

10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

[3rd Week] February, 2024

10 PM Compilation February [Third Week] 2024

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Art & Culture

Q.1) Consider the following statements:

1. The paintings and sculptures in the Ajanta Caves illustrate the life and teachings of the Buddha.
2. Mosaic art painting has been used to create the intricate paintings found in the Ajanta and Ellora Caves.

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.2) Consider the following statements with respect to the 'Kokborok Language':

1. It is one of the state languages of Tripura.
2. It belongs to the Dravidian language family.

Which of the statement(s) given above is/are correct?

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

Q.3) With reference to the Bharat Ratna award, consider the following statements:

1. It is India's highest literary award.
2. The announcement of award recipients usually occurs annually on India's Independence Day.
3. The recommendations for Bharat Ratna are made by the Prime Minister to the President.

How many of the statements given above are correct?

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

Q.4) With reference to the Dhokra Shilpkala sculptures, consider the following statements:

1. Dhokra Shilpkala sculptures often depict animals and everyday objects.
2. It is a traditional art form known for its clay casting methods.

Which of the statement(s) 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.5) With reference to the Bochasanwasi Akshar Purushottam Swaminarayan Sanstha Mandir, recently inaugurated at Abhu Dhabi, consider the following statements:

1. It is built in traditional Vesara style of architecture.
2. Temple is surrounded by 'Dome of Harmony' and 'Dome of Peace.'
3. The temple has been built using cement.
4. The temple houses seven shrines.

Which of the statements given above are correct?

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

Geography

Q.6) Consider the following statements with respect to the Gomti River:

1. It joins river Ganga near Kanpur.
2. It is a perennial river.
3. Kalyani is one of its tributaries.

How many of the statements given above are correct?

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

Q.7) Which of the following two countries were bordered by the 'Aral Sea'?

- a) Kazakhstan and Uzbekistan
- b) Russia and Turkmenistan
- c) Uzbekistan and Tajikistan
- d) Kyrgyzstan and Turkmenistan

Q.8) With reference to El Niño, consider the following statements:

1. It is a weather phenomenon caused by a shift in ocean currents and temperatures in the Pacific Ocean.
2. It leads to cooler temperatures throughout the India.
3. It leads to increased crop yields due to favorable weather conditions.

How many of the statements given above are correct?

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

Polity

Q.9) With reference to the Quality Council of India (QCI), consider the following statements:

1. The Chairman of QCI is appointed by the Prime Minister on the recommendation of the industry to the government.
2. It audits and penalizes businesses for quality violations.

Which of the statement(s) given above is/are correct?

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

Q.10) Consider the following statements:

1. It is a government-owned property but usually not directly managed as state property.
2. It is often leased to entities for fixed periods.
3. It can be used for constructing public schools, hospitals, etc. by the government.

How many of the above-mentioned statements describe features of a 'Nazool land'?

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

Q.11) With reference to the National Judicial Academy (NJA), consider the following statements:

1. It is fully funded by the Government of India.
2. The Prime Minister of India serves as the Chairman of the General Body of NJA.
3. It provides financial assistance to underprivileged individuals seeking legal aid.

How many of the statements given above are correct?

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

Q.12) With reference to the National Credit Framework (NCrF), which of the following statements are correct?

1. Under the framework, students can earn credits for practical work experience, internships, or other forms of work-based learning.
2. Credits earned by students have a fixed monetary value for financial aid purposes.
3. Under the framework, every learning hour can be creditized subject to its assessment.
4. It strictly enforces a rigid separation between different areas of learning, such as arts and sciences, vocational and academic streams, curricular and extra-curricular activities, for the purpose of assignment of credits and credit levels.

Select the correct answer using the codes given below:

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

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Q.13) Which one of the following is the primary purpose of community radio stations in India?

- a) Play popular music and compete with commercial stations.
- b) Offer a platform for public service announcements and government messages.
- c) Cater to a specific local community and address their needs and interests.
- d) Promote national unity and cultural homogenization.

Q.14) Under Article 87 of the Indian Constitution, the President's special address at the commencement of the first session after a general election and the first session of each year indicates:

- a) The opportunity for the Opposition to present a vote of no-confidence.
- b) The formal start of the legislative process for that period.
- c) The introduction of the annual budget by the Finance Minister.
- d) The President's power to dissolve the Lok Sabha.

Q.15) With reference to the National Consumer Disputes Redressal Commission (NCDRC), consider the following statements:

- 1. The Commission is headed by a sitting or retired Judge of the Supreme Court of India or a sitting or retired Chief Justice of the High Court.
- 2. Only registered consumer organizations are eligible to file a complaint directly with the NCDRC.
- 3. It can hear appeals against the decisions of both State and District Consumer Dispute Redressal Forums.

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

Acts & Policies

Q.16) Consider the following components:

- 1. Formalizing the sector through digital registration
- 2. Increasing import tariffs on seafood products
- 3. Facilitating adoption of aquaculture insurance
- 4. Providing free fishing boats to all fishers

How many of the above are the components of Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana (PM-MKSSY)?

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

Q.17) Which one of the following is the objective of 'Kilkari Programme'?

- a) Provide financial assistance to pregnant women.
- b) Improve maternal health and newborn care through community mobilization.
- c) Promote institutional deliveries in government hospitals.
- d) Offer nutritional supplements to pregnant and lactating mothers.

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Q.18) Which one of the following is the objective of 'Swadesh Darshan Scheme'?

- a) Promote international tourism destinations in India.
- b) Develop theme-based tourist circuits within India.
- c) Provide financial assistance to budget travelers.
- d) Encourage foreign direct investment in the tourism sector.

Q.19) Which one of the following best describes the function of the Sandbox for Agricultural and Rural Security, Technology and Insurance (SARTHI) portal?

- a) Providing low interest rates loans to farmers in India
- b) Facilitating the delivery of insurance products and services to farmers
- c) Monitoring crop health and predicting yield in real-time using satellite data
- d) Serving as a centralized marketplace for farmers to sell agricultural produce

Q.20) With reference to the Middle-Class Housing Scheme, consider the following statements:

1. The scheme is an extension of the Pradhan Mantri Awas Yojana (PMAY).
2. It aims to enable access to affordable housing for middle-income families.

Which of the statement(s) given above is/are correct?

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

Q.21) Which one of the following statements is correct regarding "Science for Women: A Technology & Innovation" (SWATI) portal?

- a) It is a database highlighting accomplishment of Indian women in STEMM fields.
- b) It is a platform for Indian women to learn about science and technology.
- c) It is a government initiative to promote gender parity in the workplace.
- d) It is a social media platform for women in science.

Q.22) With reference to the Production Linked Incentive (PLI) scheme, consider the following statements:

1. Under the scheme, the participating company gets guaranteed profits irrespective of performance.
2. The scheme promotes import substitution and self-reliance.
3. The scheme is open to both domestic and foreign companies.

How many of the statements given above are correct?

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

Index & Reports

Q.23) What one of the following is the primary focus of the "Prabhaav" report?

- a) Evaluating the overall performance of Indian startups.
- b) Assessing the impact of government initiatives on social welfare.
- c) Analyzing the effectiveness of the Fund of Funds for Startups (FFS).
- d) Comparing different investment strategies for small businesses.

