

10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

December, 2023 2nd Week

10 PM Compilation for the Month of December [Second Week] 2023

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Art & Culture

Q.1) Which one of the following traditional instruments is used to accompany Garba music?

- a) Sitar
- b) Tabla
- c) Dhol
- d) Shehnai

Q.2) Which one of the following best describes the key characteristics of Intangible Cultural Heritages (ICH)?

- a) Living and evolving, transmitted through generations, and rooted in specific communities.
- b) Static and unchanging, solely preserved in museums and archives.
- c) Primarily commercialized and marketed for tourism purposes.
- d) Vibrant and adaptable, preserved by the people, and enriched through government funding.

Q.3) With reference to the Koya tribe, consider the following statements:

1. It is a tribe found in the Papikonda hill range, near the Godavari and Sabari rivers in Andhra Pradesh.
2. Dhangar Dance is their traditional dance performed during festivals and marriage ceremonies.
3. The Medaram Jathara festival is celebrated by the tribe.

How many of the statements given above are correct?

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

Geography

Q.4) Which one of the following factors contribute to the formation of "Heat Waves"?

- a) High pressure systems, reduced cloud cover, and dry air.
- b) Changes in ocean currents and volcanic eruptions.
- c) Low pressure systems, increased cloud cover, and high humidity.
- d) Deforestation and increased greenhouse gas emissions.

Q.5) With reference to the country Guyana, consider the following statements:

1. Amazon River flows through the heart of Guyana.
2. Amazon rainforest contributes to Guyana's rich biodiversity and is often referred to as the "lungs of the Earth".
3. It is a landlocked country.

How many of the statements given above are correct?

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

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Q.6) With reference to the formation of Cyclones in India, consider the following statements:

1. The Arabian Sea has seen a decrease in wind shear in recent years, creating a more favorable environment for cyclone formation.
2. Warm sea surface temperatures are essential for cyclone formation because they create strong winds that help the storm to develop.
3. July-September is considered the peak season for cyclones in India.
4. Tropical cyclone is the main type of cyclones that affect India.

Which of the statements given above are correct?

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

Q.7) Consider the following Protected Areas:

1. Brahmagiri Wildlife Sanctuary
2. Bandipur National Park
3. Manjira Wildlife Sanctuary
4. Nagarhole National Park
5. Nagarjunsagar-Srisailem Tiger Reserve

How many of the above Protected Areas (PAs) lie along the Cauvery Basin?

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

Q.8) With reference to the Eastern Ghats, consider the following statements:

1. Eastern Ghats biospheres are rich forests with perennial and semi-perennial streams and other natural resources.
2. The Eastern Ghats are part of a larger mountain system extending from central India to the far south and running parallel to the east coast.
3. They are continuous range of mountains.

Which of the statements given above are correct?

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

Q.9) In the process of Cloud seeding, which of the following chemicals are used?

1. Silver iodide
2. Calcium chloride
3. Silver Nitrate
4. Mercury Compounds

Select the correct answer using the codes given below:

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

Polity

Q.10) Consider the following statements:

1. It monitors and evaluates the implementation of the MGNREGA.
2. It prepares annual reports on the implementation of MGNREGA for submission to the Parliament.
3. It oversees state-level employment initiatives under MGNREGA.

In how many of the above ways does the Central Employment Guarantee Council (CEGC) play role(s) in Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)?

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

Q.11) The Chief Justice of India (CJI) is considered the "Master of the Roster" regarding the allocation of cases to different benches of the Supreme Court. In this context, the CJI's power to allocate cases is based on:

- a) Constitutional provisions
- b) Judicial precedents established over time
- c) Statutory laws enacted by Parliament
- d) Guidelines issued by the Supreme Court Bar Council

Q.12) Which landmark case in India established the 'Basic Structure Doctrine'?

- a) Keshavananda Bharati v. State of Kerala
- b) Golaknath v. State of Punjab
- c) Maneka Gandhi v. Union of India
- d) Minerva Mills v. Union of India

Q.13) With reference to the Indian Pharmacopoeia Commission (IPC), which of the following statements are correct?

1. IPC is an autonomous institution of the Ministry of Health and Family Welfare.
2. Indian Pharmacopoeia is a document that defines the requirements for the manufacturing and sale of drugs in India.
3. The standards set by the IPC for the drugs are legally binding for all manufacturers, importers, and distributors of drugs in India.

Select the correct statements using the codes given below:

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

Q.14) What is the primary rationale behind the introduction of reservation policies in India?

- a) Increase political representation of minorities
- b) Address historical social inequalities
- c) Promote economic development of specific regions
- d) Achieve cultural homogenization

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Q.15) What is the primary objective of invoking President's Rule under Article 356?

- a) To punish the state government for misconduct
- b) To control the state's political processes
- c) To promote economic development in the state
- d) To ensure smooth functioning of the state administration

Q.16) With reference to the Electoral Bond, which of the following statements is/are correct?

- 1. One of the primary purposes of electoral bonds in India's election funding system is to reduce dependence on corporate donations.
- 2. Electoral bonds differ from traditional political donations because they promote transparency through real-time disclosure.

Select the correct statements using the codes given below:

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

Q.17) Which one of the following statements best describes India's current legal status regarding "Refugees"?

- a) India has a comprehensive national legislation that addresses the rights and duties of refugees.
- b) India is a signatory to the UN Refugee Convention, 1951, due to which it grants asylum to refugees.
- c) India lacks a specific refugee law, yet it adheres to the principles of non-refoulement and provides legal frameworks for protection.
- d) India currently lacks a dedicated legal framework or specific policies for managing refugees within its borders.

Q.18) Consider the following statements:

- 1. Visitors' admission, withdrawal and removal in the Lok Sabha is governed by the Parliament Visitor's Entry Act, 1991.
- 2. Strangers can only enter the Lok Sabha with prior permission from a Member of Parliament (MP).

Select the correct statements using the codes given below:

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

Acts & Policies

Q.19) Consider the following trades:

- 1. Tailors
- 2. Boat Maker
- 3. Blacksmith
- 4. Barber

Which of the above trades are included in the 'PM Vishwakarma Scheme'?

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

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Q.20) With reference to NAMO Drone Didi Scheme (Drone Shakti Scheme) consider the following statements:

1. The scheme aims to establish India as a global leader in drone technology.
2. The scheme is primarily focused on providing financial assistance to women entrepreneurs.

Select the correct answer using the codes given below:

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

Q.21) With reference to the Indian Forest & Wood Certification Scheme (IFWCS), consider the following statements:

1. It aims to promote sustainable forest management and agroforestry in India through voluntary third-party certification.
2. Any forest with Forest & Wood Certification is automatically considered a model of sustainable forestry.
3. This Scheme offers market incentives to various entities such as state forest departments, individual farmers, FPOs, and wood-based industries, that practice responsible forest management and agroforestry.

