

Q.1) Consider the following statements:

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

How many of the statements given above are correct?

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

Answer: B

Statement 1 and 3 are factually correct.

Statement 2 is wrong. Kolleru lake is directly fed by Budameru and Tammileru streams and thus not by Krishna River directly.

Hence only two statements are correct.

Q.2) Consider the following pairs: Port: Well known as

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

How many of the above pairs are correctly matched?

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

Answer: B

Only two pairs are are correct.

Pairs 1 and 2 are correct. Jawaharlal Nehru port is the

largest container port in India, not the Vishakapatnam Port. Hence option B.

Q.3) Consider the following trees:

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

How many of the above are deciduous trees?

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

Answer: B

Jackfruit tree is an evergreen tree i.e., they retain their leaves throughout the year. Mahua and Teak are both deciduous trees. Hence only two pairs are correct.

Q.4) Consider the following statements:

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

How many of the above statements are correct?

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

Answer: B

Statement 1 is correct. (India has the largest arable land in the world)

Statement 2 is correct. (India has more irrigated land than China.)

Statement 3 is incorrect. (China has higher average productivity.)

Source of data: World Development Indicators

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

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

Answer: D

The Rann of Kutch is a vast salt marshland located in the desert region of Gujarat which is known for its formation by repeated sea level fluctuations.

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

- a) Aluminum
- b) Copper
- c) Iron
- d) Titanium

Answer: D

Ilmenite and rutile are rich sources of titanium.

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

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

Answer: C

Democratic Republic of the Congo is the world's largest producer of Cobalt. (Approximately three-fourths of world's Cobalt)

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

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

Answer: A

Only Cameroon in the given options is part of the Congo Basin.

Q.9) Consider the following statements:

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

How many of the statements given above are correct?

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

Answer: D

Amarkantak is at the confluence of the Vindhya and Satpura mountain ranges. Hence, option 1 is not correct.

Seshachalam Hills are hilly ranges part of the Eastern Ghats in southern Andhra Pradesh state, in southeastern India.

The Biligirirangana Hills or Biligirirangan Hills (as referred to in biology and geology is a hill range

situated in south-western Karnataka, at its border with Tamil Nadu (Erode District).

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

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

How many of the above statements are correct?

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

Answer: D

None of the statements are correct. East-West Corridor under the Golden Quadrilateral Project connects Silchar in Assam to Porbandar in Gujarat.

Trilateral Highway connects Moreh in Manipur with Mae Sot in Thailand, passing through Myanmar.

The BCIM Economic Corridor connects Kunming in China to Kolkata in India.

Q.11) Consider the following statements: Statement-I: India, despite having uranium deposits, depends on coal for most of its electricity production. Statement-II:

Uranium, enriched to the extent of at least 60%, is required for the production of electricity. Which one of the following is correct in respect of the above statements?

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

Answer: C

Statement 1 is correct; Statement 2 is not correct.

Uranium has to be enriched to the extent of 3-5% only for electricity production.

Q.12) Consider the following statements:

Statement-I: Marsupials are not naturally found in India. Statement-II: Marsupials can thrive only in montane grasslands with no predators. Which one of the following is correct in respect of the above statements?

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

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

Answer: C

Statement 1 is correct; Statement 2 is not correct

Marsupials are not naturally found in India. Marsupials are not only found in the montane grasslands with no predators. They are mostly found in arid and semi-arid regions.

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

- a) The International Union for Conservation of Nature
- b) The United Nations Environment Programme
- c) The United Commission for Environment and Nations World Development
- d) The World Wide Fund for Nature

Answer: A

The Global Invasive Species Database was developed by Species Survival Commission of the IUCN.

Q.14) Consider the following fauna:

1. Lion-tailed Macaque
 2. Malabar Civet
 3. Sambar Deer
- How many of the above are generally nocturnal or most active after sunset?

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

Answer: B

Lion-tailed Macaque are diurnal species. Both Malabar Civet and Sambar Deer are nocturnal.

Q.15) Which of the following organisms perform a waggle dance for others of their kin to indicate the direction and the distance to a source of their food?

- a) Butterflies
- b) Dragonflies
- c) Honeybees
- d) Wasps

Answer: C

The 'waggle dance' is performed by Honey bees to communicate the direction, distance and quality of resource to its mates.

Q.16) Consider the following statements:

1. Some mushrooms have medicinal properties.
2. Some mushrooms have psycho- active properties.
3. Some mushrooms have insecticidal properties.
4. Some mushrooms have biolumi- nescent properties.

How many of the above statements are correct?

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

Answer: D

All statements given regarding 'some' mushrooms are correct.

Q.17) Consider the following statements regarding the Indian squirrels :

1. They build nests by making burrows in the ground.

2. They store their food materials like nuts and seeds in the ground.

3. They are omnivorous.

How many of the above statements are correct?

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

Answer: C

(This question is disputed. Both A or C can be the answers, but we are more inclined to the Option C.)

Indian Squirrels are omnivores. The other two statements are deemed to be correct but there is different opinion among the experts that they are wrong.

Q.18) Consider the following statements:

- 1. Some microorganisms can grow in environments with temperature above the boiling point of water.
- 2. Some microorganisms can grow in environments with temperature below the freezing point of water.
- 3. Some microorganisms can grow in a highly acidic environment with a pH below

How many of the above statements are correct?

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

Answer: C

All three statements are correct regarding 'some' organisms that is being asked.

Q.19) Which one of the following makes a tool with a stick to scrape insects from a hole in a tree or a log of wood?

- a) Fishing cat
- b) Orangutan
- c) Otter
- d) Sloth bear

Answer: B

Orangutans have been observed using sticks to scrape insects and bugs from the bark of the wood or holes in the log.

Q.20) Consider the following:

- 1. Aerosols
- 2. Foam agents
- 3. Fire retardants
- 4. Lubricants

In the making of how many of the above are hydrofluorocarbons used?

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

Answer: D

HFCs are a group of industrial chemicals primarily used for cooling and refrigeration. They are used in the making of all the four given options.

(Again, this is also a disputed question. Answer can be both C or D. Some experts are arguing that HFCs are not used for making lubricants.)

Q.21) Consider the following statements:

Statement-I: Interest income from the deposits (InvITs) distributed to their investors is in Infrastructure Investment Trusts exempted from

tax, but the dividend is taxable. Statement-II: InvITs are recognized as borrowers under the 'Securitization and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002'. Which one of the following is correct in respect of the above statements?

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

Answer: D

Infrastructure investment trusts (InvITs) are a type of investment vehicle that is similar to a mutual fund. The Securities and Exchange Board of India is in charge of this type of investment. The units of these trusts, which are also called "InvITs," are listed on different places to trade, such as stock exchanges. InvITs are a mix of equity instruments and debt instruments.

InvITs are set up to get investors to put their money into the infrastructure sector. These types of investments take money from several investors and put it into things that make money. The

cash flow is then given back to investors as dividend income. When compared to Real Estate Investment Trusts, or REITs, InvITs are similar in how they are set up and how they work.

InvITs have two types of returns for investors – Dividend Income and Capital Gains. Here is the tax treatment of each of these incomes:»Tax on Dividend and Interest Income: Any dividend or interest income from an InvIT investment is taxed at the individual Income Tax Slab rate. Every year, investors must report this income on their Income Tax Return.»Capital Gains Tax: An investor only has to pay capital gains tax if they sell their InvITs units. Short-Term Capital Gains (STCG) tax is 15% on income from the sale of InvITs units held for up to 3 years. Long-term capital gains (LTCG) tax of 10% is charged on the sale of InvITs units held for more than 3 years if the income is more than Rs. 1 lakh. So, statement 1 is not correct.