International Relations/Organizations

Q.24) With reference to India-Africa relations, consider the following statements:

- 1. India has increased its investments in Africa to boost Africa's economic growth and reduce the poverty levels in the Global South.
- 2. Military intervention in internal conflicts is a key pillar of India's engagement with Africa.
- 3. India-Africa share security cooperation synergies on issues like curbing piracy, humanitarian and Disaster Relief (HADR) and maritime security.

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.25) With reference to the India-U.A.E. relations, how many of the following statements are correct?

- 1. The UAE is a part of the India-Middle East-Europe Economic Corridor (IMEEC) infrastructure project that was signed during the G-20 summit in Delhi.
- 2. The UAE is the only Gulf nation with strategic oil reserves stored in India.
- 3. Tourism and travel are the largest contributors to the economic relationship between India and the U.A.E.
- 4. The RuPay card, a key component of India's Digital Public Infrastructure (DPI), is accepted in the UAE.

Select the correct answer using the codes given below:

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

Q.26) With reference to Cairns Group, consider the following statements:

- 1. It is a coalition of agricultural exporting countries that advocate for agricultural trade liberalization.
- 2. It advocates for reduced trade barriers and subsidies in agriculture.

Which of the statement(s) given above is/are correct?

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

Economy

Q.27) Consider the following statements:

1. The meetings of the Monetary Policy Committee (MPC) are held at least four times a year.
2. An expansionary monetary policy implemented by the MPC would include raising the marginal standing facility (MSF) rate.

Which of the statement(s) given above is/are correct?

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

Q.28) Consider the following statements:

Statement-I: Manufacturing sector employment in India is low at 11.7% of total employment.

Statement-II: India faces a shortage of unskilled labor necessary for manufacturing industries.

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

Q.29) Consider the following statements:

Statement-I: Retail rice prices in India have increased over the past year.

Statement-II: In recent years, there has been an increase in the costs associated with the transportation and storage of rice.

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

Q.30) In which of the following ways do payment aggregators differ from payment gateways?

- a) Payment aggregators focus on physical point-of-sale transactions, while payment gateways handle online payments.
- b) Payment gateways facilitate transactions between customers and merchants, while payment aggregators consolidate transactions for multiple merchants.
- c) Payment aggregators offer a wide range of payment methods, while payment gateways specialize in specific payment options.
- d) Payment gateways provide credit services, while payment aggregators offer debit solutions.

Q.31) "DigiReady Certification Portal" was seen in the news recently, is associated with:

- a) Certifying government schools for their integration of digital technology.
- b) Giving training to the government and private sector employees on advanced technologies.
- c) Assessing and certifying digital readiness of Micro, Small, and Medium Enterprises (MSME) entities.
- d) Promoting digital readiness and inclusion in communities by Non-profit organizations.

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Q.32) With reference to fiscal federalism, consider the following statements:

1. It is based on the principle that all levels of government have equal fiscal powers.
2. It emphasizes the importance of fiscal discipline and accountability at all levels of government.
3. Intergovernmental transfers play a crucial role in fiscal federalism.

How many of the statements given above are correct?

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

Q.33) Consider the following statements:

1. Fintech refers to businesses that use technology to enhance or automate financial services and processes.
2. India has the third largest Fintech ecosystem in the world.
3. Fintech completely eliminates the need for human interaction in finance.

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.34) Consider the following statements:

1. Retail inflation is also known as Consumer Price Index (CPI) inflation.
2. Retail inflation measures the rise in prices of raw materials for industries.
3. A high retail inflation would lead to decreased cost of living for the consumers.
4. A rising retail inflation would decrease the value of money over time.

How many of the statements given above are correct?

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

Q.35) Which one of the following provides the most accurate description of 'Asset Tokenization'?

- a) Converting physical assets into shares of a company
- b) Representing ownership of real or financial assets using digital tokens on a blockchain
- c) Issuing new cryptocurrencies backed by traditional assets
- d) Creating a central database of all asset ownership records

Q.36) A developed country provides subsidies to its corn farmers, resulting in artificially low prices for corn products in the international market. How would these subsidies likely be classified under WTO rules?

- a) Blue Box subsidies
- b) Green Box subsidies
- c) Amber Box subsidies
- d) Red Box subsidies

Environment

Q.37) With reference to The Energy and Resources Institute (TERI), consider the following statements:

1. It is a leading think tank dedicated to conducting research for sustainable development of India and the Global South.
2. It is headquartered in New Delhi.
3. Development and deployment of nuclear power technologies are one of the focus areas of TERI.

How many of the statements given above are correct?

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

Q.38) Consider the following:

1. They are an important bioindicators of soil ecosystem health.
2. They fix nitrogen from the atmosphere.
3. They break down organic matter, releasing nutrients for plants.

In the context of environmental significance, how many of the above listed factors highlight the importance of 'Nematodes'?

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

Q.39) 'Dachigam National Park' best known for protecting, which one of the following species?

- a) Himalayan brown bear
- b) Musk deer
- c) Hangul Deer
- d) Asiatic Lion

Q.40) With reference to the Himalayan Black Bear, consider the following statements:

1. It is known for its role as a primary seed disperser which helps in maintaining ecosystem balance.
2. Tropical rainforest is the primary habitat of the Himalayan Black Bear.
3. They are categorized 'Vulnerable' in the IUCN Red List of Threatened Species.

How many of the statements given above are correct?

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

Q.41) The Paris Agreement recognizes the urgency of staying below 1.5°C to minimize climate change impacts. For which one of the following factors, is the 1.5°C threshold considered critical?

- a) It represents the point beyond which catastrophic climate change is inevitable.
- b) It is the most ambitious but achievable target for mitigating climate impacts.
- c) It aligns with the natural warming cycles of the Earth.
- d) It was chosen based on political compromises between nations.

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Q.42) Consider the following statements:

1. Brumation is a winter dormancy state in warm-blooded mammals.
2. Estivation, or aestivation, is summer dormancy prompted by high temperatures and dry conditions.
3. Brumation is a term commonly associated with birds.

How many of the statements given above are correct?

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

Q.43) Which one of the following statements is NOT correct regarding "Bor Tiger Reserve"?

- a) It is located in Maharashtra.
- b) It has Dry Deciduous Forest.
- c) It is the largest tiger reserve in India by area.
- d) The Bor River flows through the Reserve.

Q.44) Consider the following pairs:

Turtle-----IUCN Status

1. Olive Ridley Turtle-----Vulnerable
2. Leatherback Turtle-----Endangered
3. Loggerhead Turtle-----Vulnerable
4. Hawksbill Turtle-----Near Threatened

How many of the above pairs are correctly matched?

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

Q.45) With reference to the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention), consider the following statements:

1. It is the only global and UN-based intergovernmental organisation established exclusively for the conservation and management of terrestrial, aquatic and avian migratory species throughout their range.
2. The convention imposes trade sanctions on countries that violate species protection.
3. Its objective is to eliminate trade in wildlife and wildlife products.

How many of the statements given above are correct?

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

Q.46) Cuscuta dodder is a plant categorized as:

- a) Epiphyte
- b) Parasite
- c) Autotroph
- d) Saprophyte

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Q.47) Consider the following statements:

1. Vedanthangal Bird Sanctuary is the oldest water bird sanctuary in the India.
2. Vedanthangal Bird Sanctuary is known for hosting migratory birds during summer seasons.

Which of the statements(s) given above is/are correct?

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

Science & Technology

Q.48) Who of the following personalities is associated with the development of the theory of 'Photon Gas'?