Which of the statements given above are correct?

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

Q.22) In the context of the Unlawful Activities (Prevention) Act (UAPA), who of the following bears the responsibility of proving "reasonable grounds" for detention?

- a) The burden lies with the individual to prove their innocence.
- b) The authorities only need to present basic suspicion without concrete evidence.
- c) The burden rests with the authorities to provide substantial evidence justifying detention.
- d) The court determines the burden of proof on a case-by-case basis.

Q.23) Consider the following statements:

Statement-I: Aspirational Blocks Programme focuses on improving governance to enhance the quality of life of citizens and service delivery in the remotest and less developed blocks of India.

Statement-II: The Delta Ranking of the Aspirational Blocks Programme (ABP) is a monthly ranking system used to evaluate and incentivize progress among identified "aspirational blocks" in India.

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

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

Index & Reports

Q.24) Global Cooling Watch Report is published by -

- a) International Union for Conservation of Nature (IUCN)
- b) World Wildlife Fund (WWF)
- c) United Nations Environment Programme (UNEP)
- d) International Energy Agency (IEA)

Q.25) With reference to the Global Status Report on Road Safety 2023, consider the following statements:

- 1. It has been released by the World Health Organization (WHO).
- 2. As per the report, India has seen an increase in road traffic fatalities between 2010 to 2021.
- 3. As per the report, road crashes remain a major cause of death among youth.

How many of the statements given above are correct?

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

International Relations/Organizations

Q.26) With reference to the Interpol (International Criminal Police Organization), consider the following statements:

- 1. Its main function is to investigate and prosecute crimes on an international level.
- 2. It issues Green Notice for missing persons.
- 3. Afghanistan is a member country of Interpol.

Which of the statements given above is/are correct?

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

Q.27) With reference to Free Trade Agreements, consider the following statements:

- 1. It is a treaty between two or more countries that aims to reduce trade barriers and promote free trade between them.
- 2. It eliminates competition between countries, allowing them to share resources and technology seamlessly for the betterment of countries.

Select the correct statements using the codes given below:

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

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Q.28) With reference to the “New Delhi Declaration” adopted recently at the Global Partnership on Artificial Intelligence (GPAI) Summit, consider the following statements:

1. The declaration aims at promoting inclusive AI by ensuring equitable access to the benefits of AI for all countries and people.
2. The declaration promotes a Western model of AI for global adoption.
3. The declaration commits countries to work on addressing concerns around AI such as unemployment, lack of transparency and fairness, protection of intellectual property and personal data and threats to human rights and democratic values.

How many of the statements given above are correct?

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

Economy

Q.29) Consider the following:

1. Mediation
2. Adjudication
3. Conciliation
4. Arbitration

Which of the terms mentioned above is/are associated with the Group of Companies Doctrine (GOCD), seen in the news recently?

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

Q.30) Which one of the following is the primary distinction between a ‘Mining license’ and a ‘Composite license’ required for mineral exploration and extraction?

- a) A mining license covers only the extraction stage, while a composite license covers both exploration and extraction.
- b) A mining license is required before a composite license can be obtained.
- c) A composite license is a type of mining license with additional exploration rights.
- d) They have no difference in the stages covered, but a composite license allows for longer exploration periods.

Q.31) Consider the following statements:

1. Urea prices are fixed by the companies in the open market.
2. For phosphatic & potassic (P&K) fertilizers, the Department of Fertilizers provides an indicative Maximum Retail Price at which they are to be sold.

Which of the statements given above is/are correct?

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

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Q.32) With reference to the Female Labour Force Participation Rate (FLFPR) in India, consider the following statements:

1. A woman is considered to be a part of the labour force if she is either employed or actively looking for work.
2. Assam has the lowest FLFPR.
3. According to the World Bank, Indian women's participation in the formal economy is among the lowest in the world.

Which of the statements given above are correct?

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

Q.33) Which one of the following statements best describes the term 'Rural Enterprise'?

- a) It refers to efforts and strategies aimed at rejuvenating and enhancing the economic and social vibrancy of rural areas.
- b) These are very small-scale businesses, often operated by a small number of people, with limited capital and resources.
- c) It involves agricultural production carried out by a group of farmers who pool their resources, land, and expertise.
- d) It means a group of people with common economic interests who have formed a legally recognized organization to carry out business activities in rural areas.

Q.34) With reference to the Investor Education and Protection Fund (IEPF), consider the following statements:

1. It has been established under Companies Act, 1956 by way of Companies (Amendment) Act, 1999.
2. The amounts such as dividends, applications money, matured deposits, which have remained unpaid or unclaimed for a period of 7 years are required to be transferred to the IEPF.
3. The amount credited to IEPF is maintained under the Consolidated Fund of India.

Which of the statements given above are correct?

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

Q.35) Which one of the following statements best describes the term 'Anarcho-Capitalism', seen in the news recently?

- a) It is an ideology advocating for strong centralized authority and strict obedience to the government.
- b) It emphasizes individualism, rational self-interest, and laissez-faire capitalism.
- c) It advocates for the elimination of government intervention in economic and social affairs, promoting a society based on voluntary exchanges and free markets.
- d) It is an economic ideology where the means of production are commonly owned, and there is no private ownership.

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Q.36) Consider the following:

1. Printing Rupees
2. Selling forex reserves
3. Pegging the Rupee to the Dollar

How many of the above measures would be the most appropriate for the Reserve Bank of India (RBI) to take when the Rupee depreciates against the U.S. dollar?

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

Q.37) With reference to the Circular Economy, consider the following statements:

1. In a circular economy, the primary goal regarding resource use is to achieve a balance between resource extraction and replenishment.
2. Compared to a linear economy, a circular economy emphasizes disposal of waste in landfills and incineration.
3. Recycling materials into new products aligns with the principles of a circular economy.

Which of the statements given above is/are correct?

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

Environment

Q.38) In the context of Plastic pollution, consider the following statements:

1. The main environmental concern associated with plastic pollution is the soil erosion.
2. Montreal Protocol aims to reduce the production and use of single-use plastics.
3. Burning plastic waste can help reduce plastic pollution in the oceans.

How many of the statements given above are correct?

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

Q.39) Which one of the following international agreements has influenced India's commitment to reducing greenhouse gas emissions and promoting clean energy?

- a) Kyoto Protocol
- b) Paris Agreement
- c) Montreal Protocol
- d) Copenhagen Accord

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Q.40) If a developing country with a rapidly growing economy is requesting financial assistance for transitioning to clean energy, then which one of the following principles of 'Common But Differentiated Responsibilities (CBDR)' will be applied in this context?

