

10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

[2nd Week] February, 2024

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Art & Culture and Medieval History

Q.1) Consider the following statements regarding the Kamakhya Temple:

1. The temple has been constructed in Nilachal type of temple architecture.
2. The temple features Valabhi Shikhara architectural style.
3. Ahom Kingdom is associated with the construction and development of the Kamakhya Temple.

How many of the statements given above are correct?

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

Q.2) With reference to the Grammy Awards, consider the following statements:

1. The Grammy Awards recognizes excellence in film and television.
2. Some Indian personalities have been honored with the Grammy Award.

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) Consider the following statements with respect to Deepastambham (lamp post) pillar:

1. The pillar was dedicated to Kasi Viswanatha.
2. During the construction of the lamp post, the Nalgonda region was governed by the Qutb Shahi dynasty.

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

Geography

Q.4) Consider the following statements:

1. Hematite iron ore is often associated with sedimentary rocks.
2. Iron ore pellets are small, hard, spherical particles made from fine iron ore concentrate.
3. Sponge iron refers to a type of cast iron with high carbon content and brittle properties.

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.5) With reference to the Wheat crop, how many of the following statements are correct?

1. India is the world's largest producer of wheat.
2. It is the second most important cereal crop in India after rice.
3. It is a kharif crop.
4. It requires 50 cm to 100 cm of rainfall.

Select the correct answer using the codes given below:

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

Q.6) Which of the following countries does the Mekong River flow through?

- a) China, Myanmar, Laos, Thailand, Cambodia, Vietnam
- b) India, Bangladesh, Nepal, Bhutan, Myanmar
- c) Indonesia, Malaysia, Philippines, Thailand, Singapore
- d) Egypt, Sudan, Ethiopia, South Sudan, Uganda

Q.7) Which of the following European countries has a coastline along the Mediterranean Sea?

- a) Spain, France, Italy, Malta
- b) Andorra, Austria, Czech Republic, Hungary
- c) Liechtenstein, Luxembourg, North Macedonia, Serbia
- d) Morocco, Algeria, Tunisia, Libya

Q.8) With reference to the Krishna River, which of the following statement(s) is/are correct?

1. It is the third-longest river in India.
2. Dudhaganga is its largest tributary on its left bank.
3. It rises in Brahmagiri hills of Karnataka.

Select the correct answer using the codes given below:

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

Modern Indian History

Q.9) Consider the following statements:

1. Gandhi's idea of 'Swaraj' only emphasized on achieving political freedom.
2. Ambedkar believed that the Constitution included liberty, equality, and fraternity as interlinked principles of life.

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

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

Polity

Q.10) In which one of the following ways, is the concept of "We the People" given in the Preamble connected to the Fundamental Rights enshrined in the Constitution?

- a) It does not affect Fundamental Rights, which exist independently and separately.
- b) It empowers the government to grant or restrict Fundamental Rights based on need.
- c) It establishes the people as the holders and beneficiaries of Fundamental Rights.
- d) It implies that Fundamental Rights are only applicable to certain privileged groups within the society.

Q.11) With reference to the Uniform Civil Code (UCC), consider the following statements:

- 1. The concept of a Uniform Civil Code (UCC) in India draws inspiration from Right to Equality.
- 2. After the implementation of the UCC in India, issues related to freedom of religious expression and worship will easily be addressed.
- 3. Implementing UCC would promoting social equality by removing differences in the law based on religion.

How many of the statements given above are correct?

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

Q.12) Which one of the following constitutional amendments granted financial autonomy to Panchayati Raj Institutions?

- a) 42nd Amendment
- b) 73rd Amendment
- c) 52nd Amendment
- d) 93rd Amendment

Q.13) Consider the following statements regarding the Spice Board of India:

- 1. It is a statutory body constituted under Spices Board Act 1986.
- 2. It is responsible for determining Minimum Support Prices (MSP) for spices.
- 3. It comes under the Ministry of Commerce and Industry.

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.14) Consider the following statements:

- 1. The financial transfers through Centrally Sponsored Schemes (CSS) and Central Sector Schemes (CSec) are statutory transfers to the states.
- 2. The Finance Commission has been granted the power by the Constitution to recommend the distribution of net tax revenues among the states.
- 3. The share of states in the gross tax revenue has decreased in recent years.

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.15) Consider the following statements:

1. Panchayats earn only 1% of their income through taxes, with the rest being sourced from Central and State grants.
2. The Gram Panchayat is the elected body at the block level.

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.16) Consider the following statements:

1. A municipal corporation is a type of local government in India which administers rural areas with a population of less than one million.
2. The 74th Amendment Act defined the formations of urban local governments and their activities.
3. The area administered by a municipal corporation is known as a municipal area.

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.17) Consider the following statements:

1. Delimitation exercise ensures fair and effective representation in a democracy by equitably distributing funds among all electoral constituencies.
2. The Delimitation Commission is responsible for redrawing the boundaries of State Legislative Councils and Rajya Sabha constituencies.

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.18) With reference to the Election Commission of India, consider the following statements:

1. It is responsible for conducting elections for the President and Vice President.
2. The President of India has the discretionary power to remove the Chief Election Commissioner from office due to the misconduct or improper behavior.
3. The term of office for an Election Commissioner is five years from the date of joining the office.

How many of the statements given above are correct?

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

Q.19) With reference to the Educational Consultants India Limited (EdCIL), consider the following statements:

1. It is the only Public Sector Undertaking (PSU) under the Ministry of Education.
2. It aims to conduct research and development in the field of education.
3. Educational infrastructure development is one of the services offered by EdCIL.

How many of the statements given above are correct?

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

Acts & Policies

Q.20) Consider the following statements:

1. Micro-credentials offer a flexible and efficient way to gain in-demand skills through short, focused learning experiences, leading to recognized certifications in specific areas.
2. Micro-credentials have a universal standardized curriculum and assessment process across different issuing institutions or platforms.
3. Micro-credentials are incorporated within the National Credit Framework (NCrF).

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.21) With reference to the Inclusive Education for Disabled at Secondary Stage (IEDSS) scheme, consider the following statements:

1. It enables students with disabilities to pursue four years of secondary schooling after completing eight years of elementary schooling.
2. The scheme covers all children studying at the secondary stage in Government, local body and Government-aided schools, with one or more disabilities as defined under the Persons with Disabilities Act (1995) and the National Trust Act (1999).
3. The scheme offers specialized education programs exclusively for students with disabilities.