On February 11, 2021, the Finance Ministry said that the Government of India would be making changes to:»the Securities Contracts (Regulation) Act (SCRA) 1956;»the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest (SARFAESI) Act 2002; and»the Recovery of Debts Due to Banks and Financial Institutions Act ('Recovery of Debts Act') 1993.»The SARFAESI Act and the

Recovery of Debts Act have also been changed to give domestic lenders more ways to get their money back. With these changes, the definition of “borrower” in the acts is expanded to include a pooled investment vehicle. When combined with the definition of “secured creditor” in the SARFAESI Act, this means that a debenture trustee for listed secured debt securities issued by an InvIT or REIT will be able to use the protections and enforcement mechanisms in the acts. In the same way, eligible lenders can now take advantage of the Recovery of Debts Act when it comes to debt securities issued by an InvIT or REIT. So, statement 2 is correct

Q.22) Consider the following statements:

Statement-I: In the post-pandemic recent past many Central Banks worldwide had carried out interest rate hikes.

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

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

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

Statement-II is not the correct explanation for Statement-I

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

Answer: A

Many Central banks worldwide have carried out interest rate hikes in the post-pandemic recent past to try and tackle rising inflation. For example, the Reserve Bank of India raised the repo rate by 40 basis points to 4.4% in May 2022, the US Federal Reserve raised interest rates by 0.25 percentage points in February 2023, and the UK raised rates for the 10th month in a row in February 2023. So, statement 1 is correct

Central Banks assume that they have the ability to counteract the rising consumer prices via monetary policy means because they have the power to control the money supply in the economy through various tools. For example, they can adjust interest rates, which can influence borrowing and spending decisions by consumers and businesses and, by extension, affect the supply of money in circulation. When the Central Bank raises interest rates, it becomes more expensive for consumers and businesses to borrow money, which in turn reduces their spending and slows down the economy.

The monetary policy transmission mechanism can help reduce inflation. This can cause inflation

to decrease, as less money is chasing the same amount of goods and services. On the other hand, if the Central Bank lowers interest rates, it becomes cheaper for consumers and businesses to borrow money, which can stimulate spending and economic growth but may also lead to higher inflation if the supply of money increases faster than the supply of goods and services

Monetary policy measures are often used by Central Banks as a tool to maintain price stability and promote economic growth. This is known as inflation targeting by the Central Banks. This is because high and volatile inflation can adversely affect the economy by reducing the purchasing power of consumers and making it harder for businesses to plan and invest for the long term. By maintaining price stability, the Central Bank can create a conducive environment for businesses to thrive and support the overall health of the economy.

So, Central Banks assume that they have the ability to counteract the rising consumer prices via monetary policy means because they have the power to control the money supply and influence the borrowing and spending decisions of consumers and businesses. By using monetary policy tools such as interest rates, they can maintain price stability, promote economic growth, and support the overall health of the economy. So, statement II is correct and it

provides a reason for the interest rate hikes mentioned in Statement-I.

Q.23) Consider the following statements:
Statement-I: Carbon markets are likely to be one of the most widespread tools in the fight against climate change.
Statement-II: Carbon markets transfer resources from the private sector to the State.

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

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

Answer: B

Statement I suggest that carbon markets have the potential to become widely used tools in the effort to combat climate change. Carbon markets, also known as emissions trading systems or cap-and-trade programs, aim to reduce greenhouse gas emissions by creating a market for buying and selling carbon allowances or credits. By putting a price on carbon emissions, carbon markets provide economic incentives for industries to reduce their emissions and invest

in cleaner technologies. This statement is generally correct as carbon markets have gained prominence globally as a policy instrument for addressing climate change. So, statement 1 is correct.

Most of the voluntary carbon credits that are available now come from private companies that create carbon projects or from government programmes that are certified by carbon standards and reduce or remove emissions.» Demand comes from people who want to make up for their carbon footprints, companies with sustainability goals, and others who want to trade credits at a higher price to make money. So, statement 2 is correct

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

- Conducting 'Open Market Operations' of settlement
- Oversight payment systems
- Debt and cash management for the Central and State Governments
- Regulating the functions of Non-banking Financial Institutions

Answer: A

Sterilization is an action taken by the Central Bank to counterbalance the effects of foreign exchange interventions on domestic money supply and inflation. Open Market Operations are one Of the tools used by RBI for Sterilization.

Q.25) Consider the following markets

- Government Bond Market
- Call Money Market
- Treasury Bill Market
- Stock Market

How many of the above are included in capital markets?

- Only one
- Only two
- Only three
- All four

Answer: B

Money market is where short term debt and lending takes place, usually for one year or less. The Capital market is for long term assets. By the definition, only Govt. Bond Market and Stock market in the given options are included in the Capital Market. Call Money Market and T-Bill Markets are part of the money market, as they deal with short-term instruments.

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

- Resettlement of a large number of people, uprooted from their countries due to war, by giving them a large cultivable land which they cultivate collectively and share the produce
- Many marginal farmers in an area organize themselves into groups and synchronize and harmonize selected agricultural operations
- Many marginal farmers in an area together make a contract with a corporate body and surrender. their land to the corporate body for a fixed term

for which the corporate body makes a payment of agreed amount to the farmers

- d) A company extends loans, technical knowledge and material inputs to a number of small farmers in an area so that they produce the agricultural commodity required by the company for its manufacturing process and commercial production

Answer: B

The SFLF concept was adapted from the Large Field Model (LFM) of Vietnam. The basics of the model are that smallholders join and decide to grow a crop of one or two varieties, synchronize all the agricultural operations (seed to seed) as a group/ community and gain higher bargaining power while dealing with service providers, dealers, and paddy traders/millers.

Q.27) Consider the following statements:

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

How many of the above statements are correct?

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

Answer: C

Niger is a minor oilseed crop that is grown in India also known as ramtil or karala. Govt. provides MSP for Niger. It is a Kharif crop and niger seed oil is used by certain tribal groups for cooking.

Q.28) Consider the investments in the following assets:

1. Brand recognition
2. Inventory
3. Intellectual property
4. Mailing list of clients

How many of the above are considered intangible investments?

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

Answer: C

Intangible investments are non physical neither tangible in nature. Brand recognition, Intellectual Property, and Mailing list of clients are considered as intangible investments. Inventory is a tangible asset.

Q.29) Consider the following:

1. Demographic performance
2. Forest and ecology
3. Governance reforms
4. Stable government
5. Tax and fiscal efforts

For the horizontal tax devolution, the Fifteenth Finance Commission used how many of the above as criteria other than population area and income distance?

- a) Only two
- b) Only three
- c) Only four

d) All five

Answer: B

The horizontal devolution formula of 15FC has given 15% weightage to population and 12.5% to demographic performance. Area and forest cover got 15% and 10% weightage respectively. Income distance and tax effort got 45% and 2.5% of weightage respectively. Thus, 15th FC has changed the devolution formula by giving area and forest cover total 25% weightage which is for the first time in India's fiscal devolution history.

Q.30) Consider the following infrastructure sectors:

1. Affordable housing
2. Mass rapid transport
3. Health care
4. Renewable energy

How many of the above does UNOPS Sustainable Investments in Infrastructure and Innovation (S3i) initiative focus for its investments?

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

Answer: C

The UNOPS S3i focuses on affordable housing, renewable energy, and health care projects. Mass rapid transportation is the odd one in the list.

Q.31) In essence, what does 'Due Process of Law' mean?

- a) The principle of natural justice
- b) The procedure established by law

c) Fair application of law

d) Equality before law

Answer: C

(Answers can be both A or C. But we are more inclined to the option C.)

The legal necessity that the state respects all legal rights owing to a person is known as due process. Due process balances the force of the law of the land while also protecting the individual. A due process violation occurs when the government harms a person without obeying the letter of the law. This is a violation of the rule of law. The due process of law doctrine examines not only whether a law exists to deprive a person of his or her life and personal liberty, but also whether the legislation is fair, just, and not arbitrary.