- a) Equal sharing of responsibilities
- b) Historical responsibility
- c) Differential treatment based on economic facilities
- d) Common Responsibilities

Q.41) Global Cooling Pledge was signed recently during the COP28 climate summit. In this context, which of the following is NOT a key strategy outlined in the Global Cooling Pledge?

- a) Investing in renewable energy sources.
- b) Increasing energy efficiency.
- c) Protecting forests and other natural carbon sinks.
- d) Developing carbon capture and storage technologies.

Q.42) With references to the differences between 'Underground Mining and Open Pit Mining', which of the following statements is/are correct?

- 1. Open Pit Mining has a minimal disturbance to the surface compared to the Underground Mining.
- 2. Open-pit mining has a lower environmental impact than the Underground Mining.

Select the correct statements using the codes given below:

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

Q.43) With reference to the Kambalakonda Wildlife Sanctuary, consider the following statements:

- 1. Tropical rainforest is mostly found in the sanctuary.
- 2. The sanctuary is located in Andhra Pradesh.
- 3. Barking Deer is found in the sanctuary.

How many of the statements given above are correct?

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

Q.44) With reference to the Budgett Frog, seen in the news recently, consider the following statements:

- 1. They are primarily nocturnal, spending most of the day submerged in water or mud.
- 2. The size of females is larger than males.
- 3. They are categorized as 'Least Concern' on the IUCN Red List.

How many of the statements given above are correct?

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

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Q.45) With reference to the Ethanol, consider the following statements:

1. Fermentation of sugars is one of the ways of producing ethanol.
2. The combustion of ethanol releases methane gas into the atmosphere.
3. The use of ethanol as fuel raises concerns about increased water usage for crop production.

Select the correct answer using the codes given below:

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

Q.46) Recently, the central government has approved a proposal to set up a cheetah conservation breeding centre in "Banni grasslands" in Gujarat. How many of the following are the key features of Banni Grassland?

1. Abundant freshwater sources
2. Salt-Tolerant Vegetation
3. Arid Landscape

Select the correct answer using the codes given below:

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

Q.47) Which one of the following is the main objective of the Global River Cities Alliance (GRCA), recently launched at COP-28?

- a) It promotes riverfront development and tourism in member cities.
- b) It aims to advocate for the sustainable management and protection of global rivers.
- c) It aims to facilitate economic partnerships and trade between riverine cities.
- d) It coordinates scientific research and data sharing on river health.

Science & Technology

Q.48) With reference to the Spacecraft Propulsion Module, consider the following statements:

1. Its primary function is to maintain communication with ground stations.
2. Solar-powered engine is a common type of engine used in spacecraft propulsion module.
3. Chandrayaan-3 Propulsion Module was used to deliver the Vikram lander to the Moon's surface.

How many of the statements given above are correct?

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

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Q.49) With reference to the Deepfakes, consider the following statements:

1. Augmented Reality (AR) is the technology commonly used in the creation of deepfake content.
2. Financial fraud and identity theft are some potential dangers of deepfake technology.
3. Preserving historical figures and cultural artifacts is one of the positive applications of deepfake technology.

Which of the statements given above is/are correct?

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

Q.50) Consider the following statements:

1. Fusion produces less radioactive waste compared to fission.
2. Uranium and plutonium are the primary fuel sources for nuclear fusion.
3. Nuclear fusion does not produce carbon dioxide.

How many of the statements given above are correct?

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

Q.51) Consider the following statements:

1. Fostering healthy competition and discouraging collaboration
2. Creating diverse and conflicting regulations across borders
3. Harmonizing standards and promoting consistent ethical guidelines

Which of the above role(s) can international collaboration play in regulating Artificial intelligence (AI)?

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

Q.52) A foreign company wants to patent their invention in India. Which one of the following actions would be the most appropriate for the company to take?

- a) Partner with an Indian company and file a joint application
- b) Obtain permission from the Indian government
- c) File a patent application with the Indian Patent Office
- d) Publish the details in an Indian scientific journal

Q.53) With reference to the Artificial General Intelligence (AGI), consider the following statements:

1. It is a software program designed to perform a specific task better than humans.
2. AGI is capable to learn new information and skills on its own, without being explicitly programmed.
3. Self-driving cars are example of AGI.

How many of the statements given above are correct?

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

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Q.54) Consider the following statements:

1. DRESS syndrome (Drug Rash with Eosinophilia and Systemic Symptoms) is a severe, idiosyncratic reaction to a drug such as such as abacavir, allopurinol, and lamotrigine.
2. Meftal is an over-the-counter medication used to treat pain and inflammation.

Select the correct answer using the codes given below:

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

Q.55) With reference to Generative AI, consider the following statements:

1. The primary goal of generative models in AI is to optimize decision-making processes.
2. Generative adversarial networks (GANs) are a common technique used in Generative AI.

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

Q.56) Recently, Arsenic and Metal Removal by Indian Technology (AMRIT) has been developed by Indian Institute of Technology (IIT) Madras. Which one of the following underlying principles is AMRIT based on?

- a) Use of reverse osmosis membranes
- b) Chemical precipitation and coagulation
- c) Adsorption onto specific, engineered nanomaterials
- d) Biological treatment processes

Q.57) Exercise VINBAX is a joint military exercise between –

- a) India and Vietnam
- b) India and Indonesia
- c) India and Sri Lanka
- d) India and France

Q.58) CRISPR-Cas9 is a revolutionary gene-editing technology that allows scientists to make precise changes to the DNA of living organisms. In this context, which one of the following is the function of Cas9 protein in CRISPR-Cas9 technology?

- a) Recognize and bind to specific DNA sequences
- b) Amplify the target DNA sequence
- c) Repair double-strand DNA breaks
- d) Transcribe DNA into RNA

Q.59) Recently, “AKTOCYTE tablets” have been approved by the Food Safety and Standards Authority of India (FSSAI). For which one of the following purposes is the tablet approved?

- a) Cancer
- b) Malaria
- c) Tuberculosis
- d) AIDS

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Q.60) With reference to Net Neutrality, which of the following statements is/are correct?

1. It provides a resolution for the issue of congested internet highways by enabling Internet Service Provider (ISPs) to effectively oversee traffic and allocate bandwidth in a more efficient manner.
2. It prevents Internet Service Provider (ISPs) from investing in network infrastructure and innovation.