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.22) Consider the following statements:

Statement-I: Sanitation coverage in India saw a significant improvement, increasing from 39% in 2014 to a 100% by 2019.

Statement-II: Swachh Bharat Mission (SBM) aimed for universal sanitation coverage by 2019.

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.23) With reference to the Public Examinations (Prevention of Unfair Means) Bill 2024, consider the following statements:

- 1. The Bill makes offenses bailable and non-cognizable.
- 2. The Bill is applicable to central recruitment and entrance exams conducted by the Union Public Service Commission (UPSC).
- 3. Impersonating a candidate on an exam is considered an "unfair means" under the Bill.

How many of the statements given above are correct?

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

Q.24) Which one of the following is the primary objective of the Prime Minister's Development Initiative for the North East Region (PMDevINE) scheme?

- a) To promote tourism in the North Eastern Region (NER) of India.
- b) To address development gaps and improve infrastructure in the NER.
- c) To provide financial assistance to small and medium businesses in the NER.
- d) To facilitate cultural exchange programs between the NER and other regions.

Q.25) Which one of the following statements provides the most accurate description of the functioning of the Production Linked Incentive (PLI) Scheme?

- a) Companies are reimbursed for their production costs by the government.
- b) Companies are provided with tax breaks for exporting goods.
- c) Companies receive financial incentives based on their incremental sales over a predefined base year.
- d) Companies are granted exclusive rights to sell their products in designated markets.

Q.26) Which one of the following is the objective of Enhancement of Competitiveness in the Indian Capital Goods Sector scheme?

- a) Providing financial assistance to large public sector undertakings
- b) Increasing foreign direct investment in the capital goods sector
- c) Addressing technological obsolescence and improving quality standards
- d) Promoting exports of agricultural machinery and equipment

International Relations/Organizations

Q.27) With reference to the Dispute Settlement System of the WTO (World Trade Organization), consider the following statements:

1. It provides a forum for negotiations on trade agreements.
2. The Dispute Settlement Body (DSB) of the WTO is comprised of representatives of all WTO member countries.

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) Which of the following international organizations jointly established the Codex Alimentarius Commission?

- a) World Health Organization (WHO) and Food and Agriculture Organization (FAO)
- b) International Monetary Fund (IMF) and World Bank
- c) United Nations Educational, Scientific, and Cultural Organization (UNESCO) and International Labour Organization (ILO)
- d) United Nations Development Programme (UNDP) and United Nations Environment Programme (UNEP)

Q.29) With reference to India-Myanmar relations, consider the following statements:

1. Myanmar is India's gateway to South-East Asia and development of North-Eastern India.
2. Both India and Myanmar were part of British India during colonial rule.
3. India, Myanmar, and Thailand are building the Asian Trilateral Highway, which will connect India to ASEAN.

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.30) With reference to the Kaladan Multimodal Project, consider the following statements:

1. It aims to create a dedicated freight corridor for transporting goods between India and Bangladesh.
2. It will reduce the need to transport goods through the narrow Siliguri corridor.
3. It will strengthen India's Act East Policy.

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.31) Consider the following statements with respect to the International Energy Agency (IEA):

1. World Energy Outlook report is published by the International Energy Agency (IEA).
2. It is responsible for advising governments on energy policy.
3. It is a subsidiary of the United Nations (UN).

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

Economy

Q.32) With reference to the Competition Commission of India (CCI), which of the following statement(s) is/are correct?

1. The Commission is a quasi-judicial body.
2. It is responsible for promoting competition in the Indian market and preventing anti-competitive practices.
3. Offering discounts and promotional offers to attract customers is an anti-competitive practice prohibited by the CCI.

Select the correct statements using the codes given below:

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

Q.33) With reference to the Coal Mines Provident Fund Organization, consider the following statements:

1. It is an autonomous organization under the aegis of Ministry of Coal.
2. It aims to ensure safety regulations are being followed in coal mines.

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.34) Consider the following statements:

1. Foreign investors must use local legal remedies for at least five years before seeking international arbitration.
2. Taxation measures imposed by India are included.
3. The Most Favored Nation (MFN) clause is present, ensuring equal treatment among investors.

How many of the above characteristics are correct regarding the India's model of Bilateral Investment Treaties (BITs)?

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

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Q.35) With reference to Nanostructured diammonium phosphate (Nano-DAP), which of the following statement(s) is/are correct?

1. Nano-DAP is a genetically modified fertilizer designed to enhance crop yields by directly injecting it into plant cells.
2. It can assist the government lower its fertilizer subsidy burden.
3. It can also be combined with other nano-fertilizers like nano-urea to increase agricultural benefits.

Select the correct statements using the codes given below:

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

Q.36) In the context of the Blue Economy, the term "blue carbon" refers to:

- a) Carbon dioxide emitted by marine industries
- b) Carbon stored in coastal and marine ecosystems
- c) Carbon tax imposed on shipping vessels
- d) Carbon trading in ocean-based markets

Q.37) Consider the following statements:

1. An Annual Budget requires assent from the President, while an Interim Budget does not require such assent.
2. An Interim Budget requires approval from both houses of Parliament, while an Annual Budget only requires approval from the Lok Sabha.
3. Interim Budget outlines long-term economic policies and reforms.

How many of the statements given above are correct?

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

Q.38) With reference to the Net Borrowing Ceiling (NBC), consider the following statements:

1. It refers to limit on borrowing imposed by the central bank for commercial banks.
2. If a government consistently exceeds its Net Borrowing Ceiling (NBC), it may downgrade its credit rating.
3. Net Borrowing Ceiling helps in maintaining fiscal discipline.

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 bodies is responsible for recommending the devolution of taxes from the central government to states?

- a) The National Development Council
- b) The Reserve Bank of India
- c) The Finance Commission
- d) The Supreme Court of India

Q.40) With reference to the Annual Survey of Industries (ASI), consider the following statements:

1. It is the primary source of industrial statistics in the country.
2. The survey is conducted by the Department for Promotion of Industry and Internal Trade (DPIIT).
3. The ASI extends to the entire country.
4. It does not cover unorganised or unregistered or informal sector enterprises.

Which of the statements given above are correct?