Q.32) Consider the following statements

Statement-I : In India, prisons are managed by State Governments with their own rules and regulations for the day-to-day administration of prisons.
Statement-II : In India, prisons are governed by the Prisons Act, 1894 which expressly kept the subject of prisons in the control of Provincial Governments. Which one of the following is correct in respect of the above statements?

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

Statement-II is not the correct explanation for Statement-I

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

ANSWER: A

Prison is a state subject under list-2 of the Seventh Schedule. So, statement 1 is correct,

In India prisons are managed and governed by the Prisons Act of 1984. As per the section 59 of the act, state governments are empowered to control the subject of prisons in their respective states. Hence, statement 2 is correct and it provides the correct explanation for statement 1.

Q.33) Which one of the following statements best reflects the Chief purpose of the 'Constitution' of a country?

- a) It determines the objective for the making of necessary laws.
- b) It enables the creation of political offices and a government.
- c) It defines and limits the powers of government.
- d) It secures social justice, social equality and social security.

Answer: C

A constitution is always associated with the idea of limiting the powers of a government. A constitution is essentially the aggregate of the basic principles and laws of a political community, which is either a nation or a state that determines the powers and duties of its government and the rights

guaranteed to its citizens. It determines the structure and operation of government bodies and the political principles of the system.

(Again, experts are divided among answer B and C.)

Q.34) In India, which one of the following Constitutional Amendments was widely believed to be enacted to overcome the judicial interpretations of Fundamental Rights?

- a) 1st Amendment
- b) 42nd Amendment
- c) 44th Amendment
- d) 86th Amendment

ANSWER: A

(This is also a disputed question. Answers can be both A or B.)

The 1st amendment is famed for its enactment to overcome the judicial interpretations of the Fundamental Rights.

Q.35) Consider the following organizations/ bodies in India :

1. The National Commission for Backward Classes
2. The National Human Rights Commission
3. The National Law Commission
4. The National Consumer Disputes Redressal Commission

How many of the above are constitutional bodies?

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

Answer: A

Among the list only NCBC is a constitutional body. NHRC is a statutory body, NLC is an executive body and NCDRC is a statutory quasi-judicial commission.

Q.36) Consider the following statements:

1. If the election of the President of India is declared void by the Supreme Court of India, all acts done by him/her in the performance of duties of his/her office of President before the date of decision become invalid.
2. Elections for the post of the President of India can be postponed on the ground that some Legislative Assemblies have been dissolved and elections are yet to take place.
3. When a Bill is presented to the President of India, the Constitution prescribes time limits within which he/she has to declare his/her assent.

How many of the above statements are correct?

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

Answer: D

All the three statements are incorrect regarding the President of India.

Source: Indian Polity by M. Lakshmikanth

Q.37) With reference to Finance Bill and Money Bill in the Indian Parliament the following statements :

1. When the Lok Sabha transmits the Finance Bill to the Rajya Sabha, it can amend or reject the Bill.
2. When the Lok Sabha transmits Money Bill to the Rajya Sabha, it cannot amend or reject the Bill, it can only make recommendations.
3. In the case of disagreement between the Lok Sabha and the Rajya Sabha, there is no joint sitting for Money Bill, but a joint sitting becomes necessary for the Finance Bill.

How many of the above statements are correct?

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

Answer: B

(Answers can be either A or B. Statement 1 and 3 can be interpreted in multiple ways.)

Statement 2 is correct. Rajya Sabha has no equal powers with respect to the Lok Sabha in the matters of a Money Bill.

Statement 3 is wrong. A joint sitting is not necessary.

Statement 1 is deemed to be correct for the purpose of this answer key. Again, there is a scope for multiple interpretations.

Q.38) Consider the following statements: Once the Central Government notifies an area as a 'Community Reserve'

1. the Chief Wildlife Warden of the State becomes the

governing authority of such forest

2. hunting is not allowed in such area
 3. people of such area are allowed to collect non-timber forest produce
 4. People of such area are allowed traditional agricultural practices
- How many of the above statements are correct?
- a) Only one
 - b) Only two
 - c) Only three
 - d) All four

Answer: C

(Answer can be both C or B)

Community Reserves were introduced by the Wildlife Protection Act of 2002.

Section 33 of the act authorizes the Chief Wildlife Warden, hence statement 1 is correct.

People cannot hunt there, so statement 2 is correct.

Once made a Community Reserve, no land use change is permitted so as for traditional agricultural practices. Hence, statement 4 is incorrect.

Statement 3 is correct. This statement is disputed, yet as per various provisions of other environmental laws as well, it can be considered as a correct statement.

Q.39) With reference to 'Scheduled Areas' in India, consider the following statements:

1. Within a State, the notification of an area as Scheduled Area

takes place through an Order of the President.

2. The largest administrative unit forming the Scheduled Area is the District and the lowest is the cluster of villages in the Block.
3. The Chief Ministers of concerned States are required to submit annual reports to the Union Home Ministry on the administration of Scheduled Areas in the States.

How many of the above statements are correct?

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

Answer: B

Statement 1 is correct. Article 244(1) of the Constitution expressly states so.

Statement 2 is correct. A viable administrative entity is a criterion for declaring any areas as Fifth Schedule areas.

Statement 3 is incorrect. The Governor is required to submit a report annually to the President, not the Chief Minister to the Union Home Ministry.

Q.40) Consider the following statements : Statement-I : The Supreme Court of India has held in some judgments that the reservation policies made under Article 16(4) of the Constitution of India would be limited by Article 335 for maintenance of efficiency of administration.

Statement-II : Article 335 of the Constitution of India defines the term 'efficiency of administration'. Which one of the following is correct in respect of the above statements?

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

Answer: C

Statement 1 is correct. The Supreme Court has held in some judgements that the reservation policies made under article 16(4) would be limited by Article 335 (Maintenance of efficiency in administration).

Statement 2 is incorrect. The Constitution does not define the term 'efficiency of administration' in Article 335.

Q.41) In which one of the following regions was Dhanyakataka, which flourished a prominent Buddhist center under the Mahasanghika, located?

- Andhra
- Gandhara
- Kalinga
- Magadha

Answer :A

Dharanikota is a town near Amaravati in the Guntur district of Andhra Pradesh in India, It is the site of the ancient Dhanyakataka which was the capital of the Satavahana kingdom which ruled in the Deccan around the 1st to 3rd centuries A.D. It is famous for amaravati Buddhist architecture.

Q.42) With reference to ancient India, consider the following statements

- The concept of Stupa is Buddhist in origin.
- Stupa was generally a repository of relics.
- Stupa was a votive and commemorative structure in Buddhist tradition.

How many of the statements given above are correct?

- Only one
- Only two
- All three
- None

Answer :B

The word 'Stupa' is said to have been derived from the Sanskrit root 'Stu' meaning 'to worship' or 'to praise'. The Stupa developed as the nucleus of Buddhist faith and worship, but its origin cannot be regarded as Buddhist for evidence of its roots date back to c. 2000 B.C. Burial mounds containing relics were raised from earth and rock according to an age old custom that had survived from as early as Neolithic times. Buddhist commemorative monument usually housing sacred relics associated with the buddha or other saintly persons. Commemorative and

Votive stupa are built to commemorate events in the lives of Buddha or his disciples.

- Q.43)** With reference to ancient South India, Korkai, Poompuhar and Muchiri were well-known as-
- Capital cities
 - Ports
 - Centres of iron-and-steel making
 - Shrines of Jain Tirthankaras

Answer :B

Poompuhar was once a flourishing ancient port city known as kaveri poompattinam, which is described in sangam literature. Korkai was the capital, principal center of trade and important port of the early pandyan kingdom. Muziris was an ancient harbour and an urban centre on the malabar coast. muziris found mention in the periplus of the erythraean sea, the bardic tamil poems and a number of classical sources. It was the major ancient port city of cheras.