Select the correct statements using the codes given below:

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

Answer Key

1 - (c)	2 - (a)	3 - (b)	4 - (a)	5 - (a)	6 - (b)	7 - (b)	8 - (a)	9 - (b)	10 - (b)
11 - (a)	12 - (a)	13 - (d)	14 - (b)	15 - (d)	16 - (a)	17 - (c)	18 - (b)	19 - (d)	20 - (d)
21 - (c)	22 - (c)	23 - (b)	24 - (c)	25 - (c)	26 - (d)	27 - (a)	28 - (b)	29 - (d)	30 - (a)
31 - (b)	32 - (c)	33 - (d)	34 - (d)	35 - (c)	36 - (a)	37 - (d)	38 - (d)	39 - (b)	40 - (b)
41 - (a)	42 - (d)	43 - (b)	44 - (c)	45 - (d)	46 - (b)	47 - (b)	48 - (a)	49 - (c)	50 - (b)
51 - (d)	52 - (c)	53 - (a)	54 - (c)	55 - (b)	56 - (c)	57 - (a)	58 - (a)	59 - (a)	60 - (d)

Answers & Explanation

Art & Culture

1. Correct option is (C)

- Garba is a traditional dance form that originated in the western Indian state of Gujarat, and it's usually accompanied by lively and upbeat music, including singing and the sound of the dhol, which is a large barrel-shaped drum. Recently, garba has been included in the UNESCO list of Intangible Cultural Heritage. It is the 15th cultural item from India to make it to the UNESCO list of Intangible Cultural Heritage.

Source: [ForumIAS](#)

2. Correct option is (A)

- ICH is dynamic and constantly adapts to changing circumstances while retaining its core essence. Communities actively shape and modify their traditions over time, ensuring their continued relevance. ICH is not solely preserved in museums or archives; it is passed down through oral traditions, observations, and active participation within communities. This ensures its survival and cultural continuity. ICH is deeply intertwined with the history, values, and identity of specific communities. It reflects their unique perspectives and experiences, forming an integral part of their cultural heritage.

Source: [Forum IAS](#)

3. Correct option is (B)

- Statements 1 and 3 are correct. Koya tribe is found in the Papikonda hill range, near the Godavari and Sabari rivers in Andhra Pradesh. They are also found in Telangana where they are the second largest tribal community. The Medaram Jathara is one of the most significant festivals for the Koya tribe in honour of the goddesses Sammakka and Saralamma. It's a vibrant celebration of tribal culture, attracting thousands of people from various communities. It features rituals, dances, music, and a vibrant market showcasing traditional crafts and artwork.
- Statement 2 is incorrect. Permakok ata, also called the Bison Horn Dance, is practiced during festivals and marriage ceremonies by the tribe.

Source: [Forum IAS](#)

Geography

4. Correct option is (A)

- High pressure systems: When high pressure systems persist over an area, they suppress rising air and cloud formation. This allows more sunlight to reach the surface, leading to increased heating.
- Reduced cloud cover: Clouds act like a blanket, reflecting sunlight and preventing some of it from reaching the Earth's surface. Reduced cloud cover allows more solar radiation to reach the ground, further contributing to warming.
- Dry air: Dry air holds less moisture than humid air, which allows for more rapid heating. Moisture in the air acts as a buffer, absorbing some of the incoming solar radiation and preventing the temperature from rising as quickly.
- Therefore, the combination of these three factors creates favorable conditions for heat waves to develop and persist.

Source: [ForumIAS](#)

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5. Correct option is (A)

- Statements 1 and 3 are incorrect. The Amazon River does not flow through the heart of Guyana. It is the Essequibo River. Guyana is not a landlocked country. It has a coastline on the Atlantic Ocean to the north.
- Statement 2 is correct. The Amazon rainforest covers a significant portion of Guyana and contributes to its rich biodiversity. It is often referred to as the "lungs of the Earth" due to its role in absorbing carbon dioxide.

Source: [Forum IAS](#)

6. Correct option is (B)

- Statements 1 and 4 are correct. Reduced wind shear allows cyclones to maintain their vertical structure and intensify. Studies show a decrease in wind shear over the Arabian Sea, facilitating cyclone formation.
- Tropical cyclones are the most common type affecting India, forming over warm ocean waters.
- Statements 2 and 3 are incorrect. While warm sea surface temperatures are crucial for cyclone formation, they don't directly create strong winds. These winds result from the pressure difference between the cyclone's low-pressure center and the surrounding high-pressure areas.
- The peak season for the cyclone formation is from April to May and September to November.

Source: [Forum IAS](#)

7. Correct option is (B)

- The Cauvery River originates in the Western Ghats and flows through the states of Karnataka, Tamil Nadu, Kerala, and Puducherry. Brahmagiri Wildlife Sanctuary, Bandipur National Park, Nagarhole National Park, Bannerghatta National Park and Cauvery Wildlife Sanctuary lie along the Cauvery Basin.

Source: [Forum IAS](#)

8. Correct option is (A)

- Statements 1 and 2 are correct. The Eastern Ghats are home to diverse biospheres, including tropical rainforests, dry deciduous forests, and scrublands. These biospheres contain a variety of flora and fauna, with several perennial and semi-perennial streams providing a source of water and supporting ecosystems. The Eastern Ghats are part of a larger mountain system extending from central India to the far south and running parallel to the east coast.,
- Statement 3 is incorrect. The Eastern Ghats are not a continuous range of mountains. They are a series of discontinuous hill ranges interspersed with valleys and plains.

Source: [Forum IAS](#)

9. Correct option is (B)

- Cloud seeding is a kind of weather modification technology to create artificial rain. It works only when there are enough pre-existing clouds in the atmosphere. Silver iodide, Calcium chloride, dry ice are some of the common chemicals used in the process of cloud seeding. However, silver nitrate and Mercury Compounds are not used for cloud seeding process as they have significant environmental impact.

Source: [Forum IAS](#)

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Polity

10. Correct option is (B)

- Statements 1 and 2 are correct. The Central Employment Guarantee Council (CEGC) plays a vital role in overseeing the implementation of the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). This council acts as a bridge between the central government and state governments, ensuring the smooth and effective operation of the program across the country.
- It monitors and evaluates the implementation of the MGNREGA. It regularly reviews data and reports on the program's implementation, identifying areas for improvement and ensuring effective program delivery.
- It prepares annual reports on the implementation of MGNREGA for submission to Parliament. The CEGC compiles and submits annual reports to the Parliament, providing detailed information on the program's performance, including key statistics, achievements, and challenges.
- Statement 3 is incorrect. The CEGC does not directly oversee state-level employment initiatives under MGNREGA. That responsibility lies with the State Employment Guarantee Councils (SEGCs) and Panchayati Raj Institutions (PRIs).

Source: [Forum IAS](#)

11. Correct option is (A)

- The CJI's power to allocate cases is derived primarily from Article 145 of the Indian Constitution. This article grants the CJI the authority to allocate cases to different benches of the Supreme Court. The CJI exercises this power in consultation with other senior judges, but ultimately holds the final say in the allocation process.