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

Environment

Q.41) Consider the following statements regarding the Apollo Species of Butterflies:

1. Dusted Apollo Butterfly is known for its distinctive wing patterns and coloration.
2. All species of the Apollo butterfly are migratory, travelling long distances between seasons.
3. They are highly valued butterflies in commercial trade.

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.42) With reference to the 'Lantana Camara' plant, consider the following statements:

1. It is an invasive species in India.
2. The invasion of Lantana Camara heavily impacts the Nilgiri Biosphere Reserve in the Western Ghats.
3. The species is also responsible for increasing soil fertility.

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.43) Which one of the following pollutants is primarily responsible for the depletion of the ozone layer?

- a) Chlorofluorocarbons (CFCs)
- b) Carbon monoxide
- c) Hydrocarbons
- d) Sulfur dioxide

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Q.44) Consider the following statements with reference to the Black-necked Crane:

1. It is a medium-sized crane in Asia that breeds on the Tibetan Plateau and remote parts of India and Bhutan.
2. Changthang Sanctuary in Ladakh has been notified as a Protected Area for the Black-necked Crane.
3. It is classified as 'Vulnerable' in the IUCN Red Data List.

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.45) Thrips parvispinus, see in the news recently, is:

- a) A species of plant
- b) A type of fish
- c) An insect pest
- d) A microorganism

Q.46) With reference to the Aldabra giant tortoise, how many of the following statements are correct?

1. Its solitary lifestyle makes it distinct from other tortoise species.
2. These are endemic to the Aldabra Atoll in the Seychelles.
3. They are listed Vulnerable in the IUCN Red Data List.
4. They are important in keeping the ecological balance within a habitat mosaic.

Select the correct answer using the codes given below:

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

Q.47) With reference to the Environmental Impact Assessment (EIA) process, which one of the following describes the role played by monitoring and enforcement?

- a) It ensures that the proposed project proceeds without any environmental oversight.
- b) It assesses the economic viability of the proposed project.
- c) It verifies compliance with environmental regulations and mitigation measures.
- d) It oversees the financial aspects of the project.

Q.48) In which one of the following states is the 'Sepahijala Wildlife Sanctuary' located?

- a) Assam
- b) Tripura
- c) Manipur
- d) Mizoram

Q.49) Consider the following statements with respect to the Clouded Leopard:

1. It is the state animal of Meghalaya.
2. It is classified as Vulnerable under the IUCN Red List.
3. They inhabit alpine and subalpine zones of mountainous regions of Central and South Asia.

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

Science & Technology

Q.50) Cygnus X-1, seen in the news recently, is classified as a:

- a) Black hole
- b) Neutron star
- c) White dwarf
- d) Supernova remnant

Q.51) Consider the following statements:

1. Wheat blast is a disease caused by a weather phenomenon causing sudden temperature fluctuations in wheat-growing regions.
2. High humidity and temperatures favor the development of wheat blast.

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.52) For which one of the following purposes is X-ray polarimetry primarily used in astronomy?

- a) Identifying the chemical composition of celestial objects
- b) Mapping the distribution of dark matter in galaxies
- c) Locating the source regions of X-ray radiation near black holes
- d) Measuring the temperatures of stars

Q.53) Which one of the following statements is correct regarding 'Ergosphere'?

- a) It is a region around a black hole where photons (light particles) can orbit the black hole in a circular path.
- b) It is a region found outside the event horizon of a rotating black hole, where the black hole's immense gravity drags spacetime itself along with its rotation.
- c) It is the central point within a black hole where matter is infinitely dense and gravitational forces are infinitely strong.
- d) It is the closest orbit around a black hole where an object can stably orbit without eventually spiraling into the black hole.

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Q.54) Consider the following statements:

1. Nuclear fission is the process of combining two or more atomic nuclei to form a heavier nucleus.
2. A nuclear reactor produces power without any dependence on weather and other conditions.

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.55) Which one of the following is the primary objective of the Transiting Exoplanet Survey Satellite (TESS)?

- a) Directly imaging exoplanets
- b) Measure the atmospheres of exoplanets
- c) Discover new exoplanets using the transit method
- d) Study the formation and evolution of planetary systems

Q.56) Consider the following:

1. Drug discovery and personalized medicine
2. Advanced materials development
3. Social media content optimization
4. Autonomous vehicles and robotics

In how many of the above areas does 'Deep Tech' find application?

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

Q.57) With reference to the Chimeric antigen receptor (CAR) T-cell therapy, which of the following statement(s) is/are correct?

1. It falls under the category of radiation therapy.
2. This therapy is less demanding and has fewer side effects compared to traditional treatments like chemotherapy.

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.58) With reference to SMART food grain storage system (SAFEETY) technology, consider the following statements:

1. The objective of this system is to reduce transportation costs for grains.
2. Grain bags are tagged with Radio Frequency Identification (RFID) for ensuring its traceability.
3. The SAFEETY system is a step towards achieving the goals of smart city projects.

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.59) Consider the following statements:

1. Vaccine Safety Net aims to provide scientifically based information on vaccine safety in various languages.
2. The objective of the Healthy Indian Project is to carry out routine health assessments for elderly individuals across India.

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) With reference to the Satellite-based toll collection system, consider the following statements:

1. It is a GPS based toll collection system.
2. It will enable vehicles to move freely without the need to stop for toll payments.
3. Every vehicle in this GPS-based toll collection system will need an onboard unit (OBU) linked to a constellation of satellites.
4. It will replace the existing radio frequency identification-based FASTag system.

How many of the statements given above are correct?

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

Answer Key

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

Answers & Explanations

Art & Culture and Medieval History

1. Correct Answer is (B)

- Statements 1 and 3 are correct. The temple has been constructed in the Nilachal type of temple architecture, which is a combination of the traditional nagara or North Indian and saracenic or Mughal styles. The Ahom Kingdom, which ruled over parts of present-day Assam from the 13th to the 19th century, played a significant role in the development of the Kamakhya Temple. The Ahom kings were patrons of the temple, and they contributed to its expansion and renovation over the centuries.
- Statement 2 is incorrect. The Valabhi Shikhara style is primarily found in temples of western India, particularly in Gujarat and Rajasthan. It's characterized by a rectangular shape and curved shikhara. The Kamakhya Temple's shikhara is more aligned with the beehive shape common to the Nilachal style.