- a) Werner Heisenberg
- b) Vikram Sarabhai
- c) Enrico Fermi
- d) Satyendra Nath Bose

Q.49) Consider the following:

1. Energy Storage
2. Electromagnetic Shielding
3. Water Purification

In which of the above-mentioned areas does MXene, a class of two-dimensional (2D) ceramic nanomaterials, find application?

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

Q.50) With reference to the High-altitude pseudo satellite vehicle (HAPS), consider the following statements:

1. Solar panels and energy storage systems enables HAPS to stay airborne for extended periods.
2. It can help in monitoring environmental changes and natural disasters.
3. The primary advantage of HAPS compared to traditional satellites is its ability to operate beyond geostationary orbit.

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

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Q.51) Consider the following statements with respect to the Defence Acquisition Council:

1. It is the highest decision-making body for military procurement.
2. It is responsible for negotiating international defense contracts.

Which of the statement(s) given above is/are correct?

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

Q.52) Which one of the following statements is correct with reference to the Open Radio Access Network (ORAN)?

- a) It separates the control plane from the data plane in network devices, allowing for centralized control and programmability of network infrastructure through software-based controllers.
- b) It is an approach to building cellular network infrastructure that allows for greater flexibility and innovation compared to traditional, vendor-locked systems.
- c) It centralizes and virtualizes radio access network functions, enabling them to be hosted in cloud environments for increased scalability and flexibility.
- d) It refers to software whose source code is freely available for use, modification, and distribution by anyone.

Q.53) Consider the following statements:

1. Pulsar stars emit light and radiation due to nuclear fusion reactions occurring in their cores.
2. Supernova remnants are the bright, expanding clouds of gas and dust formed when massive stars explode.
3. Five-hundred-meter Aperture Spherical radio Telescope (FAST) is the world's biggest single-dish radio telescope.

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.54) Consider the following statements:

1. Halogens are highly reactive and don't exist freely in nature.
2. In compounds, fluorine is the most prevalent halogen found in Earth's crust.

Which of the statement(s) 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.55) Consider the following statements:

1. Formaldehyde is a colorless, strong-smelling gas used in various industries for manufacturing building materials and household products.
2. Frozen smoke, also known as aerogel, is primarily composed of carbon dioxide and water vapor.

Which of the statement(s) given above is/are correct?

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

Q.56) Consider the following statements with respect to NASA-ISRO Synthetic Aperture Radar (NISAR) satellite:

1. It is a dual frequency satellite.
2. It will offer detailed observations of Earth's surface, tracking changes in ice sheets, land deformation, and ecosystems.
3. It has been developed for Low Earth Orbit (LEO) observation.

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.57) Consider the following statements with respect to the Alaskapox disease:

1. They are zoonotic viruses that can infect various mammals, including humans.
2. It is a rhinovirus.
3. It is a double-stranded DNA virus.

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.58) With reference to the PACE (Plankton, Aerosol, Cloud, ocean Ecosystem) satellite, consider the following statements:

1. Its objective is to study the composition of planetary atmospheres.
2. It is placed in a sun-synchronous orbit.
3. It will help in understanding the influence of particles in the air, like dust and smoke, on cloud formation, warming and cooling of the planet.

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

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Q.59) Consider the following statements:

1. An ultracold atom is an atom with a temperature near absolute zero.
2. The Future Circular Collider (FCC) is a particle accelerator currently under design, intended to accommodate the next generation of particle colliders.

Which of the statement(s) given above is/are correct?

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

Q.60) Consider the following statements regarding the Bubonic Plague:

1. It is viral infection caused by Epstein-Barr virus (EBV).
2. It spreads between animals and humans through flea bites, direct contact with infected tissues, and inhaling infected respiratory droplets.
3. There is no cure available for the treatment of the Bubonic Plague.

Which of the statement(s) given above is/are correct?

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

Answer Key

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

Answers & Explanations

Art & Culture

1. Correct Answer is (A)

- Statement 1 is correct. The Ajanta Caves are primarily Buddhist in nature. The paintings and sculptures depict various scenes from the life of the Buddha, Jataka tales (stories of his previous lives), and other Buddhist iconography.
- Statement 2 is incorrect. The paintings in the Ajanta Caves are executed in the fresco-secco (also known as dry fresco) technique. The Ellora Caves are known more for their intricate rock-cut sculptures and architectural details.

Source: [Forum IAS](#)

2. Correct Answer is (A)

- Statement 1 is correct. Kokborok, also known as Tripuri or Tiprakok, is one of the official languages of Tripura. It was recognized as an official language in 1979, and it holds significant cultural importance in the region. Another official language of Tripura is Bengali.
- Statement 2 is incorrect. Kokborok language is a part of the Tibeto-Burman language group within the larger Sino-Tibetan language family.

Source: [Forum IAS](#)

3. Correct Answer is (A)

- Statements 1 and 2 are incorrect. The Bharat Ratna award is not India's highest literary award. It is India's highest civilian award. Bharat Ratna awards are usually announced around the time of India's Republic Day, not Independence Day.
- Statement 3 is correct. The recommendations for the Bharat Ratna award are made by the Prime Minister to the President of India. There is no formal process for nominations, and the Prime Minister has the discretion to propose the names of potential recipients to the President.

Source: [Forum IAS](#)

4. Correct Answer is (A)

- Statement 1 is correct. The word "Dhokra" is believed to be derived from the Dhokra Damar tribes, the traditional metal smiths of Central India. The origins can be traced back to the tribal communities residing in the regions of Chhattisgarh, Jharkhand, West Bengal, and Odisha. The beauty of Dhokra Shilpkala lies in its rustic charm and the organic nature of its designs. Artisans draw inspiration from nature, mythology, and everyday life. They incorporate motifs such as animals, birds, deities, and tribal symbols into their creations. Each piece displays a sense of timeless elegance and cultural richness.
- Statement 2 is incorrect. The sculptures are created using the lost wax casting technique, which involves a process of metal casting using a clay core, beeswax, and brass or bronze metal.

Source: [Forum IAS](#)

5. Correct Answer is (D)

- Statements 1 and 3 are incorrect. The temple is built in traditional Nagara style of architecture. The temple has been built by using fly ash instead of cement to reduce its carbon footprint. Nano tiles have been installed with designs to keep visitors comfortable even in extreme heat. It has not used any ferrous material.

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- Statements 2 and 4 are correct. The temple complex is surrounded by two prominent domes: the 'Dome of Harmony' and the 'Dome of Peace,' symbolizing unity and coexistence among different religions and cultures. The temple houses seven shrines, each dedicated to different deities hailing from the North, East, West and South parts of India.

Source: [Forum IAS](#)

Geography

6. Correct Answer is (B)

- Gomti River is an alluvial river that originates from the Gomat Taal, or Fulhaar Jheel from Pilibhit in Uttar Pradesh. It joins river Ganga near Varanasi. The total drainage area of the river is 30,437 sq. km. Kathina, Bhainsi, Sarayan, Gon, Reth, Sai, Pili, and Kalyani are its tributaries. There are various cities that are situated on the banks of the river Gomti, such as Sultanpur, Lucknow, Jaunpur, and Lakhimpur Kheri. It is a perennial river. It has a sluggish flow throughout the year, except during the monsoon season.