Source: [Forum IAS](#)

12. Correct option is (A)

- Keshavananda Bharati v. State of Kerala (1973) was the landmark case that defined the concept of the basic structure. The 13-judge bench in Keshavananda Bharati ruled that Parliament could not alter the Constitution's foundational principles. This established the Basic Structure Doctrine as a cornerstone of Indian constitutional jurisprudence.

Source: [Forum IAS](#)

13. Correct option is (D)

- Statements 1, 2 and 3 are correct. IPC is an autonomous institution of the Ministry of Health and Family Welfare. IPC is created to set standards of drugs in the country. Its basic function is to regularly update the standards of drugs commonly required for treatment of diseases prevailing in the region. It publishes official documents for improving Quality of Medicines by way of adding new and updating existing monographs in the form of Indian Pharmacopoeia (IP). IP serves as a reference standard that defines the essential requirements for the manufacturing and sale of drugs in India. The Drugs and Cosmetics Act, 1940 and its associated rules legally enforce compliance with the IP standards for all entities involved in the pharmaceutical industry within India. This ensures the quality and safety of drugs available in the country.

Source: [Forum IAS](#)

14. Correct option is (B)

- Reservation policies in India were introduced to address the historical social inequalities that have existed in the country for centuries, particularly among marginalized communities such as the Scheduled Castes, Scheduled Tribes, and Other Backward Classes. The goal of reservation policies is to

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provide access to education, employment, and political representation to these communities, who have historically faced discrimination and exclusion.

Source: [Forum IAS](#)

15. Correct option is (D)

- Article 356 of the Indian Constitution is invoked to ensure the smooth functioning of the state administration when the government of a state cannot be carried on in accordance with the provisions of the Constitution.

Source: [Forum IAS](#)

16. Correct option is (A)

- Statement 1 is correct. One of the primary purposes of electoral bonds is to reduce the reliance on corporate donations, which can often lead to a potential conflict of interest. It aims to diversify the sources of funding for political parties.
- Statement 2 is incorrect. Electoral bonds are designed to promote anonymity of donors, not transparency. Unlike traditional political donations where the donor's identity is disclosed to the public and Election Commission, electoral bonds allow donors to remain anonymous.

Source: [Forum IAS](#)

17. Correct option is (C)

- India doesn't have a comprehensive national law specifically for refugees. While various laws and regulations influence their status and rights, there's no single, dedicated legislation. India is also not a signatory to the UN Refugee Convention, 1951.
- While India lacks a dedicated refugee law, it does have legal frameworks and policies in place. The Foreigners Act, 1946, and other related laws offer some protection and govern the entry, stay, and departure of foreigners, including refugees.
- Hence option (c) is correct.

Source: [Forum IAS](#)

18. Correct option is (B)

- Statement 1 is incorrect. Visitors' admission, withdrawal and removal in the Lok Sabha is governed by Rule 386 and 387 of the Rules of Procedure and Conduct of Business in the Lok Sabha.
- Statement 2 is correct. Strangers can only enter the Lok Sabha with prior permission from a member of Parliament (MP). Visitors such as academics, students, and members of the general public are frequently admitted in the Parliament. They ask MPs for passes so they can observe how laws are made. MPs requesting visitor passes must give a declaration that they know the guest personally and take full responsibility for him or her.

Source: [Forum IAS](#)

Acts & Policies

19. Correct option is (D)

- The trades included in the PM Vishwakarma Scheme are: Carpenter (Suthar/Badhai), Boat Maker, Armourer, Blacksmith (Lohar), Hammer and Tool Kit Maker, Locksmith, Goldsmith (Sonar), Potter (Kumhaar), Sculptor (Moortikar, stone carver), Stone breaker, Cobbler (Charmkar)/ Shoemith/

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Footwear artisan, Mason (Rajmistri), Basket/Mat/Broom Maker/Coir Weaver, Doll & Toy Maker (Traditional), Barber (Naai), Garland maker (Malakaar), Washerman (Dhobi), Tailor (Darzi).

Source: [Forum IAS](#)

20. Correct option is (D)

- Statements 1 and 2 are incorrect. The scheme does not have the primary objective of establishing India as a global leader in drone technology. Its main aim is to empower women by providing them access to drone technology and training to improve their livelihoods through agriculture. The scheme does not provide direct financial assistance to women entrepreneurs. It focuses on providing access to drone technology and training to improve their agricultural practices and increase their income.

Source: [Forum IAS](#)

21. Correct option is (C)

- Statements 1 and 3 are correct. IFWCS encourages voluntary participation from various stakeholders like forest departments, communities, and wood-based industries to adopt sustainable practices for forest management and agroforestry. Third-party certification ensures independent verification and adherence to the IFWCS standards. The IFWCS offers several market incentives like premium prices for certified wood products, access to international markets, and preferential procurement by government agencies. This encourages stakeholders to adopt sustainable practices, leading to improved resource utilization, environmental benefits, and economic growth.
- Statement 2 is incorrect. Having an IFWCS certification doesn't automatically make a forest a model of sustainable forestry. While certification is an important indicator of responsible management practices, it's not the only criterion for determining sustainability. Other factors such as the forest's biodiversity, the well-being of local communities, and the long-term health of the ecosystem should also be taken into account.

Source: [Forum IAS](#)

22. Correct option is (C)

- The authorities need to provide substantial evidence to establish "reasonable grounds" for detention under UAPA. In other words, the burden of proof is on the government to show that there's a legitimate reason to detain someone. "Reasonable grounds" requires concrete evidence that suggests the person has committed or is about to commit an unlawful activity.

Source: [Forum IAS](#)

23. Correct option is (B)

- Statements 1 and 2 are correct. Aspirational Blocks Programme focuses on improving governance to enhance the quality of life of citizens and service delivery in the remotest and less developed blocks of India. It is a development initiative aimed at improving the performance of areas that are lagging on various development parameters. The program aims to uplift the quality of life of citizens in these blocks by addressing their specific needs and challenges.
- The Delta Ranking is a key component of the Aspirational Blocks Programme. It is a monthly ranking system that evaluates the progress made by identified "aspirational blocks" in various development parameters. The ranking is based on the incremental progress made across key performance indicators (KPIs) under different socio-economic themes such as health, education, agriculture, infrastructure, etc. The ranking system aims to incentivize and encourage the blocks to improve their performance and compete with each other for better development outcomes.

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- Therefore, both statements are correct, but Statement-II does not provide an explanation for Statement-I.

Source: [Forum IAS](#)

Index & Reports

24. Correct Option is (C)

- The Global Cooling Watch Report is a product of UNEP's Cool Coalition, which is a global network of organizations and individuals working to advance the transition to efficient, climate-friendly cooling. The report assesses the current state of the cooling sector and identifies the policies and investments needed to shift to efficient and sustainable cooling solutions.
- Recently, the Global Cooling Watch 2023 Report titled "Keeping it Chill: How to meet cooling demands while cutting emissions" was released.