- Q.44)** Which one of the following explains the practice of "Vattakirutal" as mentioned in Sangam poems?
- Kings employing women bodyguards.
 - Learned persona assembling in royal courts to discuss religious and philosophical matters
 - Young girls keeping watch over agricultural fields and driving away birds and animals
 - A king defeated in a battle committing ritual suicide by starving himself to death

Answer :D

Vadakiruthal and vadakiruttal, was a tamil ritual of fasting till death. It was especially widespread during the sangam age. The tamil kings, in order to save their honour, and prestige, were prepared to meet their death facing north ('vatakkiruttal') and never would they turn their back in battle.

- Q.45)** Consider the following dynasties:

- Hoysala
 - Gahadavala
 - Kakatiya
 - Yadava
- How many of the above dynasties established their kingdoms in the early eighth century AD?

- Only one
- Only two
- Only three
- None

Answer: D

All the four dynasties were established by 10th and 11th century.

- Q.46)** With reference to ancient Indian History, consider the following pairs

Literary work : Author

- Devi Chandragupta : Bilhana
- Hammira-Mahakavya: Nayachandra Suri
- Melinda panha : Nagarjuna
- Nitivakyamrita : Somadeva Suri

How many of the above pairs are correctly matched?

- Only one
- Only two
- Only three
- All four

Answer: B

Devichandraguptam was written by Vishakadeva. Milinda Panho was written by Nagasena.

Q.47) 'Souls are not only the property of animal and plant life, but also of rocks, running water and many other natural objects not looked on as living by other religious sects'. The above statement reflects one of the core beliefs of which one of the following religious sects of ancient India?

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

Answer :B

Buddhism denies there is any such soul or self in a living being. Jains believe that there are an infinite number of souls in the universe - every living thing, no matter how primitive, is a jiva.

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

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

Answer: A

Devaraya I built a network of canals for irrigation, some of which carried water right into Hampi.

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

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

Answer :C

Bahadur khan was a sultan of the Muzaffarid dynasty who reigned over the Gujarat sultanate, a late medieval kingdom in India from 1526 to 1535 and again from 1536 to 1537. He was attacked and killed by the Portuguese; his body was dumped into the Arabian Sea. These events were followed by the 1538 siege of diu which resulted in the permanent occupation of Diu by Portuguese which lasted till 1961.

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

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

Answer: D

By **Charter Act of 1833**, the post name of Governor-General of Bengal again converted into "**Governor-General of India**".
By Charter Act of 1833, the post name of Governor-General of Bengal again converted into "Governor-General of India".

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

1. It is a safe motherhood intervention of the State Health Departments.
2. Its objective is to reduce maternal and neonatal

mortality among poor pregnant women.

3. It aims to promote institutional delivery among poor pregnant women.
4. Its objective includes providing public health facilities to sick infants up to one year of age.

How many of the statements given above are correct?

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

Answer: B

Janani Suraksha Yojana is a 100 % centrally sponsored scheme and it integrates cash assistance with delivery and post-delivery care.

objectives: it was launched for reducing maternal and neonatal mortality, to promote institutional delivery among pregnant women especially with weak socio-economic status i.e. women from scheduled castes, scheduled tribes and bpl households.

In Janani Sisu Suraksha Karyakram entitlements have been put in place for all sick newborns and infants (up to one year of age) accessing public health institutions for treatment

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

1. It provides prophylactic calcium supplementation for pre-school children, adolescents and pregnant Women.

2. It runs a campaign for delayed Cord clamping at the time of child birth.

3. It provides for periodic deworming to children and adolescents
4. It addresses non-nutritional causes of anaemia in endemic pockets with special focus on malaria, hemoglobinopathies and fluorosis.

How many of the statements given above are correct?

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

Answer: C

In 2018, the Government of India launched the Anaemia Mukht Bharat (AMB) strategy with the target to reduce anaemia in the vulnerable age groups such as women, children and adolescents in life cycle approach providing preventive and curative mechanisms through a 6X6X6 strategy including six target beneficiaries, six interventions and six institutional mechanisms for all stakeholders to implement the strategy. Under AMB strategy, the interventions for tackling the problem of anaemia in all the States and UTs include Prophylactic **iron** and Folic Acid Supplementation
Refer:

<https://pib.gov.in/PressReleasePage.aspx?PRID=1795421>

Q.53) Consider the following statements:

1. Carbon fibers are used in the Manufacture of components

used in automobiles and aircrafts.

2. Carbon fibers once used cannot be recycled.

Which of the statements given above is/are correct?

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

Answer: A

Carbon fibers can be defined as fibers with a carbon content of 90% or above. They are produced by thermal conversion of organic fibers with a lower carbon content such as polyacrylonitrile (PAN) containing several thousand filaments with diameter between 5 and 10 μm . Carbon fiber-reinforced composite materials are used to make aircraft and spacecraft parts, racing car bodies, golf club shafts, bicycle frames, fishing rods, automobile springs, sailboat masts, and many other components where light weight and high strength are needed. Recently new technologies are developed where carbon fibers can be recycled.

Q.54) Consider the following actions:

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

rotation of display between portrait and landscape mode. In how many of the above actions is the function of accelerometer required?

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

Answer: C

The accelerometer is an electromechanical device that measures the force of acceleration caused by movement or by gravity or by vibration. These forces can be static like gravity force, dynamic senses movement, or vibrations. Most of the smartphones use accelerometer these days to align the screen orientation depending on the direction of the device is held. If your laptop drops suddenly while you are using it, an accelerometer can identify causes of the sudden free fall and turn off the hard drive right away to avoid any data damage. It is also used in cars to detect a crash to release safety bags.

Q.55) With reference to the role of bio filters in Recirculating Aquaculture System, consider the following statements:

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

How many of the statements given above are correct?

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

Answer :B

A biological filter is a vital part of aquaculture filtration to convert the produced ammonia into usable nitrogen forms so that ammonia does not rise to toxic levels and cause harm to the organisms. They provide waste treatment by removing uneaten feeds. It will not increase the amount of phosphorous in water which is harmful to the aquatic population.

Q.56) Consider the following pairs:

Objects in space: Description

1. Cepheids : Giant clouds of dust and gas in space
2. Nebulae : Stars which brighten and dim periodically
3. Pulsars: Neutron stars that are formed when massive stars run out of fuel and collapse

How many of the above pairs are correctly matched?

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

Answer: A

A Cepheid variable is a type of variable star that pulsates radially, varying in both diameter and temperature. It changes in brightness, with a well-defined stable period and amplitude.

A nebula is a giant cloud of dust and gas in space.

A pulsar (from pulsating radio source) is a highly magnetized rotating **neutron star** that emits beams of electromagnetic radiation out of its magnetic poles. A **neutron star is the collapsed core** of a massive supergiant star, which had a total mass of between 10 and 25 solar masses, possibly more if the star was especially metal-rich

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

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

Answer: D

The Quasi-Zenith Satellite System (QZSS), also known as Michibiki (みちびき), is a four-satellite regional time transfer system and a satellite-based augmentation system developed by the **Japanese government** to enhance the United States-operated Global Positioning System (GPS) in the Asia-Oceania regions, with a focus on Japan.

Q.58) Consider the following statements:

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

intercontinental ballistic missile.

Which of the statements given above is/are correct?