Source: [Forum IAS](#)

2. Correct Answer is (B)

- Statement 1 is incorrect. The Grammy Awards do not recognize excellence in film and television. They are awarded for achievements in the music industry. It is a prestigious award presented annually by the Recording Academy to honour outstanding achievements in the music industry. The Grammy Awards were first established in 1959 to honour artistic and technical excellence across various music genres. It includes a wide range of categories covering such as pop, rock, rap, country,

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classical, jazz, and many more. It is held annually in Los Angeles, California, typically in January or February.

- Statement 2 is correct. There are 15 Indians who have won Grammy Awards such as A.R. Rahman, Zakir Hussain etc.

Source: [Forum IAS](#)

3. Correct Answer is (C)

- Statements 1 and 2 are correct. Recently, archaeologists discovered a 390-year-old Deepastambham (lamp post) on the banks of the River Krishna in Nalgonda district, Telangana. According to the inscription found on the lamp post, the pillar can be dated back to June 1635. The inscription, comprising a fusion of Telugu and Tamil languages which suggests that the pillar was dedicated to Kasi Viswanatha. The impressive height of the pillar hints at its possible role as a lighthouse, aiding ships along the riverine trade route in the early medieval era. During the construction of the lamp post, the Nalgonda region was governed by the Qutb Shahi dynasty. European travelers like the French diamond trader Tavernier, who visited the Hyderabad kingdom has also made note of these land trade routes.

Source: [Forum IAS](#)

Geography

4. Correct Answer is (B)

- Statements 1 and 2 are correct. Hematite is commonly found in sedimentary rocks and is one of the primary iron ores. Iron ore pellets are small, hard, spherical particles made from fine iron ore concentrate, and they are the principal raw material for blast furnaces.
- Statement 3 is incorrect. Sponge iron, also known as direct-reduced iron (DRI), is a high-quality iron ore product made from iron ore fines and is used in the production of steel. It is not a type of cast iron with high carbon content and brittle properties. Sponge iron is produced from the direct reduction of iron ore (in the form of lumps, pellets, or fines) into iron by a reducing gas which either contains elemental carbon (produced from natural gas or coal) or hydrogen.

Source: [Forum IAS](#)

5. Correct Answer is (B)

- **Wheat:** It is the main cereal crop in India. It is the second most important cereal crop in India after rice. It is a Rabi Crop which is sown in October-December and harvested during April-June. The optimum temperature range for ideal germination of wheat seed is 20-25 C. about 50 to 100 cm of rainfall is needed for the cultivation of wheat. Soils with a clay loam or loam texture, good structure and moderate water holding capacity are ideal for wheat cultivation. Uttar Pradesh, Punjab, Haryana, Madhya Pradesh, Rajasthan, Bihar and Gujarat are the major wheat growing region in India. China is the world's largest producer of wheat. India is the second-largest producer of wheat.

Source: [Forum IAS](#)

6. Correct Answer is (A)

- Mekong River is a trans-boundary river in East Asia and Southeast Asia. It is the world's twelfth-longest river and the third-longest in Asia. It originates from the Sanjanyuang in the Tibetan Plateau in China. The river drains into the South China Sea. It flows through six Asian countries: China, Myanmar, Laos, Thailand, Cambodia and Vietnam. It covers a total length of 2700 km. It is the second most biodiverse river basin in the world, after Amazon River Basin.

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The Mekong Ganga Cooperation (MGC) is an initiative by six countries – India and five ASEAN countries – Cambodia, Laos, Myanmar, Thailand, and Vietnam.

Source: [Forum IAS](#)

7. Correct Answer is (A)

- There are 22 countries and one territory whose coasts are on the Mediterranean Sea.
- **The European Countries-** Spain, France, Italy, Malta, Monaco, Slovenia, Croatia, Bosnia and Herzegovina, Montenegro, Albania, and Greece.
- **The West Asian (Middle Eastern) countries-** Turkey, Syria, Lebanon, Israel, the Palestine Gaza Strip and the divided island of Cyprus.
- **Five North African countries-** Morocco, Algeria, Tunisia, Libya and Egypt.

Source: [Forum IAS](#)

8. Correct Answer is (A)

- Statement 1 is correct. Krishna River is the third-longest river in India, after the Ganges and Godavari. It is the fourth-largest in India in terms of water inflows and river basin area after the Ganges, Indus, and Godavari. Its basin extends over Andhra Pradesh, Maharashtra and Karnataka.
- Statements 2 and 3 are incorrect. The Dudhaganga is a right bank tributary river of the Krishna River in western India. Tungabhadra is the largest tributary of the Krishna River. The Krishna River originates in the Western Ghats near Mahabaleshwar at an elevation of about 1,300 metres (4,300 ft), in the state of Maharashtra. From Mahabaleshwar it flows to the town of Wai and continues to travel east until it empties into the Bay of Bengal.

Source: [Forum IAS](#)

Modern Indian History

9. Correct Answer is (B)

- Statement 1 is incorrect. Gandhi's idea of 'Swaraj' did not only emphasize achieving political freedom, but also focused on self-governance, economic independence, and moral and spiritual development.
- Statement 2 is correct. Ambedkar believed that the Constitution included liberty, equality, and fraternity as interlinked principles of life. Ambedkar considered these principles to be inseparable and crucial for a just and equitable society. He argued that political freedom without social and economic equality was meaningless.

Source: [Forum IAS](#)

Polity

10. Correct Answer is (C)

- The concept of "We the People" emphasizes the people's sovereignty and their role as the ultimate source of authority within the Indian Constitution. This directly connects to the Fundamental Rights enshrined in the Constitution. These rights are not bestowed upon the people by the government, but rather they are inherent and enjoyed by the people themselves. The Preamble, by stating "We the People," establishes this connection and makes it clear that these rights belong to the people as a whole.

Source: [Forum IAS](#)

11. Correct Answer is (B)

- Statements 1 and 3 are correct. The UCC aims to ensure equal treatment of all citizens, irrespective of their religion, in matters such as marriage, divorce, and inheritance, aligning with the Right to

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Equality. A major goal of the UCC is to ensure that all citizens are treated equally before the law, regardless of their religious background. This attempts to level the playing field where certain personal laws create different treatment of individuals depending on their faith.