Source: [Forum IAS](#)

25. Correct option is (C)

- Statements 1, 2 and 3 are correct. Global Status Report on Road Safety 2023 has been released by the World Health Organization (WHO). As per the report, India saw a 15% increase in road traffic fatalities rising from 1.34 lakh in 2010 to 1.54 lakh in 2021. Road crashes remain a major cause of death among youth (5-29 years) and the 12th leading cause of deaths among all age groups.

Source: [Forum IAS](#)

International Relations/Organizations

26. Correct option is (D)

- Statements 1 and 2 are incorrect. Interpol does not directly investigate or prosecute crimes. Its primary function is to facilitate cooperation between national police forces in different countries. It does this by providing a communication channel, sharing information, and coordinating investigations. Yellow Notices are issued for missing persons.
- Statement 3 is correct. INTERPOL has 196 member countries, making it the world's largest police organization. They work together and with the General Secretariat to share data related to police investigations. Afghanistan is a member of Interpol.

Source: [Forum IAS](#)

27. Correct option is (A)

- Statement 1 is correct. FTA is a treaty between two or more countries that aims to reduce trade barriers and promote free trade between them. By lowering tariffs, quotas, and other trade restrictions, FTAs aim to facilitate the flow of goods and services between member countries, fostering economic growth and cooperation.
- Statement 2 is incorrect. While FTAs can facilitate cooperation between countries, they don't eliminate competition. Companies within the FTA will still compete for market share, investment, and technological advancements. This competition can drive innovation and efficiency, ultimately benefiting consumers. FTAs don't guarantee seamless sharing of resources and technology. This depends on various factors like intellectual property rights, technological capabilities, and willingness to collaborate. Countries often protect their own strategic industries and technologies. Resource and technology sharing can also be unevenly distributed, potentially benefiting developed countries more than developing ones.

Source: [Forum IAS](#)

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28. Correct option is (B)

- Statements 1 and 3 are correct. The New Delhi Declaration emphasizes the importance of inclusive AI, advocating for equitable access to its benefits for all countries and individuals. This includes efforts to bridge the digital divide, promote open-source AI solutions, and support capacity building in developing nations. The declaration commits countries to work on addressing concerns around AI such as unemployment, lack of transparency and fairness, protection of intellectual property and personal data and threats to human rights and democratic values.
- Statement 2 is incorrect. The declaration does not promote a specific model of AI. It seeks to establish global principles and norms for the responsible development and use of AI, adaptable to diverse contexts and needs. It encourages countries to develop their own AI strategies while aligning them with the shared principles outlined in the declaration.

Source: [Forum IAS](#)

Economy

29. Correct option is (D)

- The Group of Companies Doctrine (GOCD) is related to the process of arbitration. The GOCD is a legal principle that states that two or more related companies, or companies within the same group, can be treated as one entity for the purposes of arbitration. It allows for the consolidation of multiple disputes involving different companies in the same group, into a single arbitration proceeding.

Source: [ForumIAS](#)

30. Correct option is (A)

- Mining License: This license grants the right to extract minerals from an area where the presence and quantity of the mineral resource are already established. It doesn't cover exploration activities like surveying, drilling, or resource estimation, which are required before extraction can begin.
- Composite License: This license combines both exploration and extraction rights. It allows the holder to conduct exploration activities to determine the presence, extent, and quality of the mineral resource in the specific area, followed by extraction if the results are economically viable.

Source: [ForumIAS](#)

31. Correct option is (B)

- Statement 1 is incorrect. Urea is the only fertilizer with statutorily controlled price & movement. Urea prices in India are controlled by the government through a policy called the New Pricing Scheme. The government sets a maximum retail price for urea and also provides subsidies to farmers to make it more affordable.
- Statement 2 is correct. The Department of Fertilizers provide an indicative Maximum Retail Price for phosphatic & potassic (P&K) fertilizers. These prices serve as a guideline for retailers and distributors, but they are not mandatory.

Source: [ForumIAS](#)

32. Correct option is (C)

- Statements 1 and 3 are correct. A woman is considered to be a part of the labour force if she is either employed or actively looking for work. According to the World Bank, Indian women's participation in the formal economy is among the lowest in the world.
- Statement 2 is incorrect. Based on the latest data from the Periodic Labour Force Survey (PLFS), there are only four states (Assam, Bihar, Haryana and Delhi) with an FLFPR of less than 25%. Among UTs, Delhi has the lowest at 14.8% whereas Bihar (10%) has the lowest among states.

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Source: [Forum IAS](#)

33. Correct option is (D)

- Of the options mentioned above, (d) best describes the term Rural Enterprise. Rural Enterprise means a group of people with common economic interests who have formed a legally recognized organization to carry out business activities in rural areas.

Source: [Forum IAS](#)

34. Correct option is (D)

- Statements 1, 2 and 3 are correct. IEPF has been established under Companies Act, 1956 by way of Companies (Amendment) Act, 1999. The amounts such as dividends, applications money, matured deposits, which have remained unpaid or unclaimed for a period of 7 years are required to be transferred to the IEPF. The amount credited to IEPF is maintained under the Consolidated Fund of India.

Source: [Forum IAS](#)

35. Correct option is (C)

- Anarcho-capitalism is a political philosophy that advocates for a society without a centralized state or government, where voluntary exchanges and free markets govern economic and social interactions. It's often associated with individualism and libertarianism. It basically argues that the free market can provide all the goods and services needed for society to function without the need for a government.

Source: [Forum IAS](#)

36. Correct option is (A)

- Printing Rupees: Printing more rupees simply increases the money supply in the system, leading to inflation and worsening the rupee's depreciation. It has detrimental long-term consequences.
- Selling forex reserves: By selling US dollars from its reserves and buying rupees, the RBI can directly increase the supply of rupees in the market, putting upward pressure on its value. This is a standard intervention technique, better and a suitable approach.
- Pegging the Rupee to the Dollar: While pegging the rupee to the dollar might stabilize the exchange rate, it comes at a significant cost. It limits flexibility because the Reserve Bank of India (RBI) would have to follow the interest rate decisions of the U.S. Federal Reserve. This means the RBI would lose control over its own monetary policy, possibly hurting India's domestic economic requirements.
- In addition to selling forex reserves, the RBI can also consider other measures, such as: Raising interest rates, Selling government securities, structural reforms, etc.