Source: [Forum IAS](#)

7. Correct Answer is (A)

- The Aral Sea, a once-large saltwater lake of Central Asia, shared the boundary between Kazakhstan to the north and Uzbekistan to the south. The sea was once the fourth-largest body of water in the world, but it has been reduced to a fraction of its original area. It encompasses drainage from Uzbekistan and parts of Kazakhstan, Tajikistan, Afghanistan, Turkmenistan, Iran, and Kyrgyzstan.

Source: [Forum IAS](#)

8. Correct Answer is (A)

- Statement 1 is correct. El Niño is a weather phenomenon characterized by a shift in ocean currents and temperatures in the Pacific Ocean. Specifically, it involves the warming of the ocean surface in the tropical Pacific, which leads to changes in atmospheric circulation and weather patterns across the globe.
- Statements 2 and 3 are incorrect. El Niño typically leads to warmer temperatures in India, particularly during the monsoon season, due to the changes in atmospheric circulation patterns. These warmer temperatures, coupled with below-normal rainfall, can result in drier conditions in some parts of the country. El Niño generally has a negative impact on crop yields in India. The warmer temperatures and lower rainfall associated with El Niño events can lead to water scarcity, reduced soil moisture, and increased stress on crops. This combination of factors usually results in lower agricultural productivity.

Source: [Forum IAS](#)

Polity

9. Correct Answer is (A)

- Statement 1 is correct. QCI was established in 1997 jointly by the Department for Promotion of Industry & Internal Trade (DPIIT), the Ministry of Commerce & Industry, and the Indian industry. It is registered as a non-profit organization under the Societies Registration Act XXI of 1860. It is governed by a Council of 38 members with equal representations of government, industry and consumers. The Chairman of QCI is appointed by the Prime Minister on the recommendation of the industry to the government.
- Statement 2 is incorrect. The QCI does not audit and penalize businesses for quality violations. Instead, it focuses on quality facilitation and certification. It works with accreditation bodies like

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NABET, which can assess organizations against specific quality standards, but penalties like fines are not directly imposed by QCI.

Source: [Forum IAS](#)

10. Correct Answer is (C)

- Nazool land is government-owned property. However, usually it is not directly managed as state property. It is often leased to entities for fixed periods, ranging from 15 to 99 years. In case of lease expiry, one can approach the authority to renew the lease by submitting a written application to the revenue department of the local development authority. The government can either renew or cancel leases. The Nazool Lands (Transfer) Rules, 1956, is the law mostly used for adjudicating Nazool land. The government typically uses Nazool land for public purposes such as constructing schools, hospitals, Gram Panchayat buildings, etc.

Source: [Forum IAS](#)

11. Correct Answer is (A)

- Statement 1 is correct. The National Judicial Academy is fully funded by the Government of India. Established in 1993 under the Societies Registration Act, 1860, the NJA is an independent society that receives its funding from the government to carry out its mission of providing judicial education and training.
- Statements 2 and 3 are incorrect. The Chief Justice of India (CJI) serves as the Chairman of the General Body, Governing Council, Executive Committee, and Academic Council of NJA. The primary focus of the NJA is on providing training programs for judges, court personnel, law enforcement officials, and other stakeholders in the justice system. It does not provide financial assistance to underprivileged individuals seeking legal aid.

Source: [Forum IAS](#)

12. Correct Answer is (B)

- Statements 1 and 3 are correct. The NCrF allows students to earn credits for various learning experiences, including practical work, internships, and work-based learning, promoting a holistic and flexible approach to education. The NCrF enables the creditization of every learning hour, provided it is subject to appropriate assessment. This approach emphasizes the recognition of diverse learning experiences and encourages lifelong learning.
- Statements 2 and 4 are incorrect. Credits earned under the NCrF do not have a fixed monetary value for financial aid purposes. Instead, they represent the academic value or weightage of a course or learning experience. The NCrF does not enforce a rigid separation between different areas of learning. Instead, it promotes interdisciplinary learning and encourages the integration of various learning experiences, such as arts, sciences, vocational, academic, curricular, and extra-curricular activities, for credit assignment and credit levels.

Source: [Forum IAS](#)

13. Correct Answer is (C)

- The primary purpose of community radio stations in India is to cater to a specific local community and address their needs and interests. These stations serve a small area, providing utility services reaching to the community which uses the microphone to reflect and enrich its life and artistic expression. Community radio stations are expected to produce at least 50% of their programmes locally, as far as possible in local languages or dialect. India's first community radio station (CRS) opened at Anna University's campus in 2004.

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Source: [Forum IAS](#)

14. Correct Answer is (B)

- Under Article 87 of the Indian Constitution, the President's special address at the commencement of the first session after a general election and the first session of each year signifies the formal start of the legislative process for that period. The President's address outlines the government's policy priorities and plans for the upcoming legislative session, setting the stage for discussions, debates, and the introduction of new legislation.

Source: [Forum IAS](#)

15. Correct Answer is (C)

- Statements 1 and 3 are correct. NCDRC is a quasi-judicial commission in India which was set up in 1988 under the Consumer Protection Act of 1986. The Commission is headed by a sitting or retired Judge of the Supreme Court of India or a sitting or retired Chief Justice of the High Court. It has the power to hear appeals against the decisions of both State and District Consumer Dispute Redressal Forums. If a consumer is not satisfied with the decision of the lower forums, they can file an appeal with the NCDRC within a specified period. The Commission's decisions are considered final and can only be challenged in the Supreme Court of India.
- Statement 2 is incorrect. While registered consumer organizations can file complaints with the NCDRC, individual consumers can also directly approach the commission to file complaints against unfair trade practices and other consumer grievances.

Source: [Forum IAS](#)

Acts & Policies

16. Correct Answer is (B)

- The PM-MKSSY is a central sector sub-scheme under the Pradhan Mantri Matsya Sampada for formalisation of the fisheries sector. The scheme focuses on formalizing the sector through digital registration, promoting the adoption of improved aquaculture practices, and enhancing the socio-economic conditions of fishers and fish farmers. Its major components are: formalisation of fisheries sector through digital registration, facilitating adoption of aquaculture insurance, adoption and expansion of fish and fishery product safety and quality assurance systems, project management, monitoring and reporting.

Source: [Forum IAS](#)

17. Correct Answer is (B)

- The Kilkari Programme is a mobile health initiative that aims to improve maternal health and newborn care through community mobilization. The program uses prerecorded, weekly, stage-based calls to provide information about reproductive, maternal, neonatal, and child health to families' mobile phones. It aims to empower families and communities to make informed decisions about maternal and newborn care, ultimately improving health outcomes. The scheme is centrally hosted by the Ministry of Health and Family Welfare (MoHFW). The programme is integrated with the centralized Reproductive Child Health (RCH) portal of MoHFW.

Source: [Forum IAS](#)

18. Correct Answer is (B)

- The Swadesh Darshan Scheme was launched by the Ministry of Tourism in India with the primary objective of developing theme-based tourist circuits within the country. The scheme aims to promote domestic tourism by creating tourist circuits around specific themes such as culture, heritage,

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religion, wildlife, and nature. It is 100% centrally funded scheme. The Ministry of Tourism provides financial assistance to State governments, Union Territory Administrations, or Central Agencies for development of tourism infrastructure in the country.