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

Answer: D

A **ballistic trajectory** is the path of an object that is launched but **has no active propulsion** during its actual flight (these weapons are guided only during relatively brief periods of flight). **Agni-V** is a land based nuclear capable **intercontinental ballistic missile ICBM** developed by the Defence Research and Development Organisation (DRDO) of India. The missile has a range of more than 7,000 kilometers

Q.59) Consider the following statements regarding mercury pollution 1. Gold mining activity is a source of mercury pollution in the world. 2. Coal-based thermal power plants cause mercury pollution. 3. There is no known safe level of exposure to mercury.

How many of the above statements are correct?

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

Answer: C

Mercury contamination is global and affects many waters that have no obvious mercury source. This is because mercury emissions

generally disperse widely in the atmosphere before being deposited to the earth's surface. Mercury is emitted by natural sources, such as volcanoes, geothermal springs, geologic deposits, and the ocean. Human-related sources primarily include **coal combustion**, waste incineration, industrial uses, and mining. In many countries, elemental mercury is used in artisanal and small-scale gold mining. **Mercury is mixed with gold-containing materials**, forming a mercury-gold amalgam which is then heated, vaporizing the mercury to obtain the gold. Mercury is a highly toxic element; there is no known safe level of exposure.

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

1. It can be used directly as a fuel for internal combustion.
2. It can be blended with natural gas and used as fuel for heat or power generation.
3. It can be used in the hydrogen fuel cell to run vehicles.

How many of the above statements are correct?

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

Answer: C

1. Green hydrogen can be used directly as a fuel for internal combustion: This statement is correct.

Green hydrogen, which is produced using renewable energy sources, can be utilized as a fuel for internal

combustion engines. It can be used as a direct replacement for fossil fuels in vehicles and other applications.

2. Green hydrogen can be blended with natural gas and used as fuel for heat or power generation:

This statement is correct. Green hydrogen can be blended with natural gas in certain proportions and used as a fuel for heat or power generation. This blend, often referred to as "Hydrogen-enriched natural gas," can help reduce the carbon emissions associated with natural gas combustion.

3. Green hydrogen can be used in the hydrogen fuel cell to run vehicles: This statement is correct.

Green hydrogen can be utilized in fuel cells to produce electricity. Hydrogen fuel cells can power vehicles, providing an alternative to conventional internal combustion engines and reducing greenhouse gas emissions

Q.61) Consider the following countries:

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

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

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

Answer: A

Ukraine borders with seven countries: Poland, Slovakia, Hungary, Romania, Moldova, Russia, and Belarus.

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

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

Answer: C

Infrared waves, or infrared light, are part of the electromagnetic spectrum. People encounter Infrared waves every day; the human eye **cannot see** them, but humans can detect them as heat.

Hence option d is not correct.

When solar radiation passes through the atmosphere, water vapor, ozone, and other gases absorb much of the near-infrared radiation.

Infrared makes up 49.4%, visible 42.3%, and ultraviolet 8% of the total solar radiation. **Hence option B is incorrect.**

The atmosphere is largely transparent to short-wave solar radiation. The incoming solar radiation passes through the atmosphere before striking the

earth's surface. Within the troposphere water vapor, ozone, and other gases absorb much of the near-infrared radiation.

Therefore, option (c) is the correct answer.

Q.63) Consider the following statements:

Statement-I: The soil in tropical rain forests is rich in nutrients.

Statement-II: The high temperature and moisture of rain forests cause tropical dead organic matter in the soil to decompose quickly. Which one of the following is correct in respect of the above statements?

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

Answer: D

Explanation:

Statement-I: Contrary to what many might expect, the soil in tropical rainforests is generally not rich in nutrients. This is because while these forests are lush and support a great diversity of plant life, the high rainfall typical of these ecosystems can leach nutrients from the soil, making it relatively poor in nutrients.

Statement II: **This statement is correct.** The high temperature and moisture of tropical rainforests do indeed, promote the rapid decomposition of dead organic matter. This process returns nutrients quickly to the ecosystem, where they are rapidly taken up by plants and other organisms, contributing to the richness and diversity of life in these forests.

Therefore, the answer is (d) Statement-I is incorrect but Statement-II is correct.

Q.64) Consider the following statements:

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

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

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

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

Answer: A

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

Statement-I: The temperature contrast between continents and oceans is greater during summer than in winter: This statement is correct. During summer, land surfaces heat up more quickly than oceans due to differences in their heat capacities. This leads to warmer temperatures over land, creating a greater

The temperature contrast between continents and oceans.

Statement II: The specific heat of water is more than that of the land surface: This statement is correct. Water has a higher specific heat capacity compared to land. Specific heat is the amount of heat required to raise the temperature of a substance by a certain amount. Due to water's higher specific heat capacity, it can absorb and store more heat energy compared to land. As a result, water takes longer to heat up and cool down compared to land, contributing to the temperature contrast between continents and oceans.

Statement II provides the correct explanation for Statement-I. The higher specific heat capacity of water is the reason why land surfaces heat up more quickly in summer, leading to a greater temperature contrast between continents and oceans.

Q.65) Consider the following statements:

1. In a seismograph, P waves are recorded earlier than S waves.
2. In P waves, the individual particles vibrate to and fro in the direction of wave

propagation whereas in S waves, the particles vibrate up and down at right angles to the direction of wave propagation.

Which of the statements given above is/are correct?

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

Answer: C

Explanation:

Earthquake waves are basically of two types — body waves and surface waves. Body waves are generated due to the release of energy at the focus and move in all directions travelling through the body of the earth. Hence, the name body waves. The body waves interact with the surface rocks and generate new set of waves called surface waves. These waves move along the surface. The velocity of waves changes as they travel through materials with different densities. The denser the material, the higher is the velocity. Their direction also changes as they reflect or refract when coming across materials with different densities.

P-waves move faster and are the first to arrive at the surface. These are also called 'primary waves. The P-waves are similar to sound waves. They travel through gaseous, liquid and solid materials. S-waves arrive at the surface with some time lag. These are called secondary waves.

So, statement 1 is correct.

P-waves vibrate parallel to the direction of the wave. This exerts pressure on the material in the direction of the propagation. As a result, it creates density differences in the material leading to stretching and squeezing of the material. The direction of vibrations of S-waves is perpendicular to the wave direction in the vertical plane. Hence, they create troughs and crests in the material through which they pass. Surface waves are considered to be the most damaging waves. **So, statement 2 is correct.**

Therefore, option (c) is the correct answer

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

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

How many of the above statements are correct?

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

Answer: D

Explanation:

• In India, several coal-fired thermal power plants employ seawater for a variety of functions, including cooling the condenser system. Seawater is a frequent supply of cooling water for power plants near the coast. It should be noted, however, that not all power

plants use seawater; others may rely on freshwater sources. **So, statement 1 is not correct.**

• According to a report, 40 percent of the country's thermal power plants are located in areas facing high water stress, a problem since these plants use water for cooling. Scarce water is already hampering electricity generation in this region.

So, statement 2 is not correct.

• There are both privately and publicly owned coal-fired thermal power stations in India. The country's power generation is a collaboration of corporate and public companies. Many private corporations have invested in the power industry and run coal-fired thermal power facilities. **So, statement 3 is not correct.**

Therefore, option (d) is the correct answer.

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

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

Answer: A

Controlling the viral diseases spread by mosquitoes

The "Wolbachia method" is a biological control method used to control the spread of viral diseases, such as dengue, Zika, and chikungunya, which are transmitted

by mosquitoes. Wolbachia is a naturally occurring bacterium found in many insects, including mosquitoes. When male mosquitoes carrying Wolbachia are released and mate with wild female mosquitoes, the resulting eggs do not hatch or develop properly, reducing the mosquito population over time. This method has shown promising results in reducing the transmission of viral diseases by mosquitoes and has been implemented in various regions as a strategy for mosquito-borne disease control.