- Statement 2 is incorrect. The UCC primarily deals with civil matters like marriage, divorce, inheritance, and adoption. It's not specifically designed to regulate religious practices and expressions of faith. Further, issues related to religious expression and worship are protected under the fundamental right to freedom of religion guaranteed by the Indian Constitution (Article 25), and they may require separate considerations and legal frameworks beyond the scope of the UCC. This fundamental right would continue to exist even after a UCC is implemented.

Source: [Forum IAS](#)

12. Correct Answer is (B)

- The 73rd Amendment to the Indian Constitution granted financial autonomy to Panchayati Raj Institutions (PRIs) by providing them with the power to levy and collect taxes, fees, and other revenue.

Source: [Forum IAS](#)

13. Correct Answer is (C)

- Statements 1 and 3 are correct. The Spice Board of India is a statutory body constituted under the Spices Board Act, 1986, and comes under the Ministry of Commerce and Industry, Government of India. The board is headquartered in Kochi. There are also regional laboratories at Mumbai, Chennai, Delhi, Tuticorin, Kandla and Guntur.
- Statement 2 is incorrect. The Spice Board is not responsible for determining Minimum Support Prices (MSP) for spices. This function falls under the purview of the Commission for Agricultural Costs and Prices (CACP). The Spice Board has the responsibility of production/development of cardamom and export promotion of 52 spices shown in the schedule of the Act.

Source: [Forum IAS](#)

14. Correct Answer is (B)

- Statement 1 is incorrect. Net Tax Revenues and Grant-In Aids form the two statutory transfers to the states by the Central Government. The financial transfers through Centrally Sponsored Schemes (CSS) and Central Sector Schemes (CSec) are non-statutory transfers to the states. Statutory transfers refer to payments mandated by law or statute while non-statutory transfers refer to payments that are not mandated by law.
- Statements 2 and 3 are correct. The Finance Commission is a constitutional body established by the President under Article 280 of the Constitution. The Commission's primary responsibility is to evaluate the state of finances of the Union and State Governments. The functions of the Finance Commission as mandated by the Constitution are to make recommendations on a) the distribution between the Union and the States of the net proceeds of union taxes, b) the distribution between the States of their respective shares and c) the principles which should govern grants-in-aid to the States. The share of states in the gross tax revenue (total tax revenue collected, which includes cess and surcharges) has decreased from 35% in 2015-16 to 30% in 2023-24.

Source: [Forum IAS](#)

15. Correct Answer is (A)

- Statement 1 is correct. A recent RBI study noted that panchayats earn only 1% of their income through taxes, with the rest being sourced from Central and State grants.

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- Statement 2 is incorrect. In India, the Panchayat Raj system has three tiers: 1) Zila Parishad: At the district level, 2) Panchayat Samiti: At the block level, 3) Gram Panchayat: At the village level.

Source: [Forum IAS](#)

16. Correct Answer is (B)

- Statement 1 is incorrect. Municipal corporations in India govern urban areas with a population of more than one million. Smaller urban areas are managed by municipalities or Nagar Palikas.
- Statements 2 and 3 are correct. The 74th Amendment Act of the Constitution of India, enacted in 1992, established a framework for urban local governments (ULGs) and outlined their powers and responsibilities. The area administered by a municipal corporation is known as a municipal area. Each municipal area is divided into territorial constituencies known as wards. A municipal corporation is made up of a wards committee. Each ward has one seat in the wards committee. Members are elected to the wards committee on the basis of adult franchise for a term of five years. These members are known as councillors or corporators. The number of wards in a municipal area is determined by the population of the city.

Source: [Forum IAS](#)

17. Correct Answer is (D)

- Statements 1 and 2 are incorrect. The delimitation exercise does not focus on equitably distributing funds among electoral constituencies. Instead, its primary objective is to ensure fair and effective representation in a democracy by redistributing constituencies based on demographic changes. The Delimitation Commission in India is primarily responsible for redrawing the boundaries of Lok Sabha (the lower house of Parliament) and State Legislative Assembly constituencies.

Source: [Forum IAS](#)

18. Correct Answer is (A)

- Statement 1 is correct. The Election Commission of India is responsible for conducting elections for the offices of the President and Vice President of India, as well as elections to Parliament, state legislatures. The Commission ensures that elections are conducted in a free, fair, and impartial manner, following the rules and regulations outlined in the Indian Constitution and various election-related laws.
- Statements 2 and 3 are incorrect. The President of India does not have discretionary power to remove the Chief Election Commissioner (CEC) from office due to misconduct or improper behavior. The removal process for the CEC is defined in Article 324 of the Indian Constitution, which states that the CEC can only be removed in the same manner as a judge of the Supreme Court. The President does not have the unilateral power to remove the CEC based on misconduct or improper behavior. The term of office for an Election Commissioner, including the Chief Election Commissioner, is six years or until they reach the age of 65, whichever comes earlier.

Source: [Forum IAS](#)

19. Correct Answer is (B)

- Statements 1 and 3 are correct. Educational Consultants India Limited (EdCIL) is a Mini Ratna Category-I Central Public Sector Enterprise (CPSE), and it is the only PSU under the administrative control of the Ministry of Education, Government of India. EdCIL provides a range of services in the field of education, and one of its key service areas is educational infrastructure development.

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- Statement 2 is incorrect. The objective of EdCIL is to provide consultancy and technical services in the field of education and human resource development. It does not conduct research and development in the field of education.

Source: [Forum IAS](#)

Acts & Policies

20. Correct Answer is (C)

- Statements 1 and 3 are correct. Micro-credentials offer a flexible and efficient way to gain in-demand skills through short, focused learning experiences, leading to recognized certifications in specific areas. Micro-credentials are incorporated within the National Credit Framework (NCrF) in India, which outlines learning outcomes and credits for progression.
- Statement 2 is incorrect. Micro-credentials refer to courses that are usually offered by platforms like Coursera, Udemy, Microsoft, etc. These are specialized short term courses that adds value to a person's skill and knowledge. However, these platforms differ and there is no standardized curriculum and assessment process for micro-credentials. Each has its own standard and assessment process. A universal standard across all institutions and platforms doesn't exist.

