taking place in Kasane, Botswana from 5 to 9 December 2023. The inclusion of Garba now makes it India's 15th inscription on the List.
  - Option (d) is incorrect: Kumbh Mela is a festival held at Allahabad, Haridwar, Ujjain and Nasik every four years by rotation. It was inscribed UNESCO Representative List of the Intangible Cultural Heritage of Humanity in 2017.

- 91. (d) Delimitation means the process of fixing the number of seats and boundaries of territorial constituencies in each State for the Lok Sabha and Legislative assemblies. The Union government creates the Delimitation Commission once the Delimitation Act is in effect. Under the Delimitation Acts of 1952, 1962, 1972, and 2002, Delimitation Commissions were established four times- in 1952, 1963, 1973 and 2002. The commission was not created after the 1981 and 1991 Censuses. Hence, Option (d) is the correct answer.
- 92. (a) Maithili was not included in the 71st Amendment; it was added later by the 92nd Amendment in 2003. So st4 wrong and by elimination of options containing this statement, we arrive at the correct answer (a).

93. (b)

- Pair 1 is correct: Dr. Shyama Prasad Mukherjee founded the Bharatiya Jana Sangh in 1951.
- Pair 2 is wrong: C.Rajagopalachari was not associated with the Socialist Party. He founded Swatantra Party.
- Pair 3 is correct: Jagjivan Ram founded the Congress for Democracy in 1977 after splitting from the Indian National Congress.
- Pair 4 is wrong: Acharya Narendra Dev was a prominent leader in the Socialist Party, not the Swatantra Party. The Swatantra Party was led by C. Rajagopalachari and N.G. Ranga.

94. (d)

- Statement 1 is correct: Part IX A of the Constitution of India, which consists of Articles 243P to 243ZG, deals with the municipalities.
- Statement 2 is Correct: Part XVIII of the Constitution, which consists of Articles 352 to 360, deals with the emergency provisions.
- Statement 3 is correct: Article 368 in Part XX of the Constitution deals with the power of parliament to amend the Constitution and its procedures. Hence, Option (d) is the correct answer.

95. (c)

- Inter-State quarantine is a Union subject. That's why union home Ministry was issuing the directives during corona. Option (c) is right.
- Corporation tax is a union tax. So option (d) is wrong.
- Inter-State trade and commerce and migration also fall under Union so Option (a) and (b) are wrong.
- 96. (d) **Option (d) is correct:** Right to Privacy is placed under Article 21 of the Indian Constitution. The Supreme Court of India has held that the right to life includes the right to live with dignity, the right to livelihood, the right to a clean environment, the right to health, and the right to privacy.
- 97. (d) Some of the duties and functions of the Chief of Defence Staff (CDS) include the following:
  - To head the Department of Military Affairs in Ministry of Defence and function as its Secretary.
  - To act as the Principal Military Advisor to Hon'ble Raksha Mantri on all Tri-Service matters. Hence, Statement 3 is correct.

- To function as the Permanent Chairman of the Chiefs of Staff Committee. **Hence, Statement 1 is correct.**
- To administer the Tri-Service organizations/agencies/commands.
- To be a member of Defence Acquisition Council chaired by Hon'ble Raksha Mantri.

CDS will not exercise any military command, including over the three Service Chiefs, so as to be able to provide impartial advice to the political leadership. **Statement 2 is incorrect. Thus, Hence, Option (d) is the correct answer.** 

98. (c)

- Option (c) is correct: Operation Sadbhavana, the Indian Army is engaged in various welfare activities including the operation of Army Goodwill Schools, infrastructure development projects, and educational tours for children living in remote areas of the Union Territory (UT) of Ladakh.
- Option (a) is wrong: Operation Sankalp by Navy for security of Indian vessels in the Persian Gulf and the Gulf of Oman. (2019)
- Option (b) is wrong: Operation Maitri by the Indian Armed Forces in Nepal earthquake.
- Option (d) is wrong: Operation Madad by the Indian Navy for natural disasters within India. e.g. 2004 Indian Ocean tsunami and the 2018 Kerala floods.

99. (a)

- Option (a) is correct: Canada and the United States of America 8,891 kilometers
- Option (b) is wrong: The border between Chile and Argentina 5,308 kilometers
- Option (c) is wrong: The border between China and India is known as the Line of Actual Control (LAC). It stretches for 3,488 kilometers
- Option (d) is wrong: The border between Kazakhstan and Russia 7,644 kilometers
- 100. (c) St 2 is wrong: Any person can complain against a Member through another Lok Sabha MP, along with evidence of the alleged misconduct, and an affidavit stating that the complaint is not "false, frivolous, or vexatious". If the Member himself complains, the affidavit is not needed.

Thus, Statement 2 is wrong and by elimination of options containing this statement, we arrive at the correct answer (c).

The late Speaker, G M C Balayogi, constituted an ad hoc Ethics Committee in 2000, which became a permanent part of the House only in 2015. The Committee does not entertain complaints based only on media reports or on matters that are sub judice..