Q.68) Consider the following activities:

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

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

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

Answer: C

Explanation: Carbon sequestration is described as the technologies designed to tackle global warming by capturing CO₂ at power stations, industrial sites, or even directly from the air and permanently storing it underground. It describes the long-term storage of carbon dioxide or

other forms of carbon to either mitigate or defer global warming.

- Spreading finely ground basalt rock on farmlands extensively: This method aims to enhance the natural weathering of minerals that can react with CO₂ and form stable carbonates. This can increase the carbon storage capacity of soils and also improve soil fertility and crop yields. **So, point 1 is correct.**

- Increasing the alkalinity of oceans by adding lime: This method involves dissolving limestone or other alkaline minerals in seawater, which can increase the ocean's capacity to absorb CO₂ from the atmosphere and reduce ocean acidification. **So, point 2 is correct.**

- Capturing carbon dioxide involves capturing carbon dioxide (CO₂) at emission sources, transporting and then storing or burying it in a suitable deep, underground location. CCS can also mean the removal of CO₂ directly or indirectly from the atmosphere. **So, point 3 is correct. Therefore, option (c) is the correct answer.**

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

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

animal samples from land surfaces and water bodies

Answer: A

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

Ecologists have thought of this, and it certainly works for things like animal droppings. But these, too, must first be detected and collected—and they will identify only the animal that dropped them. Therefore, option (a) is the correct answer.

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

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

Answer: A

Explanation:

- Microsatellite DNA is utilised in genetic analysis, more specifically in molecular genetics and genomics. Microsatellites are small DNA sequences made up of repeating units. They are also known as short tandem repeats

(STRs) or simple sequence repeats (SSRs). These repeating units, which are typically 1-6 base pairs in length, are repeated in tandem, and the amount of repetitions varies between individuals. The number of repeats at a certain microsatellite locus might vary greatly between people in a population because microsatellite DNA is highly variable.

- Researchers can analyse the genetic structure, population dynamics, and evolutionary relationships among various species of animals by analysing microsatellite DNA. Microsatellite markers are very valuable in population genetics, conservation genetics, and phylogenetic research. Therefore, option (a) is the correct answer.

Q.71) Consider the following statements with reference to India:

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

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Answer :D

What is medium enterprises as per MSMED Act?

Investment in Plant and Machinery or Equipment: **Not more than Rs.1 crore and Annual Turnover ; not more than Rs. 5 crore.**

MSMEs should be engaged in the manufacture or production of goods, in any manner, pertaining to any industry specified in the First Schedule to the Industries (Development and Regulation) Act, 1951 or engaged in providing or rendering of any service or services. All bank loans to MSMEs conforming to the above guidelines qualify for classification under priority sector lending.

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

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

Which of the statements given above is/are correct?

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

Answer: C

Central bank digital currencies (CBDCs) are a form of digital currency issued by a country's central bank. They are similar to cryptocurrencies, except that their

value is fixed by the central bank and equivalent to the country's fiat currency. It is possible to make payments without dollar or SWIFT using digital currency. Conditions can be programmed into digital currency by the central government.

Q.73) In the context of finance, the term "beta" refers to

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

Answer: D

Beta (β) is a measure of the volatility—or systematic risk—of a security or portfolio compared to the market as a whole (usually the S&P 500). Stocks with betas higher than 1.0 can be interpreted as more volatile than the S&P 500.

Q.74) Consider the following statements:

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

3. The Regional Rural Banks and Scheduled Commercial Banks support SHGs.

How many of the above statements are correct?

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

Answer B

- The Genesis of SHG in India can be traced to formation of Self-Employed Women's Association (SEWA) in 1970. The SHG Bank Linkage Project launched by NABARD in 1992 has blossomed into the world's largest microfinance project.
- In an SHG, all members are jointly responsible for the loans taken by individual members.
- Both the Regional Rural Banks and Scheduled Commercial Banks support SHGs. So, statement 3 is correct.

Q.75) Consider the following statements:

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

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

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

- a) Both Statement-I and Statement-II are correct and

Statement-II is the correct explanation for Statement-I

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

Answer: B

As opposed to preventive care, India has traditionally focused on curative care. There is a change in focus for preventive care but still curative care dominates Indian public health system. Articles published in March 2023 in leading newspapers are given below which shows that India's public health system is focused on curative than preventive approach. The states are primarily responsible for organizing health services. But it is not the reason for dominance of curative approach in public health system.

Sources

<https://economictimes.indiatimes.com/opinion/et-commentary/world-health-day-why-preventive-is-the-new-curative/articleshow/99276686.cms>

<https://timesofindia.indiatimes.com/blogs/voices/growing-trends-in-preventive-healthcare-how-they-are-helping-saving-lives/>

Q.76) Consider the following statements:

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

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

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

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

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

Answer: C

India accounts for nearly 26% of groundwater abstracted globally (Margat and Van der Gun, 2013). Page no. 101 - The United Nations World Water Development Report 2022: groundwater: making the invisible visible.

India is the world's largest user of groundwater. It has an annual draft of around 251 km³, 89% of which is used for irrigation. (Page 75 - The United Nations World Water Development Report 2022: groundwater: making the invisible visible.)

Therefore statement 2 is incorrect

<https://unesdoc.unesco.org/ark:/48223/pf0000380721>

Q.77) Consider the following statements:

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

How many of the above statements are correct?

- Only one
- Only two
- All three
- None

Answer: A

Article 355 states, «It shall be the duty of the Union to protect every State against external aggression and **internal disturbance** and to ensure that the Government of every State is carried on in accordance with the provisions of this Constitution.» So statement 1 is correct.

Article 22(1) states that «No person who is arrested shall be detained in custody without being informed, as soon as may be, of the grounds for such arrest nor shall he be denied the right to consult, and to be defended by, a legal practitioner of his choice.» So statement 2 is not correct.

- According to the Prevention of Terrorism Act , 2002, confession of the accused before the police can be used as evidence. So statement 3 is not correct.

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

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

Answer: D

Somalia's ongoing record drought may have killed as many as 43,000 people last year, and half of them were children under the age of five, according to a report released by the government and United Nations agencies. The research released on December 2022 marked the first attempt to estimate countrywide deaths in a crisis that experts warn is more severe than the country's last major drought in 2017 and 2018.

Q.79) Consider the following statements:

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

biological resources within its jurisdiction.

Which of the statements given above is/are correct?

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

Answer: C

Biodiversity Management Committees (BMC) are created as per the Biological Diversity Act 2002 for promoting conservation, sustainable use, and documentation of biological diversity. e BMCs also have important functions in determining access and benefit-sharing (ABS), including the power to levy collection fees on the access of biological resources within its jurisdiction. BMCs are, thus, key to the realisation of the objectives of the Nagoya Protocol (2010), negotiated within the CBD, enjoining parties to take measures to ensure that benefits from the utilisation of genetic resources and associated traditional knowledge accrue to indigenous and local communities on mutually agreed terms.

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

1. The members nominated to either House of the Parliament or the Legislative Assemblies of States are also eligible to be included in the Electoral College.

2. Higher the number of elective Assembly seats, higher is the value of vote of each MLA of that State. 3. The value of vote of each MLA of Madhya Pradesh is greater than that of Kerala.
3. The value of vote of each MLA of Puducherry is higher than that of Arunachal Pradesh because the ratio of total population to total number of elective seats in Puducherry is greater as compared to Arunachal Pradesh.

How many of the above statements are correct?

- Only one
- Only two
- Only three
- All four

Answer: B

As per Article 54 of the Constitution, the President of India is elected by the Members of an Electoral College consisting of (a) the elected members of both Houses of Parliament, and (b) the elected members of the Legislative Assemblies of all States [including National Capital Territory of Delhi and the Union Territory of Puducherry]. The Members nominated to either House of Parliament or the Legislative Assemblies of States, including NCT of Delhi and Union Territory of Puducherry, are not eligible to be included in the Electoral College. So, statement 1 is not correct.