Source: [Forum IAS](#)

19. Correct Answer is (B)

- The function of the Sandbox for Agricultural and Rural Security, Technology and Insurance (SARTHI) portal is to facilitate the delivery of insurance products and services to farmers and the rural population in India. It aims to simplify the insurance process for farmers by providing a digitized insurance platform, offering a single-window platform for viewing, purchasing, and availing insurance products, with digital payment options and streamlined premium collection. The portal will introduce a range of insurance products gradually, starting with personal accident and hospital cash policies, followed by health, shop, home, tractor, two-wheeler, livestock, and non-PMFBY insurance products. The Krishi Rakshak Portal and Helpline will act as a facilitator between insured farmers, insurance companies, bankers, Common Service Centres (CSCs), and state governments, enabling farmers to register complaints for redressal.

Source: [Forum IAS](#)

20. Correct Answer is (B)

- Statement 1 is incorrect. The government will start a program called Middle-Class Housing Scheme, to assist middle-class individuals living in rented houses, slums, chawls, and unauthorized colonies to purchase or construct their own homes. While it is part of the 'housing for all' policy, it's not an extension of Pradhan Mantri Awas Yojana (PMAY). It's a new scheme where the government will define income levels, location, and accommodation types to identify beneficiaries.
- Statement 2 is correct. The primary goal of the Middle-Class Housing Scheme is to provide affordable housing solutions to middle-income families.

Source: [Forum IAS](#)

21. Correct Answer is (A)

- The SWATI (Science for Women: A Technology & Innovation) portal is an initiative aimed at recognizing and celebrating the contributions of Indian women in the fields of Science, Technology, Engineering, Mathematics, and Medicine (STEMM). By providing a platform to showcase their accomplishments, the SWATI portal promotes gender equality and encourages more women to pursue careers in these male-dominated fields.

Source: [Forum IAS](#)

22. Correct Answer is (B)

- Statement 1 is incorrect. The PLI scheme doesn't guarantee profits for participating companies. Instead, it provides financial incentives based on the company's performance, such as achieving predetermined production and investment targets. The scheme provides incentives to eligible companies based on incremental sales (over base year) of goods manufactured in India and covered under target segments, for a period of five to six years.
- Statements 2 and 3 are correct. The PLI scheme aims to encourage local manufacturing and reduce reliance on imports, thus promoting import substitution and self-reliance. The PLI scheme is open to both domestic and foreign companies that meet the eligibility criteria. This is intended to attract foreign investment and expertise to India's manufacturing sector. It incentivizes both foreign and domestic companies to establish or expand their manufacturing operations in India.

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Source: [Forum IAS](#)

Index & Reports

23. Correct Answer is (C)

- The "Prabhaav" report, released by the Small Industries Development Bank of India (SIDBI), focuses on assessing the impact and effectiveness of the Fund of Funds for Startups (FFS). The FFS was established under the Startup India Action Plan to provide capital to venture capital and alternative investment funds, which in turn invest in early-stage startups. The report evaluates the performance of the FFS, its contribution to the startup ecosystem, and its role in promoting innovation and entrepreneurship in India.

Source: [Forum IAS](#)

International Relations/Organizations

24. Correct Answer is (C)

- Statements 1 and 3 are correct. India has increased its investments in Africa to boost Africa's economic growth and reduce the poverty levels in the global south. For ex- EXIM Bank's Focus Africa Programme, India-Africa Partnership project, etc. India and African nations have a growing partnership in security, particularly in issues impacting the Indian Ocean region. This includes collaborations on maritime security, anti-piracy initiatives, and capacity building for Humanitarian Assistance and Disaster Relief (HADR).
- Statement 2 is incorrect. India's approach to Africa emphasizes non-interference in internal affairs and peaceful conflict resolution through dialogue and diplomacy. Military intervention is not a central component of India's strategy.

Source: [Forum IAS](#)

25. Correct Answer is (C)

- Statements 1, 2 and 4 are correct. The UAE is part of the India-Middle East-Europe Economic Corridor (IMEEC) infrastructure project, which was signed during the G-20 summit in Delhi, aiming to enhance trade and connectivity between the regions. This is aimed to counter China's Belt and road initiative in the region. The UAE is only nation from the gulf region which has strategic oil reserves stored in India. An agreement was signed by Indian Strategic Petroleum Reserves Ltd (ISPRL) and the Abu Dhabi National Oil Company to invest in the strategic crude oil storage facility in Mangaluru. The UAE is India's third-largest trading partner and India's second-largest export destination. The UAE is also the fourth-largest overall investor in India. The RuPay card, a key component of India's Digital Public Infrastructure (DPI), is accepted in the UAE. From July 2023, the rupee was also accepted for transactions at Dubai's airports.
- Statement 3 is incorrect. Trade in oil and gas from the U.A.E. to India is the largest contributor to the economic relationship between India and the U.A.E. While tourism is a significant aspect of the relationship, the largest contributors are trade and investment.

Source: [Forum IAS](#)

26. Correct Answer is (C)

- Statements 1 and 2 are correct. Cairns Group is an international coalition of 19 agricultural exporting countries, including Australia, Brazil, Canada, and New Zealand, among others. It was established in 1986 and has since been an influential voice in international trade negotiations, particularly in the area of agriculture. The Cairns Group advocates for agricultural trade liberalization, seeking to reduce trade barriers and promote a more open and fair global market for agricultural products. The

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group advocates for reduced trade barriers and subsidies in agriculture, and has had some success in reducing tariff barriers and eliminating subsidies.

Source: [Forum IAS](#)

Economy

27. Correct Answer is (A)

- Statement 1 is correct. The Monetary Policy Committee (MPC) is a committee of the Reserve Bank of India (RBI) that is responsible for fixing the benchmark interest rate in India. The meetings of the MPC are held at least four times a year, as per the RBI's guidelines. It is headed by the Governor of the RBI.
- Statement 2 is incorrect. The Marginal Standing Facility rate is the interest rate at which banks can borrow overnight funds from the central bank when they face short-term liquidity challenges. Expansionary monetary policy aims to stimulate economic growth by making it cheaper for businesses and individuals to borrow money. To achieve this, the MPC would lower interest rates, including the MSF rate.

Source: [Forum IAS](#)

28. Correct Answer is (C)

- Statement I is correct. Manufacturing sector employment in India is 11.7% of total employment. This is lower than in developing countries like Vietnam (21.4%) and China (28.7%).
- Statement II is incorrect. India generally has a large pool of unskilled labor. The key challenge the manufacturing sector faces is a shortage of skilled labor and more focus on services sector.

Source: [Forum IAS](#)

29. Correct Answer is (A)

- Statement I is correct. Over the last year, retail rice prices increased by 14.51%. Prices of some rice varieties have risen by more than ₹10 per kg.
- Statement II: Price rise of rice has been due to the various factors such as: Increased MSP, Rising Transport and Storage Expenses, Decreased Production in Southern States, Shortfall in Retail Market Supply
- Hence, Statement II explains the reason behind the Statement I.

Source: [Forum IAS](#)

30. Correct Answer is (B)

- **Payment Gateway:** A payment gateway is the technology that securely passes a customer's payment information (credit card, debit card, etc.) to the payment processor and communicates the approval or decline of the transaction back to the merchant. Payment gateways primarily serve as intermediaries between customers and merchants for individual transactions, handling the secure transmission of payment data during online purchases.
- **Payment Aggregator:** A payment aggregator simplifies the process for businesses to accept online payments. They gather multiple merchant accounts under one umbrella. Businesses don't need to get individual merchant accounts and integrate separate payment gateways. Act as a third-party facilitator that manages and processes merchants' transactions under one roof. Offer a quick onboarding process but with more strict parameters and less processing freedom. They typically provide a range of payment options to customers, including credit and debit cards, bank transfers, and e-wallets.