Source: [Forum IAS](#)

21. Correct Answer is (A)

- Statements 1 and 2 are correct. IEDSS enables students with disabilities to pursue four years of secondary schooling after completing eight years of elementary schooling in an inclusive environment. The scheme covers all children studying at the secondary stage in Government, local body and Government-aided schools, with one or more disabilities as defined under the Persons with Disabilities Act (1995) and the National Trust Act (1999). This scheme is now subsumed under Rashtriya Madhyamik Shiksha Abhiyan. Funds are released per student for student-oriented components, such as medical and educational assessment, books and stationery, uniforms, transport allowance, reader allowance, stipend for girls, support services, assistive device etc.
- Statement 3 is incorrect. The IEDSS scheme aims to provide inclusive education for disabled children at the secondary stage, rather than offering specialized education programs exclusively for students with disabilities. The central focus of the IEDSS scheme is on inclusive education. This means students with disabilities learn alongside their peers in a regular classroom setting, with adaptations and support as needed.

Source: [Forum IAS](#)

22. Correct Answer is (A)

- Statement – I: As per the government, Sanitation coverage in India significantly improved from 39% in 2014 to 100% in 2019.
- Statement-II: The Swachh Bharat Mission (SBM), launched by the Indian government in 2014, had the primary objective of achieving universal sanitation coverage in India by 2nd October 2019, the 150th birth anniversary of Mahatma Gandhi. The mission focused on the construction of individual household toilets, community and public toilets, and promoting behavioral changes to improve hygiene and sanitation practices.
- Hence, Statement II explains the reason behind the Statement I.

Source: [Forum IAS](#)

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23. Correct Answer is (B)

- Statement 1 is incorrect. Section 9 of the Bill states that all offences shall be cognizable, non-bailable, and non-compoundable — which means that an arrest can be made without a warrant and bail will not be a matter of right.
- Statements 2 and 3 are correct. The bill is applicable to central recruitment and entrance exams conducted by Union Public Service Commission (UPSC), Staff Selection Commission (SSC), Railway Recruitment Boards (RRBs), National Testing Agency (NTA) and Institute of Banking Personnel Selection (IBPS). Impersonation during an exam, along with other activities like sharing question papers, using unauthorized communication devices, and organizing cheating gangs, are all considered "unfair means" and punishable under the Bill.

Source: [Forum IAS](#)

24. Correct Answer is (B)

- The primary objective of the PMDevINE scheme is to address development gaps and improve infrastructure in the North Eastern Region (NER) of India. PMDevINE was specifically launched to tackle development deficits in the North Eastern Region of India. The scheme aims to fund large-scale infrastructure projects and social development initiatives in critical areas like connectivity, healthcare, education, and livelihood generation.

Source: [Forum IAS](#)

25. Correct Answer is (C)

- The PLI Scheme is an initiative by the Government of India to incentivize domestic manufacturing and boost the country's industrial growth. Under this scheme, eligible companies receive financial incentives in the form of cash subsidies based on their incremental sales of manufactured goods over a specified base year. The scheme aims to encourage companies to increase their production capacity, enhance competitiveness, and attract investment in various sectors, including electronics, pharmaceuticals, automobiles, and textiles.

Source: [Forum IAS](#)

26. Correct Answer is (C)

- The objective of the Enhancement of Competitiveness in the Indian Capital Goods Sector scheme is addressing technological obsolescence and improving quality standards. The Smart Advanced Manufacturing and Rapid Transformation Hub (SAMARTH) centres will be set up under the Scheme for "Enhancement of Competitiveness in the Indian Capital Goods Sector". These centers will provide assistance to the MSMEs to train the workforce and make them aware about Industry 4.0 technologies.

Source: [Forum IAS](#)

International Relations/Organizations

27. Correct Answer is (B)

- Statement 1 is incorrect. The Dispute Settlement System of the WTO aims to resolve disputes between member countries regarding violations of WTO agreements, not to provide a forum for negotiations on trade agreements.
- Statement 2 is correct. The Dispute Settlement Body (DSB) of the World Trade Organization (WTO) is made up of representatives of all WTO member countries. The DSB is responsible for administering the Dispute Settlement Understanding (DSU) and overseeing the entire dispute settlement process. The DSB is made up of all member governments, usually represented by ambassadors or equivalent.

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Source: [Forum IAS](#)

28. Correct Answer is (A)

- The Codex Alimentarius Commission was established in 1963 by the WHO and FAO. Its primary goal is to develop international food standards, guidelines, and codes of practice aimed at protecting consumer health and ensuring fair practices in the food trade. It consists of 189 member countries. It is an international, intergovernmental body which is based in Rome. The programme of work of the Commission is funded through the regular budgets of WHO and FAO. The standards developed by the Committees under the CAC, including the CCSC, are voluntary in nature. Its standards are recognized by the WTO to resolve trade disputes concerning food safety and consumer protection.

Source: [Forum IAS](#)

29. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. Myanmar is India's gateway to South-East Asia and development of North-Eastern India. Myanmar can be seen as a gateway to Southeast Asia for India, providing land and sea access to the region and facilitating trade and cultural exchanges. Both India and Myanmar were part of British India during colonial rule, gaining independence in 1947 and 1948, respectively. India, Myanmar, and Thailand are indeed collaborating on the Asian Trilateral Highway (ATH) project, which aims to connect India to Southeast Asia through Myanmar.

Source: [Forum IAS](#)

30. Correct Answer is (B)

- Statement 1 is incorrect. The Kaladan Multi-Modal Transit Transport Project was jointly identified by India and Myanmar to create a multi-modal mode of transport for the shipment of cargo from the eastern ports of India to Myanmar. It connects the eastern Indian seaport of Kolkata with Sittwe seaport in Rakhine State, Myanmar by sea. It will reduce the distance from Kolkata to Sittwe by approximately 1,328 km.
- Statements 2 and 3 are correct. The project will reduce the distance from Kolkata to Sittwe by approximately 1,328 km. It will reduce the need to transport goods through the narrow Siliguri corridor. This project will connect Sittwe Port in Myanmar to the India-Myanmar border. It will contribute to the economic development of the North-Eastern States of India, by opening up the sea route for the products. It provides an alternative to the Chicken's Neck. This will lead to enhanced India's control over its northeastern frontier and reduced logistical vulnerabilities. It will strengthen India's Act East Policy.