The value of the vote of an MP in a presidential election is based on the number of elected members in legislative assemblies of states and union territories, including Delhi, Puducherry and Jammu and Kashmir. Higher the number of elected Assembly seats, higher is the value of vote of each MLA of that state. So, statement 2 is correct.

The value of vote of each MLA of Madhya Pradesh is 131 which is less than that of Kerala where it is 152. So, statement 3 is not correct. The value of vote of each MLA of Puducherry (16) is higher than that of Arunachal Pradesh (8) because the ratio of total population to total number of elective seats in Puducherry is greater as compared to Arunachal Pradesh. So, statement 4 is correct.

- Q.81)** With reference to Indian History, Alexander Rea, A. H. Longhurst, Robert Sewell, James Burgess and Walter Elliot were associated with
- archaeological excavations
 - establishment of English Press in Colonial India
 - establishment of Churches in Princely States
 - construction of railways in Colonial India

Answer :A

All of them are archeologists.

- Q.82)** Consider the following pairs: Site: Well known for
- Besnagar : Shaivite cave shrine
 - Bhaja : Buddhist cave shrine
 - Sittanavasal: Jain cave shrine

How many of the above pairs are correctly matched?

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

Answer: B

Besnagar is famous for Heliodorus pillar.

Q.83) Consider the following statements:

Statement-I: 7th August is declared as the National Handloom Day. Statement-II : It was in 1905 that the Swadeshi Movement was launched on the same day. Which one of the following is correct in respect of the above statements?

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

Answer: A

The Swadeshi movement which was launched on 7th August, 1905 had encouraged indigenous industries and in particular handloom weavers.

Q.84) Consider the following statements in respect of the National Flag of India according to the Flag Code

of India, 2002: Statement-I : One of the standard sizes of the National Flag of India is 600 mm x 400 mm. Statement-II: The ratio of the length to the height (width) of the Flag shall be 3:2.

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

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

Answer: D

Standard size of national flag is 900*600.

Q.85) Consider the following statements

in respect of the Constitution Day: Statement-I: Constitution Day is celebrated on 26th November every year to promote constitutional values among citizens. Statement-II: On 26th November, 1949, the Constituent Assembly of India set up a Drafting Committee under the Chairmanship of Dr. B. R. Ambedkar to prepare a Draft Constitution of India. Which one of the following is correct in respect of the above statements?

- a) Both Statement-I and Statement-II are correct and

Statement-II is the correct explanation for Statement-I

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

Answer: C

Constitution day also known as "national law day", is celebrated in India on 26 November every year to commemorate the adoption of the constitution of India. Drafting committee was formed way before this date.

Q.86) Consider the following statements:

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

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

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

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

Answer: C

Exports In 2021, Switzerland exported \$86.7B in Gold, making it the 1st largest exporter of Gold in the world. At the same year, Gold was the 1st most exported product in Switzerland. But it has the seventh largest reserve in the world.

Q.87) Consider the following statements:

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

Statement-II: The USA and the EU claim that through this they are trying to bring technological progress and physical productivity under their control. Which one of the following is correct in respect of the above statements?

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

Answer: C

Recently the United States of America and the European Union have launched the Trade and Technology Council, a strategic coordination mechanism to tackle challenges at the nexus of trade, trusted technology and security.

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

Q.88) Consider the following statements : Statement-I: India accounts for 3.2% of global export of goods. Statement-II: Many local companies and some foreign companies operating in India took advantage of India's 'Production-linked Incentive' scheme.

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

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

Answer: D

As per the WTO data released in April 2019, for the year 2018, India's share in global exports for merchandise was 1.7 % and in global imports was 2.6 %. For the year 2018, for the service sector, India's share in global exports was

3.5 % and imports was 3.2 %. So, statement 1 is not correct.

Production-linked Incentive schemes are a cornerstone of the Government's push for achieving an Atmanirbhar Bharat. The objective is to make domestic manufacturing globally competitive and to create global Champions in manufacturing. The strategy behind the scheme is to offer companies incentives for incremental sales from products manufactured in India over the base year. So, statement 2 is correct

Q.89) Consider the following statements: The 'Stability and Growth Pact' of the European Union is a treaty that

- Limits the levels of the budgetary deficit of the countries of the European Union
 - Makes the countries of the European Union to share their infrastructure facilities
 - Enables the countries of the European Union to share their technologies
- How many of the above statements are correct?

- Only one
- Only two
- All three
- None

Answer: A

The Stability and Growth Pact (SGP) is a binding diplomatic agreement among European Union (EU) member states. Economic policies and activities are coordinated cohesively to safeguard the stability of the economic and

monetary union. The Stability and Growth Pact (SGP) is a set of fiscal rules designed to prevent countries in the EU from spending beyond their means and pursuing sound financial policies. So, statement 1 is correct and statements 2 and 3 are not correct.

Q.90) Consider the following statements:

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

How many of the above statements are correct?

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

Answer: A

The Global Compact for Safe, Orderly and Regular Migration is the first intergovernmental agreement, prepared under the auspices of the United Nations, to cover all dimensions of international migration in a holistic and comprehensive manner. It was adopted at an intergovernmental conference on migration in

Marrakesh, Morocco, on 10 December 2018. So, statement 1 is correct.

The Global Compact for Migration is the first-ever UN global agreement on a common approach to international migration in all its dimensions. The global compact is non-legally binding. So, statement 2 is not correct.

Upholding the prohibitions of collective expulsion and refoulement for all migrants, ensuring that returns are safe and dignified and reintegration is sustainable. So, statement 3 is not correct

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

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

How many of the above statements are correct?

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

Answer: B

Home Guards are raised under the Home Guards Act and Rules of the States/Union Territories. They are recruited from amongst all classes of people and walks of life, who give their spare time to the organisation for betterment of the community. So, statement 1 is not correct.

The role of Home Guards is to serve as an auxiliary Force to the Police in maintenance of internal security situations, help the community in any kind of emergency such as an air-raid, fire, cyclone, earthquake, epidemic etc. help in maintenance of essential services, promote communal harmony and assist the administration in protecting weaker sections, participate in socio-economic and welfare activities and perform Civil Defence duties. So, statement 2 is correct.

Fifteen Border Wing Home Guards (BWHG) Battalions have been raised in the border States viz. Punjab (6 Bns.), Rajasthan (4 Bns.), Gujarat (2 Bns.) and one each Battalion for Meghalaya, Tripura and West Bengal to serve as an auxiliary to Border Security Force for preventing infiltration on the international border/coastal areas. So, statement 3 is correct.

Q.92) With reference to India, consider the following pairs : Action : Act under which it is covered

1. Unauthorized wearing of police or military uniforms : The Official Secrets Act, 1923

2. Knowingly misleading or otherwise interfering with a police officer or military officer when engaged in their duties : The Indian Evidence Act, 1872

3. Celebratory gunfire that endanger personal safety of others : The Arms (Amendment) Act, 2019

How many of the above pairs are correctly matched?

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

Answer: B

Official Secrets act stated that Unauthorised use of uniforms, falsification of reports, forgery, personation, and false documents.—(1) If any person for the purpose of gaining admission or of assisting any other person to gain admission to a prohibited place or for any other purpose prejudicial to the safety of the State wears police or military uniform shall be guilty. So, pair 1 is correctly matched. Official secrets act stated that No person in the vicinity of any prohibited place shall obstruct, knowingly mislead or otherwise interfere with or impede, any police officer, or any member of engaged on guard, Sentry, patrol, or other similar duty in relation to the prohibited place. So, pair 2 is not correctly matched.

The Arms (Amendment) Act, 2019 ensures that those using firearms in a rash or negligent manner in celebratory gunfire, endangering

human life or personal safety of others, shall be punishable with an imprisonment to two years or with fine which may extend to Rs one lakh or with both. So, pair 3 correctly matched.