Source: [The Times of India](#)

37. Correct option is (D)

- Statements 1 and 2 are incorrect. In a circular economy, the primary goal regarding resource use is to minimize resource use and promote regeneration, not necessarily to achieve a balance between extraction and replenishment. Compared to a linear economy, a circular economy emphasizes minimizing waste and promoting recycling rather than disposal in landfills and incineration.
- Statement 3 is correct. Recycling materials into new products aligns with the principles of a circular economy. It allows materials to stay in the production cycle for longer, reducing the need for extraction and waste generation. Recycling is a crucial component of a circular system. However, the circular economy aims to go beyond recycling and explore other approaches like designing for durability, upcycling, and resource recovery.

Source: [Forum IAS](#)

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Environment

38. Correct option is (D)

- Statements 1, 2 and 3 are incorrect. While plastic pollution can have negative impacts on soil health and fertility, the main environmental concern associated with it is the devastating impact on marine ecosystems and wildlife. Studies show that plastic accounts for 85% of all marine litter, posing a significant threat to marine life through entanglement, ingestion, and habitat destruction.
- The Montreal Protocol is an international agreement to protect the ozone layer, not to reduce single-use plastics. The Basel Convention aims to reduce the generation and movement of hazardous wastes, including plastic waste, across borders.
- Burning plastic waste releases harmful pollutants into the air, contributing to air pollution and respiratory problems. Moreover, burning plastic does not eliminate it; instead, it converts it into harmful ash and toxic gases that can further contaminate the environment. Burning plastic is not an effective solution for plastic pollution and can actually exacerbate the problem.

Source: [Forum IAS](#)

39. Correct option is (B)

- India ratified the Paris Agreement in 2016, committing to reducing its greenhouse gas emissions and moving towards a more sustainable, low-carbon economy. The agreement set targets for reducing emissions, including a commitment to increase the share of renewable energy in India's energy mix to 40% by 2030.

Source: [Forum IAS](#)

40. Correct option is (B)

- The CBDR principle recognizes that developed countries have greater historical responsibility for the causes of climate change, and thus should bear a greater responsibility for addressing it. So, by requesting financial assistance to transition to clean energy, the rapidly growing developing country is invoking the principle of historical responsibility.

Source: [Forum IAS](#)

41. Correct option is (A)

- The Global Cooling Pledge, launched at COP28, aims to tackle the growing challenge of emissions from air conditioning and refrigeration. While investing in renewable energy sources is a critical step in addressing climate change, it's not specifically listed as a strategy in the pledge. The other three options - increasing energy efficiency, protecting natural carbon sinks, and developing carbon capture and storage technologies - are all mentioned as key strategies in the pledge.

Source: [Forum IAS](#)

42. Correct option is (D)

- Statement 1 is incorrect. Open-pit mining involves digging large pits on the surface, leading to significant land clearing, deforestation, soil erosion, and habitat fragmentation. This has a major negative impact on ecosystems and biodiversity. In contrast, underground mining has a much smaller footprint compared to the widespread disruption caused by open-pit mining.
- Statement 2 is incorrect. Open-pit mining generally has a higher environmental impact than underground mining due to several factors such as: Dust and pollution, Water pollution, leave lasting scars on the landscape, affecting scenic beauty and potentially impacting tourism potential which also leads to habitat fragmentation, deforestation, and soil erosion.

Source: [Forum IAS](#)

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43. Correct option is (B)

- Statement 1 is incorrect. Kambalakonda Wildlife Sanctuary is classified as a dry evergreen forest mixed with scrub and meadows.
- Statements 2 and 3 are correct. Kambalakonda Wildlife Sanctuary is located near Visakhapatnam in the state of Andhra Pradesh. Barking deer are among the mammals found in the Kambalakonda Wildlife Sanctuary. They are small, herbivorous deer known for their distinctive barking call.

Source: [Forum IAS](#)

44. Correct option is (C)

- Statements 1, 2 and 3 are correct. Budgett Frog is a species of frog which belongs to the horned frog family, Ceratophryidae. They are primarily nocturnal, spending most of the day submerged in water or mud. The size of females is larger than males. They are categorized as 'Least Concern' on the IUCN Red List.

Source: [Forum IAS](#)

45. Correct option is (D)

- Statements 1 and 3 are correct. Fermentation of sugars from crops like corn, sugarcane, or wheat is the most common method of industrial ethanol production. Growing crops for ethanol production requires significant amounts of water, which can strain water resources in some regions.
- Statement 2 is incorrect. Ethanol combustion primarily releases carbon dioxide and water vapor, not methane.

Source: [Forum IAS](#)

46. Correct option is (B)

- Banni grasslands is located in the Kutch region of Gujarat. It's known for its salt-tolerant vegetation and diverse wildlife, including many bird species and domesticated animals like sheep, goats, and camels. It's an interesting habitat because it's arid and salt-tolerant, which means that it can support a unique ecosystem. The Banni Grassland's key features are: Arid landscape with seasonal wetlands, Salt-tolerant vegetation and diverse fauna, Traditional pastoralism and cultural significance, ongoing conservation efforts and unique soil composition, Seasonal variations in landscape and ecology.
- While the Banni has the Chhari Dhand lake which fills up seasonally, it generally lacks permanent rivers or streams. The aridity and scarcity of water are defining characteristics of the Banni. Wetlands and grasslands coexist in Banni. Maldari tribe are found here.

Source: [Forum IAS](#)

47. Correct option is (B)

- The GRCA aims for sustainable river management, advocating for policies and practices that prioritize the health and wellbeing of rivers. The alliance aspires to promote awareness about the importance of healthy rivers and to inspire governments, corporations, and communities to take action to conserve and maintain these critical resources by bringing together a broad range of cities and partners. While riverfront development and economic partnerships are important aspects of the GRCA's work, its primary focus is on sustainable management and protection of global rivers.
- The GCRA extends the River Cities Alliance, initially established by NMCG in 2021.

Source: [Forum IAS](#)

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Science & Technology

48. Correct option is (A)

- Statements 1 and 2 are incorrect. The primary function of the Spacecraft Propulsion Module is to provide the thrust and power needed to move the spacecraft through space, not to maintain communication with ground stations.
- Solar-powered engines are not a common type of engine used in spacecraft propulsion modules. They're still a relatively new and experimental technology, and not yet widely used in spacecraft.
- Statement 3 is correct. The Chandrayaan-3 Propulsion Module was used to deliver the Vikram lander to the Moon's surface, as part of India's Chandrayaan-3 mission.

Source: [ForumIAS](#)

49. Correct option is (C)

- Statement 1 is incorrect. Augmented reality (AR) puts digital stuff on the real world, like adding filters to one's face on a camera. Deepfakes, on the other hand, use smart computer programs to make fake videos and pictures that look real. They are two different technologies.
- Statements 2 and 3 are correct. Financial fraud and identity theft are significant dangers associated with deepfake technology. Malicious actors can use deepfakes to impersonate individuals, manipulate financial records, and deceive victims into transferring money or revealing sensitive information.
- Preserving historical figures and cultural artifacts is a valuable application of deepfakes. By using deepfakes, we can create realistic recreations of historical figures and events, making history more engaging and accessible to a wider audience. Additionally, deepfakes can be used to restore damaged or lost cultural artifacts, preserving them for future generations.