Source: [Forum IAS](#)

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31. Correct Answer is (C)

- The Quality Council of India (QCI) and ONDC have recently announced the launch of the DigiReady Certification (DRC) portal. It aims to assess and certify digital readiness of Micro, Small, and Medium Enterprises (MSME) entities. This portal is open for self-assessment to all Micro, Small and Medium Enterprises (MSMEs) and small retailers. It will empower MSMEs and make e-commerce more inclusive and accessible. It will amplify MSMEs potential to thrive in the digital economy. It will expand their digital capabilities and business potential.

Source: [Forum IAS](#)

32. Correct Answer is (B)

- Statement 1 is incorrect. Fiscal federalism does not assume equal fiscal powers for all levels of government. Instead, it involves the division of fiscal responsibilities and powers between different tiers of government (central, state, and local) to ensure efficient public service delivery and resource allocation.
- Statements 2 and 3 are correct. Fiscal federalism emphasizes the importance of fiscal discipline and accountability at all levels of government. This means that governments should strive for responsible spending, revenue collection, and debt management while also being transparent and answerable to their constituents. Intergovernmental transfers are an essential aspect of fiscal federalism. These transfers involve the redistribution of resources from higher levels of government (e.g., central) to lower levels (e.g., state or local) to address regional disparities, promote equity, and ensure the provision of public goods and services.

Source: [Forum IAS](#)

33. Correct Answer is (A)

- Statements 1 and 2 are correct. Fintech, short for "financial technology," refers to businesses or technologies that use innovative solutions to enhance, streamline, or automate financial services and processes. Fintech encompasses a wide range of applications, such as digital payments, mobile banking, blockchain technology, and artificial intelligence in finance. India has the 3rd largest FinTech ecosystem. 17 Indian Fintech companies have gained 'Unicorn Status' as on Dec 2021.
- Statement 3 is incorrect. Although fintech aims to improve efficiency and reduce manual processes in finance, it does not entirely eliminate the need for human interaction. While some tasks can be automated, many financial activities still require human judgment, expertise, and decision-making.

Source: [Forum IAS](#)

34. Correct Answer is (B)

- Statements 1 and 4 are correct. Retail inflation refers to the Consumer Price Index (CPI) inflation, which measures the average change in prices of goods and services consumed by households over time. Rising retail inflation decreases the value of money over time. As prices increase, the same amount of money can buy fewer goods and services, reducing its real value and purchasing power.
- Statements 2 and 3 are incorrect. Retail inflation doesn't measure the rise in prices of raw materials for industries. It focuses on the prices of goods and services consumed by individuals and households. High retail inflation means an increase in the prices of consumer goods and services, leading to a higher cost of living for consumers. As prices rise, people's purchasing power decreases, making it more expensive to maintain the same standard of living.

Source: [Forum IAS](#)

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35. Correct Answer is (B)

- Asset tokenization is the process of converting the value of real-world or financial assets into digital tokens that can be stored and traded on a blockchain platform. These tokens represent ownership or an interest in the underlying asset, such as real estate, artwork, commodities, or financial instruments. Tokenization enables fractional ownership, increased liquidity, and greater accessibility to a broader range of investors while providing transparency and security through the use of blockchain technology. Tokens can act like digital certificates of ownership that can represent almost any object of value such as physical, digital, fungible, and non-fungible assets. It allows a smaller investor to invest in riskier assets with relatively low capital. It allows for the open tracking and auditing of all records due to the fundamentally public nature of many blockchains.

Source: [Forum IAS](#)

36. Correct Answer is (C)

- The subsidies provided by a developed country to its corn farmers, resulting in artificially low prices for corn products in the international market, would likely be classified as Amber Box subsidies. Amber box subsidies include subsidies that are directly linked to production, such as price supports and input subsidies. In this case, the developed country is providing subsidies to its corn farmers, which results in artificially low prices for corn products in the international market. This practice is seen as distorting international trade because it gives the country's corn farmers an unfair advantage over farmers in other countries who may not receive similar subsidies.

Source: [Forum IAS](#)

Environment

37. Correct Answer is (B)

- Statements 1 and 2 are correct. The Energy and Resources Institute (TERI) is a leading think tank focused on conducting research and providing solutions for sustainable development, with a particular emphasis on India and the Global South. It is headquartered in New Delhi and has regional offices and research centers across the country.
- Statement 3 is incorrect. TERI focuses on promoting clean energy, water management, pollution management, sustainable agriculture, and climate resilience. TERI's research areas include: Biotechnology and bioresources, Earth science and climate change, Environmental and industrial biotechnology, Industrial energy efficiency. However, the development and deployment of nuclear power technologies is not a primary focus area for the organization. Instead, TERI concentrates on renewable energy sources, energy efficiency, and clean technology solutions as part of its efforts to promote sustainable development and address environmental challenges.

Source: [Forum IAS](#)

38. Correct Answer is (B)

- Nematodes are roundworms and their size can vary from a tiny 0.2 millimetre to a few metres. They are among the most abundant animals on Earth. They occur as parasites in animals and plants or as free-living forms in soil, fresh water, marine environments. These nematodes play a crucial role in the environment as they are responsible for production of about 19% of ammonia of the soil. They are also important bioindicators of soil ecosystem health. They break down organic matter, releasing nutrients for plants. They feed on bacteria, fungi, or other microscopic creatures. Thus, they are a major component of soil and sediment ecosystems. However, Nematodes themselves do not directly fix nitrogen from the atmosphere.

Source: [Forum IAS](#)

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39. Correct Answer is (C)

- Dachigam National Park is specifically known for its conservation efforts to protect the Hangul Deer, also known as the Kashmir Stag. Dachigam National Park is located 22 kms from Srinagar in Jammu and Kashmir at altitudes ranging from 5500 feet to 14,000 feet. Vegetation type includes Himalayan moist temperate forest: sub-alpine forest and alpine forest type.

Source: [Forum IAS](#)

40. Correct Answer is (B)

- Statements 1 and 3 are correct. The Himalayan Black Bear plays a crucial role as a primary seed disperser, contributing to the maintenance of ecosystem balance by promoting plant diversity and growth. The Himalayan Black Bear is categorized as Vulnerable in the IUCN Red List of Threatened Species.
- Statement 2 is incorrect. The primary habitat of the Himalayan Black Bear is not the tropical rainforest, but rather temperate and subalpine forests, as well as high-altitude meadows in the Himalayan region.

Source: [Forum IAS](#)

41. Correct Answer is (B)

- This threshold was chosen based on scientific evidence indicating that exceeding 1.5°C of global warming could result in more severe and widespread consequences, such as extreme weather events, sea-level rise, and ecosystem disruptions. Although achieving the 1.5°C target is challenging, it represents an ambitious yet feasible goal that aligns with the global commitment to reduce greenhouse gas emissions and pursue sustainable development.