Source: [Forum IAS](#)

31. Correct Answer is (A)

- Statements 1 and 2 are correct. The International Energy Agency (IEA) publishes the annual World Energy Outlook report, containing analysis and projections on global energy trends. It acts as a key policy advisor to member countries, providing data-driven recommendations for secure, sustainable, and affordable energy systems.
- Statement 3 is incorrect. The International Energy Agency (IEA) is not a subsidiary of the United Nations (UN). The IEA was established in 1974 to ensure the security of oil supplies and is hosted at the OECD in Paris. It operates autonomously, with its own budget and governance structure.

Source: [Forum IAS](#)

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Economy

32. Correct Answer is (B)

- Statements 1 and 2 are correct. The CCI has powers similar to a court of law, including the ability to summon witnesses, collect evidence, and issue orders. It is primarily responsible for promoting and sustaining competition, protecting the interests of consumers, and ensuring freedom of trade in the Indian market.
- Statement 3 is incorrect. The CCI does not consider offering discounts and promotional offers to attract customers as an anti-competitive practice. Instead, it focuses on regulating anti-competitive agreements and abuse of dominant position by enterprises.

Source: [Forum IAS](#)

33. Correct Answer is (A)

- Statement 1 is correct. The Coal Mines Provident Fund Organization (CMPFO) operates as an autonomous body but functions under the overall supervision of the Ministry of Coal, Government of India.
- Statement 2 is incorrect. The primary responsibility of CMPFO lies in the administration of social security schemes for coal mine workers. These schemes include Provident Fund, Pension, and Deposit-Linked Insurance. It was established for administering Provident Fund and Pension schemes to ensure social security for coal sector workers.

Source: [Forum IAS](#)

34. Correct Answer is (A)

- Bilateral Investment Treaties (BITs) are agreements between two countries that protect the rights of investors from each country. They set rules for investments and handle disputes. India's model BITs are characterized by:
 - **Stricter Rules:** They emphasize protecting India's sovereign interests.
 - **Local Remedies Requirement:** Foreign investors must use local legal remedies for at least five years before seeking international arbitration.
 - **Exclusion of Taxation Measures:** Any taxation measures imposed by India are excluded from the BITs.
 - **Absence of MFN Clause:** The Most Favored Nation (MFN) clause is not included, which typically ensures equal treatment among investors.

Source: [Forum IAS](#)

35. Correct Answer is (C)

- Statement 1 is incorrect. Nano-DAP is not a genetically modified fertilizer designed to enhance crop yields by directly injecting it into plant cells. It is a unique liquid fertilizer product that contains nanoparticles of Diammonium Phosphate (DAP), which is a source of nitrogen and phosphorus.
- Statements 2 and 3 are correct. Nano-DAP can assist the government in lowering its fertilizer subsidy burden. It is more cost-effective compared to conventional DAP, which can contribute to reducing the government's subsidy burden. Nano-DAP can be combined with other nano-fertilizers like nano-urea to increase agricultural benefits. It is designed using nanotechnology for efficient nutrient delivery to plants, and it can be used in combination with other nano-fertilizers to enhance agricultural productivity.

Source: [Forum IAS](#)

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36. Correct Answer is (B)

- In the context of the Blue Economy, the term "blue carbon" refers to the carbon sequestration and storage potential of coastal and marine ecosystems. These ecosystems, including mangroves, seagrasses, salt marshes, and other types of coastal vegetation, have the ability to capture and store significant amounts of carbon dioxide from the atmosphere. This process helps mitigate climate change by reducing greenhouse gas emissions.

Source: [Forum IAS](#)

37. Correct Answer is (D)

- Statements 1, 2 and 3 are incorrect. Both the Annual Budget and the Interim Budget require the President's assent to come into effect. Both the Interim Budget and the Annual Budget require approval from both houses of Parliament. An Interim Budget is typically introduced to seek Parliament's approval for government expenditure for a short period until a new government is formed. The main purpose of an Interim Budget is not to outline long-term economic policies and reforms. That is usually the focus of the Annual Budget presented by the government after a general election.

Source: [Forum IAS](#)

38. Correct Answer is (B)

- Statement 1 is incorrect. The NBC refers to the maximum amount a government (in the context of states in India) can borrow in a financial year from all sources, including loans from financial institutions, market borrowings, and external loans. It also takes into account the government's repayment obligations for the same financial year.
- Statements 2 and 3 are correct. If a government consistently exceeds its Net Borrowing Ceiling, it may signal a lack of fiscal discipline and raise concerns about the government's ability to manage its finances responsibly. This could potentially lead to a downgrade in its credit rating, as credit rating agencies consider various factors, including debt levels and fiscal management, when assessing a government's creditworthiness. The Net Borrowing Ceiling can help maintain fiscal discipline by limiting a government's borrowing capacity. This encourages the government to prioritize expenditure and revenue generation to stay within its borrowing limits.

Source: [Forum IAS](#)

39. Correct Answer is (C)

- The body responsible for recommending the devolution of taxes from the central government to states is the Finance Commission. The Finance Commission is a constitutional body that makes recommendations to the President of India regarding the distribution of taxes between the Union and the states, and between states themselves.

Source: [Forum IAS](#)

40. Correct Answer is (C)

- Statements 1, 3 and 4 are correct. ASI is the primary source of industrial statistics in the country. It extends to the entire country. It covers all factories registered under Sections 2(m)(i) and 2(m)(ii) of the Factories Act, 1948. The survey also covers Bidi and cigar manufacturing establishments registered under the Bidi and Cigar Workers (Conditions of Employment) Act 1966. All electricity undertakings engaged in generation, transmission and distribution of electricity, not registered with the Central Electricity Authority (CEA) are also covered under ASI. It does not cover unorganised or unregistered or informal sector enterprises.

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- Statement 2 is incorrect. The survey is conducted by the Central Statistics Office (CSO) Industrial Statistics (IS) wing under Ministry of Statistics and Programme Implementation.

Source: [Forum IAS](#)

Environment

41. Correct Answer is (C)

- Statements 1 and 3 are correct. The Dusted Apollo (*Parnassius stenosemus*) is an extremely rare high-altitude butterfly known for its distinctive wing patterns and coloration, and it has been sighted for the first time in Himachal Pradesh. Apollos are highly valued butterflies in commercial trade and command high prices within the poaching industry. Most of the Apollo butterflies are endangered and urgently require conservation and protection measures.
- Statement 2 is incorrect. Some Apollo Butterfly species migrate, while most of them do not.