Q.93) Consider the following pairs:
Regions often mentioned in news::

Reason for being in news

1. North Kivu and Ituri: War between Armenia and Azerbaijan
2. Nagorno-Karabakh : Insurgency in Mozambique
3. Kherson and Zaporizhzhia : Dispute between Israel and Lebanon

How many of the above pairs are correctly matched?

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

Answer :D

North Kivu and Ituri are the Provinces of the Democratic Republic of the Congo. Humanitarian Emergency in North Kivu, Ituri and South Kivu in 2023. So, pair 1 is not correctly matched.

The landlocked mountainous region of Nagorno-Karabakh is the subject of an unresolved dispute between Azerbaijan, in which it lies, and its ethnic Armenian majority, backed by neighbouring Armenia. So, pair 2 is not correctly matched.

Russia carried out so-called referendums on joining Russia in the Ukrainian regions of Luhansk, Donetsk, Zaporizhzhia and

Kherson – which represent 15 percent of Ukraine's territory and are controlled by Russia. So, pair 3 is not correctly matched.

Q.94) Consider the following statements:
Statement-I: Israel has established diplomatic relations with some Arab States.

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

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

- a) Both Statement-I and Statement-II are correct and Statement-II is the 515 correct explanation for Statement-I
- b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c) Statement-I is correct but Statement-II is incorrect
- d) Statement-I is incorrect but Statement-II is correct

Answer: C

Although the diplomatic accords signed by the United Arab Emirates (UAE) and Bahrain with Israel in 2020 constituted a breakthrough in relations, the lines of communication and cooperation between the Gulf states and Israel are not new. Multiple countries in the region, including Qatar, Bahrain, and Oman, established connections with Israel in the 1990s after the Palestine Liberation Organization (PLO) and

Israel signed the Oslo Accords. So, statement 1 is correct.

The Arab Peace Initiative is a comprehensive peace plan which was proposed in 2002 by then-Crown Prince Abdullah of Saudi Arabia. The Initiative calls for an end to the conflict between Israel and the Palestinians and the normalization of relations between Israel and the entire Arab world, in exchange for an Israeli withdrawal from the areas gained by Israel during the 1967 Six Day War and a “just settlement” to the issue of Palestinian refugees. The Arab League endorsed the plan in March 2002, and readopted it in March 2007.

However, The Israeli government rejected the initiative immediately, calling it a “non-starter,” though the Quartet on the Middle East endorsed the Initiative in 2003. So, statement 2 is not correct.

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

1. Major Dhyan Chand : For Khel Ratna Award the Most spectacular And outstanding performance
2. Arjuna Award sportsperson over period of last four years : For the lifetime achievement by a sportsperson
3. Dronacharya Award: To honor eminent coaches who have successfully trained sportspersons teams
4. Rashtriya Khel Protsahan Puraskar : To recognize the

contribution made by sports persons even after retirement

How many of the above pairs are correctly matched?

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

Answer: B

Major Dhyan Chand Khel Ratna Award: The recipient(s) is/are selected by a committee constituted by the Ministry and is honoured for their “spectacular and most outstanding performance in the field of sports over a period of four years” at international level. So, pair 1 is correctly matched.

Arjun Awad: The Arjuna Award, officially known as Arjuna Awards for Outstanding Performance in Sports and Games, is the second-highest sporting honour of India. Dhyan chand award is the lifetime achievement sporting honour of India. So, pair 2 is not correctly matched.

Dronacharya Award is given to coaches for doing outstanding and meritorious work on a consistent basis and enabling sportspersons to excel in International events. So, pair 3 is correctly matched. ‘Rashtriya Khel Protsahan Puruskar’ is given to corporate entities (both in private and public sector), Sports Control Boards, NGOs, including sports bodies at the State and National level, who have played a visible role in the area of sports promotion and

development. So, pair 4 is not correctly matched

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

1. It was the first time that the Chess Olympiad was held in India.
2. The official mascot was named 'Thambi'.
2. The trophy for the winning team in the open section is the Vera Menchik Cup.
3. The trophy for the winning team in the women's section is the Hamilton-Russell Cup.

How many of the statements given above are correct?

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

Answer: B

The 44th Chess Olympiad was an international team chess event organised by the Fédération Internationale des Échecs (FIDE) in Chennai, India from 28 July to 10 August 2022. It consisted of Open and Women's tournaments, as well as several events to promote chess. The Olympiad was initially supposed to take place in Khanty-Mansiysk, Russia, along with the Chess World Cup 2019, but was later moved to Moscow and scheduled for August 2020. However, it was postponed due to the COVID-19 pandemic and then relocated to Chennai following Russia's invasion of Ukraine. This was the first Chess Olympiad to

take place in India. The Official Mascot of 44th Chess Olympiad is 'Thambi'. The word 'Thambi' in Tamil language means little or younger brother. So, statement 2 is correct. 1st place in the Open section: Hamilton-Russel Cup. So, statement 3 is not correct. 1st place in the Women's section: Vera Menchik Cup. So, statement 4 is not correct.

Q.97) Consider the following pairs: Area of conflict mentioned in news:: Country where it is located

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

How many of the above pairs are correctly matched?

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

Answer: D

The battle of Donbas is an ongoing military offensive that is part of the wider eastern Ukraine campaign of the Russian invasion of Ukraine, and a continuation of the 2014–2022 Donbas conflict.

The Kachin conflict or the Kachin War is one of the multiple conflicts which are collectively referred to as the internal conflict in Myanmar

The Tigray War was an armed conflict that lasted from 3 November 2020 to 3 November 2022. The war was primarily fought in the Tigray Region of Ethiopia.

Q.98) In recent years Chad, Guinea, Mali and Sudan caught the international attention for which

one of the following reasons common to all of them?

- Discovery of rich deposits of rare earth elements
- Establishment of Chinese military bases
- Southward expansion of Sahara Desert
- Successful coups

Answer :D

On 25 October 2021, the Sudanese military, led by General Abdel Fattah al-Burhan, took control of the Government of Sudan in a military coup.

On 5 September 2021, President of Guinea Alpha Condé was captured by the country's armed forces in a coup d'état after gunfire in the capital, Conakry.

The 2021 Malian coup d'état began on the night of 24 May 2021 when the Malian Army led by Vice President Assimi Goïta captured President Bah N'daw, Prime Minister Moctar Ouane and Minister of Defence Souleymane Doucouré.

Chadian President Idriss Déby was killed during the offensive on 20 April 2021, and his son Mahamat Déby became acting President of Chad on the same day. A special presidential election was expected in 2022. The offensive ended in a Chadian military victory, though clashes continued in the country's north.

Q.99) Consider the following heavy industries:

- Fertilizer plants
- Oil refineries

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

- Only one
- Only two
- All three
- None

Answer: C

Decarbonising the planet is one of the goals that countries around the world have set for 2050. To achieve this, decarbonising the production of an element like hydrogen, giving rise to green hydrogen, is one of the keys as this is currently responsible for more than 2 % of total global CO₂ emissions. Fertilizer plants, oil refineries and Steel plants can be decarbonized.

Q.100) Consider the following statements about G-20:

1. The G-20 group was originally established as a platform for the Finance Ministers and Central Bank Governors to discuss international economic and financial issues.

2. Digital public infrastructure is one of India's G-20 priorities.

Which of the statements given above is/are correct?

- 1 only
- 2 only
- Both 1 and 2
- Neither 1 nor 2

Answer: C

The g20 was founded in 1999 after the Asian financial crisis as a forum for the finance ministers and central bank governors to discuss

global economic and financial issues. India is pitching its digital infrastructure at G20 as an open-access platform that can aid in improving development outcomes.

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