Source: [Forum IAS](#)

42. Correct Answer is (A)

- Statements 1 and 3 are incorrect. Brumation is a dormancy state in **cold-blooded animals**, such as reptiles and amphibians, particularly in temperate regions. During brumation, these animals become inactive, and their metabolic processes slow down to conserve energy during **colder months** when food is scarce. Whereas, **hibernation** is a winter dormancy state in **warm-blooded mammals**. Brumation refers to the dormancy state of cold-blooded animals like reptiles and amphibians during cold weather.
- Statement 2 is correct. Estivation, also known as aestivation, is a state of dormancy that some animals enter during the hot, dry summer months. This period of inactivity helps them conserve energy and water, as food and water sources may be scarce. Animals that undergo estivation include certain insects, fish, amphibians, and reptiles.

Source: [Forum IAS](#)

43. Correct Answer is (C)

- Bor Tiger Reserve is a wildlife sanctuary which was declared a tiger reserve in July 2014. It is located in the Wardha District of Maharashtra. The reserve covers an area of 138.12 sq.km, which includes the drainage basin of the Bor Dam. It has Dry Deciduous Forest. Teak, tendu, bamboo, tarot, and gokhru are some of the abundant species. Apart from tigers, the reserve is home to several other mammals like leopards, sloth bears, sambar deer, Indian bison (gaur), chital, wild boars, and more. It is the smallest tiger reserve in India by area. The Bor Tiger Reserve is traversed by the Bor River, which plays a significant role in the ecology and biodiversity of the reserve. The Bor Tiger Reserve is strategically located between the Pench Tiger Reserve and the Tadoba-Andhari Tiger Reserve in the

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Nagpur and Chandrapur districts of Maharashtra. This region acts as a crucial tiger corridor connecting these two tiger reserves.

Source: [Forum IAS](#)

44. Correct Answer is (B)

- 1 and 3 are correctly matched.
- **Olive Ridley Turtle:** The Olive ridley turtles are the smallest and most abundant of all sea turtles found in the world. They are best known for their unique mass nesting called Arribada. They are found in warm waters of the Pacific, Atlantic and Indian oceans. IUCN status- Vulnerable, Indian Wildlife (Protection) Act- Schedule I.
- **Leatherback Turtle:** It is the largest of the seven sea turtle species. It is found in all oceans except the Arctic and the Antarctic. IUCN Status- Vulnerable, Indian Wildlife (Protection) Act- Schedule I.
- **Loggerhead turtle:** It is found in the Atlantic, Pacific, and Indian Oceans, as well as the Mediterranean Sea. IUCN Status- Vulnerable, Indian Wildlife (Protection) Act- Schedule I.
- **Hawksbill turtle-**They have a wide range, found predominantly in tropical reefs of the Indian, Pacific, and Atlantic Oceans. They are primarily found in tropical coral reefs. IUCN status- Critically Endangered, Indian Wildlife (Protection) Act- Schedule I.

Source: [Forum IAS](#)

45. Correct Answer is (A)

- Statement 1 is correct. The Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) is the only global and United Nations-based intergovernmental organization that focuses exclusively on the conservation and management of migratory species, including terrestrial, aquatic, and avian species, throughout their entire range. This is an environmental treaty under the aegis of the United Nations Environment Programme. The Conference of Parties (COP) is the decision-making organ of this convention.
- Statements 2 and 3 are incorrect. The Bonn Convention does not impose trade sanctions on countries that violate species protection. Its main focus is on promoting cooperation among countries to ensure the conservation and sustainable use of migratory species and their habitats. The primary objective of the Bonn Convention is not to eliminate trade in wildlife and wildlife products but to conserve migratory species throughout their range.

Source: [Forum IAS](#)

46. Correct Answer is (B)

- Cuscuta dodder, commonly known as dodder or amarbel, is a parasitic plant that infests many crops, ornamentals, native plants, and weeds. It belongs to the genus Cuscuta and is classified as a parasitic plant that lacks chlorophyll and depends on host plants for nutrition. Dodder is considered a parasitic plant due to its dependency on other plants for survival and growth. It is an invasive weed native to North America.

Source: [Forum IAS](#)

47. Correct Answer is (A)

- Statement 1 is correct. Vedanthangal Bird Sanctuary, established in 1936, is considered the oldest water bird sanctuary in India. It is located in the Madurantakam taluk of Chengalpattu District in Tamil Nadu and serves as a vital habitat for numerous migratory and resident bird species.
- Statement 2 is incorrect. Vedanthangal Bird Sanctuary is known for hosting migratory birds during the winter season, not the summer season. Migratory birds from various parts of the world, such as

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Siberia, Europe, and other regions, arrive at the sanctuary during the winter months (typically from November to March) to escape the harsh winters in their native habitats.

Source: [Forum IAS](#)

Science & Technology

48. Correct Answer is (D)

- The generally accepted foundations of the theory of photon gas were proposed by Planck, Einstein, and Bose. Satyendra Nath Bose was a renowned Indian physicist who made significant contributions to the field of quantum mechanics. His work, in collaboration with Albert Einstein, laid the foundation for Bose-Einstein statistics and the concept of Bose-Einstein Condensates. Bose also developed a new way to derive Planck's Law for blackbody radiation. His approach involved treating photons as indistinguishable particles, leading to a statistical description of the photon gas.

Source: [Forum IAS](#)

49. Correct Answer is (D)

- MXenes are an emerging class of two-dimensional (2D) ceramic nanomaterials that were first discovered in 2011. MXenes uniquely combine metallic conductivity, hydrophilic surfaces, and excellent mechanical properties. They are made from a bulk crystal called MAX. **Its properties:** High electrical conductivity, Hydrophilic and clay-like surface terminating layers, very high volumetric capacitance, Broad optical absorption, Excellent mechanical properties. **Application:** Energy Storage, Electromagnetic Shielding, Water Purification, Composites.

Source: [Forum IAS](#)

50. Correct Answer is (A)

- Statements 1 and 2 are correct. HAPS is an unmanned aerial vehicle (UAV). It is designed for extended periods of operation at high altitudes, typically in the stratosphere. HAPS are equipped with solar panels and energy storage systems, enabling them to stay airborne for extended periods, often weeks or months, by harnessing solar energy during the day and utilizing stored energy during the night. HAPS operating cost is significantly lower than that of a satellite. HAPS can provide high-speed data transmission for large-scale events, as well as for various applications such as disaster management, environmental monitoring, and telecommunications, acting as a valuable alternative or complement to traditional satellite systems.
- Statement 3 is incorrect. The primary advantage of HAPS compared to traditional satellites is not their ability to operate beyond geostationary orbit, but rather their lower altitude operations (typically in the stratosphere, around 20-50 km above Earth's surface). This altitude allows HAPS to provide more targeted coverage, better resolution for imaging and data collection, and potential cost savings compared to satellite systems in higher orbits. HAPS are significantly less expensive to develop, launch, and operate compared to traditional satellites.

Source: [Forum IAS](#)

51. Correct Answer is (A)

- Statement 1 is correct. The Defence Acquisition Council is the apex body for decision-making in matters related to military procurement in India. It is responsible for approving major defence acquisitions, including weapons, platforms, and equipment, to meet the operational requirements of the Indian armed forces. The council was formed in 2001. It is headed by Defence minister.

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- Statement 2 is incorrect. The DAC's primary role is to provide approvals and policy direction for defense acquisitions. Contract negotiations for international deals are typically handled by separate teams within the Ministry of Defence.