Source: [ForumIAS](#)

50. Correct option is (B)

- Statements 1 and 3 are correct. Fusion reactions produce significantly less radioactive waste compared to fission reactions. This is because fusion reactions involve the merging of light nuclei, while fission reactions involve the splitting of heavy nuclei. Fusion doesn't produce carbon dioxide like fossil fuels do. It's considered a clean energy source because it doesn't produce air pollution or contribute to climate change.
- Statement 2 is incorrect. Uranium and plutonium are the primary fuel sources for nuclear fission, not fusion. Fusion reactions require isotopes of hydrogen, primarily deuterium and tritium, as fuel.

Source: [ForumIAS](#)

51. Correct option is (D)

- International collaboration provides a platform for diverse stakeholders to come together, share perspectives, and develop common ground on ethical principles and best practices for AI development and deployment.
- This collaborative approach can lead to the creation of consistent and widely accepted AI standards that can be implemented across different countries and regions.
- By working together, governments, industry leaders, civil society organizations, and academics can create a global framework for responsible AI development that benefits all stakeholders.

Source: [ForumIAS](#)

52. Correct option is (C)

- Joint application: While partnering with an Indian company can offer some advantages, it's not essential for filing a patent application. The company can file directly with the Indian Patent Office.

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- Government permission: This is typically required only for specific types of inventions related to national security or sensitive areas. It's not a general requirement for patenting most inventions.
- Publication in a scientific journal: Sharing information through publication can be helpful, but it might make it harder to get a patent for the invention because it could no longer be considered new or novel. Publishing details before filing a patent application is not advisable.
- Filing a patent application: This is the primary and crucial step for securing patent protection in India. The company can submit the application directly to the Indian Patent Office, adhering to the established procedures and document requirements.

Source: [Forum IAS](#)

53. Correct option is (A)

- Statements 1 and 3 are incorrect. AGI is not designed to perform a specific task better than humans, but to perform any intellectual task on a human-like level. Self-driving cars are classified as Artificial Narrow Intelligence (ANI). They are designed to excel at specific tasks like driving, but lack the general intelligence and broader cognitive abilities of AGI.
- Statement 2 is correct. AGI is characterized by its ability to learn and adapt to new information and skills, similar to how humans learn.

Source: [Forum IAS](#)

54. Correct option is (C)

- Statements 1 and 2 are correct. DRESS syndrome (Drug Rash with Eosinophilia and Systemic Symptoms) is a severe, idiosyncratic reaction to a drug such as such as abacavir, allopurinol, and lamotrigine. It is characterised by a delayed onset of symptoms including fever, skin rash, lymphadenopathy (swelling of lymph nodes), eosinophilia (an increase in a type of white blood cells) and various systemic manifestations. The syndrome has an estimated mortality rate of 10 per cent.
- Meftal is an over-the-counter medication used to treat pain and inflammation. It contains the active ingredient mefenamic acid, which belongs to a class of drugs known as nonsteroidal anti-inflammatory drugs (NSAIDs). It is often prescribed for conditions like rheumatoid arthritis, menstrual pain, dental pain, inflammation, fever, etc.

Source: [Forum IAS](#)

55. Correct option is (B)

- Statement 1 is incorrect. The goal of generative models is not to optimize decision-making processes, but rather to generate new data that resembles the training data. This can be used for a variety of purposes, such as data augmentation, synthetic data generation, or creative applications like art and music generation.
- Statement 2 is correct. Generative adversarial networks (GANs) are a popular technique used in Generative AI. GANs consist of two neural networks that work against each other to generate high-quality, realistic data. The generator network creates new data based on the training data, while the discriminator network tries to differentiate between real and generated data.

Source: [Forum IAS](#)

56. Correct option is (C)

- In the AMRIT process, arsenic and other metal ions are removed from contaminated water by adsorbing onto the surface of specially designed nanomaterials. This process works by taking advantage of the high surface area-to-volume ratio of nanoparticles, which allows for more adsorption sites and a higher rate of removal. One of the advantages of this approach is that it's highly selective

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and efficient, meaning that it can effectively remove contaminants without removing other beneficial minerals from the water. This makes AMRIT a promising technology for water treatment in areas with contaminated groundwater.

Source: [Forum IAS](#)

57. Correct option is (A)

- Exercise VINBAX is a joint military exercise between India and Vietnam. The objective of the exercise is to foster collaborative partnership and promote interoperability between the armed forces of the two countries. The exercise includes training in counter-insurgency operations, counter-terrorism operations, humanitarian assistance and disaster relief, and other areas of mutual interest.

Source: [Forum IAS](#)

58. Correct option is (A)

- CRISPR-Cas9 is a powerful gene-editing technology that allows scientists to precisely alter the DNA of living organisms. It's considered a revolutionary tool with the potential to transform various fields, including medicine, agriculture, and biotechnology. Recognizing and binding to specific DNA sequences is the primary function of the Cas9 protein in CRISPR-Cas9 technology. It relies on the guide RNA to guide it to the target DNA sequence and then binds to it tightly. This allows for precise targeting and editing at specific locations.

Source: [Forum IAS](#)

59. Correct option is (A)

- AKTOCYTE tablets have been granted approval by the Food Safety and Standards Authority of India (FSSAI) for the purpose of cancer treatment. AKTOCYTE tablets are designed to be used during cancer treatment to minimize the side effects of radiotherapy. The Department of Atomic Energy and M/s. IDRS Labs Pvt. Ltd. Bengaluru have collaborated to develop AKTOCYTE tablets. The tablets have been developed with the aim of enhancing the effectiveness of cancer treatment while reducing its adverse effects.

Source: [Forum IAS](#)

60. Correct option is (D)

- Statements 1 and 2 are incorrect. Net Neutrality does not enable ISPs to oversee traffic and allocate bandwidth in a more efficient manner. Instead, it prevents ISPs from blocking, throttling, or prioritizing certain types of internet traffic. This means that ISPs cannot intentionally slow down or speed up specific content or services based on their own preferences or financial interests.
- Net Neutrality does not prevent ISPs from investing in network infrastructure and innovation. It simply ensures that these investments do not result in discriminatory practices that could harm competition, limit consumer choice, or stifle innovation. Net Neutrality promotes a level playing field for all internet users and encourages ISPs to compete based on the quality and affordability of their services, rather than by manipulating internet traffic.

Source: [Forum IAS](#)