Source: [Forum IAS](#)

52. Correct Answer is (B)

- ORAN promotes interoperability and open interfaces within the Radio Access Network (RAN) ecosystem, enabling mobile network operators to mix and match components from various vendors. This approach enables innovation, reduces reliance on a single vendor, and creates a more competitive and diverse market for RAN equipment. ORAN is based on open standards and architectures, allowing for a more flexible, scalable, and cost-effective deployment of mobile networks, including 5G. It features an open, multi-vendor architecture for deploying mobile networks, contrasting with the single-vendor proprietary architecture.

Source: [Forum IAS](#)

53. Correct Answer is (B)

- Statement 1 is incorrect. Pulsar stars do not emit light and radiation due to nuclear fusion reactions in their cores. Pulsars are neutron stars with strong magnetic fields that emit electromagnetic radiation in the form of rapid pulses as they rotate. These pulses are a result of the interaction between the neutron star's magnetic field and its surrounding environment, not nuclear fusion reactions.
- Statements 2 and 3 are correct. Supernova remnants are the bright, expanding clouds of gas and dust formed when massive stars explode in a supernova event. These remnants are rich in heavy elements produced during the star's lifetime and can provide valuable insights into the processes governing stellar evolution and the recycling of matter in the universe. The Five-hundred-meter Aperture Spherical radio Telescope (FAST) is the world's largest single-dish radio telescope, located in Guizhou Province, China. FAST's immense size and advanced technology enable astronomers to study a wide range of astronomical phenomena, including pulsars, supernova remnants, and other objects that emit radio waves.

Source: [Forum IAS](#)

54. Correct Answer is (C)

- Statements 1 and 2 are correct. Halogens refer to the six nonmetallic elements found in Group 17 (Group VIIa) of the periodic table. The halogen elements are-fluorine (F), chlorine (Cl), bromine (Br), iodine (I), astatine (At), and tennessine (Ts). Halogens are highly reactive and don't exist freely in nature. They are the most reactive nonmetals. Halogens are the only group on the periodic table where elements exist as solids, liquids, and gases at room temperature. They are strong oxidizers and have very high electronegativities. Fluorine is obtained from a calcium salt known as calcium fluoride, or fluorspar. It is a highly reactive element. In compounds, fluorine is the most prevalent halogen found in Earth's crust. It is used in making fluorochemicals, plastics, agrochemicals, lithium-ion batteries, and drugs.

Source: [Forum IAS](#)

55. Correct Answer is (A)

- Statement 1 is correct. Formaldehyde is a colorless, strong-smelling gas widely used in various industries for producing building materials, such as plywood and adhesives, as well as household products like cosmetics and certain fabrics.

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- Statement 2 is incorrect. Frozen smoke, or aerogel, are highly porous, lightweight materials typically made from silica, metal oxides, or other materials, using a process called sol-gel. They exhibit unique properties, such as low thermal conductivity and high surface area, making them useful in various applications, including insulation, filtration, and even aerospace technology. The term "frozen smoke" refers to a technology rather than a natural phenomenon. It describes sensors made from highly porous materials called aerogels, which are designed to detect toxic substances like formaldehyde in real time. Aerogels are also referred to as "liquid smoke" due to being more than 99% air by volume, allowing gases to easily move through their open structure.

Source: [Forum IAS](#)

56. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. The NASA-ISRO Synthetic Aperture Radar (NISAR) satellite is a dual-frequency satellite, operating at L-band and S-band frequencies. This dual-frequency capability allows for better discrimination between various land cover types and improved monitoring of Earth's surface changes. NISAR will provide detailed observations of Earth's surface, capturing changes in ice sheets, land deformation, and ecosystems. It will help scientists better understand the impacts of climate change, natural hazards, and human activities on the planet's surface. The satellite has been developed for Low Earth Orbit (LEO) observation, with an altitude of 747 km.

Source: [Forum IAS](#)

57. Correct Answer is (C)

- Statements 1 and 3 are correct. Alaskapox viruses are zoonotic, meaning they can be transmitted from animals to humans. These viruses can infect various mammals, including humans, often through direct contact with infected animals or their bodily fluids. It is a double-stranded DNA virus, meaning its genetic material consists of two complementary strands of DNA. This characteristic distinguishes it from other types of viruses, such as single-stranded DNA or RNA viruses.
- Statement 2 is incorrect. Alaskapox belongs to the Orthopoxvirus. Orthopoxvirus is a genus of viruses in the family Poxviridae. Vertebrates, including mammals and humans, and arthropods serve as natural hosts of this virus. Diseases caused by this virus are smallpox, cowpox, horsepox, camelpox, and monkeypox.

Source: [Forum IAS](#)

58. Correct Answer is (B)

- Statement 1 is incorrect. The Plankton, Aerosol, Cloud, ocean Ecosystem (PACE) satellite is a NASA mission designed to study the interplay of light, aerosols, and clouds. It aims to collect information on ocean ecology and global biogeochemistry. PACE's mission is to observe the Earth's ocean color, biogeochemistry, ecology, carbon cycle, aerosols, and clouds. The satellite will also help researchers learn more about the relationship between the atmosphere and ocean.
- Statements 2 and 3 are correct. PACE is placed in a sun-synchronous orbit, which means it maintains a consistent angle between the sun and the satellite's orbital plane. This orbit allows PACE to observe Earth's surface under similar lighting conditions throughout the year, making it easier to compare data over time. Sun-synchronous orbit means that it will always be synced to the same position relative to the Sun. The mission will help understand the influence of particles in the air, like dust and smoke, on cloud formation, warming and cooling of the planet.

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59. Correct Answer is (C)

- Statements 1 and 2 are correct. An ultracold atom is an atom with a temperature near absolute zero. At low temperatures near absolute zero, atoms behave according to the principles of quantum mechanics rather than classical physics. The commonly used techniques for the study of ultracold atoms is by deploying magneto-optical traps with high-power laser cooling techniques. Cold atoms of elements like sodium, potassium, rubidium are commonly studied. Detection techniques like the fluorescence, absorption or phase-contrast imaging techniques are used. The imaging through fluorescence or absorption techniques are widely used. The Future Circular Collider (FCC) is a particle accelerator currently under design, intended to accommodate the next generation of particle colliders. The FCC aims to design a hadron collider with a center-of-mass energy of about 100 TeV (trillion electron volts), which is eight times more powerful than the Large Hadron Collider's 13 TeV. The FCC aims to build upon the ongoing research at the Large Hadron Collider (LHC). It will enhance our understanding of fundamental physics. It will foster advancements in fields such as cryogenics, superconductivity, vacuum tech, and detector instruments.

Source: [Forum IAS](#)

60. Correct Answer is (B)

- Statements 1 and 3 are incorrect. Bubonic plague is a bacterial infection caused by the bacterium *Yersinia pestis*. It is a severe bacterial infection caused by a bacteria called *Yersinia pestis*, which is typically found in small mammals and their fleas. Bubonic plague is treatable with antibiotics. It can be cured with antibiotics like Ciprofloxacin, levofloxacin, moxifloxacin, Gentamicin, and Doxycycline. Bubonic plague is named after the swollen lymph nodes (buboes) it causes. It resulted in millions of deaths in Europe during the Middle Ages. The plague is also known as the Black Death.
- Statement 2 is correct. The Bubonic Plague spreads between animals and humans through flea bites, direct contact with infected tissues, and inhaling infected respiratory droplets.

Source: [Forum IAS](#)