Source: [Forum IAS](#)

42. Correct Answer is (A)

- Statements 1 and 2 are correct. Lantana Camara is an invasive species in India. Introduced as an ornamental plant, it has aggressively spread, particularly in disturbed areas, impacting biodiversity. It's listed among India's "species of high concern." The invasion of Lantana camara heavily impacts the Nilgiri Biosphere Reserve in the Western Ghats, where it has spread rapidly and formed dense thickets, threatening the wildlife habitat, including the Asian elephant population. The plant is native to the American tropics.
- Statement 3 is incorrect. Lantana camara does not increase soil fertility. In fact, it has been reported to alter biodiversity, suppress native forest regeneration, reduce native plant species richness, and increase the risk of fire, ultimately threatening the biodiversity of the invaded areas.

Source: [Forum IAS](#)

43. Correct Answer is (A)

- Chlorofluorocarbons (CFCs) are primarily responsible for the depletion of the ozone layer. When released into the atmosphere, CFCs break down ozone molecules, leading to thinning of the ozone layer. This thinning allows more ultraviolet (UV) radiation from the sun to reach the Earth's surface, posing risks to human health and the environment.

Source: [Forum IAS](#)

44. Correct Answer is (A)

- Statements 1 and 2 are correct. The black-necked crane is a medium-sized crane in Asia that breeds on the Tibetan Plateau and remote parts of India and Bhutan. Both the sexes are almost of the same size, but male is slightly bigger than female. The high-altitude wetlands of the Tibetan plateau, Sichuan (China), and eastern Ladakh (India) are the main breeding ground of the species. However, the birds spend winter at lower altitudes. It is also found in Arunachal Pradesh's valleys- Sangti valley, Zemithang and Chug valley. The important habitats of Black-necked Crane have been notified as a Protected Areas. For ex- Changthang Sanctuary, Ladakh.
- Statement 3 is incorrect. Conservation status – IUCN Red List- Near Threatened (NT), CITES- Appendix I, Indian Wildlife (Protection) Act, 1972- Schedule I.

Source: [Forum IAS](#)

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45. Correct Answer is (C)

- Thrips parvispinus is a harmful insect pest known to inflict significant damage on various crops, including chili, papaya, beans, eggplant, and more. They feed on plant sap, leading to stunted growth, leaf curling, and yield losses. It originated from Southeast Asia and was first found in Florida in 2020. It is a polyphagous pest that causes damage to vegetable, ornamental, and fruit crops. It is now found in France, Greece, Hawaii, Mauritius, Reunion, Spain, Tanzania and the Netherlands, besides India. This species was first reported on Papaya from Bengaluru in 2015.

Source: [Forum IAS](#)

46. Correct Answer is (C)

- Statement 1 is incorrect. The Aldabra giant tortoise is distinct from other tortoise species due to its exceptionally long lifespan. It can live up to 150 years old. It is the world's second-largest land tortoise species, after the Galapagos giant tortoise.
- Statements 2, 3 and 4 are correct. These are endemic to the Aldabra Atoll in the Seychelles, an archipelago in the western Indian Ocean, approximately 930 miles east of Africa and northeast of Madagascar. These tortoises live on land and inhabit diverse environments such as scrub forests, mangrove swamps, and coastal dunes and beaches. Grasslands named "platins" harbour the largest populations of tortoises. They are listed Vulnerable in the IUCN Red Data List and Appendix II in CITES. They are dark gray to black with a strongly domed, thick shell. They play a significant role in maintaining the ecological balance of their habitat mosaic.

Source: [Forum IAS](#)

47. Correct Answer is (C)

- Environmental Impact Assessment (EIA) is a process of evaluating the likely environmental impacts of a proposed project or development, taking into account inter-related socio-economic, cultural and human-health impacts, both beneficial and adverse. Monitoring and enforcement in the Environmental Impact Assessment (EIA) process involve verifying compliance with environmental regulations and mitigation measures to ensure project adherence to prescribed environmental safeguards and minimize adverse impacts.

Source: [Forum IAS](#)

48. Correct Answer is (B)

- The Sepahijala Wildlife Sanctuary is located in the state of Tripura. It came into existence in 1972. It has moist deciduous forest. It has two natural lakes, namely Abasarika and Amrit Sagar. It is the habitat of different species of primates like Rhesus macaque, Pigtailed macaque, Capped langur, Spectacled monkey, Slow loris and several other wild animals like Leopard, Clouded leopard, Jungle fowl, Civets, Barking, Deer, Wild pig, etc. Clouded Leopard National Park, established in 2007, is a part of this wildlife sanctuary. Sepahijala Wildlife Sanctuary is known for its rich avian diversity.

Source: [Forum IAS](#)

49. Correct Answer is (A)

- Statements 1 and 2 are correct. Clouded Leopard is the state animal of Meghalaya. It is classified as Vulnerable under the IUCN Red List. It is placed under Schedule 1st of the Wildlife (protection) act of 1972. They got their name from the clouds like pattern on their whole body. Clouded leopards have a darker coat color which has smaller and darker cloud markings on them. The fur color includes yellow to brown, which makes them darker. Clouded leopards can hang upside down from

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branches of trees by making use of their short limbs, broader paws, and sharp nails. They have the longest tail among the cats.

- Statement 3 is incorrect. Clouded Leopards are commonly found tropical rain forests of Nepal, Bhutan, India, Myanmar, China. Southeast Asia is their main habitat.

Source: [Forum IAS](#)

Science & Technology

50. Correct Answer is (A)

- Cygnus X-1 is one of the first confirmed black hole systems in our galaxy that was discovered over four decades ago. Its distance from the earth is about 400 times of the distance between Earth and Sun. It is 20 times heavier than the Sun, and has a companion – a heavy supergiant star (40 times more massive than the Sun) in a binary system.

Source: [Forum IAS](#)

51. Correct Answer is (B)

- Statement 1 is incorrect. Wheat blast is not caused by a weather phenomenon causing sudden temperature fluctuations in wheat-growing regions. Instead, it is a fungal disease caused by the pathogen *Magnaporthe oryzae*. Wheat blast is a fungal disease that affects wheat production in tropical and subtropical regions. It spreads through infected seeds, crop residues, and spores that can travel long distances in the air. It causes progressive bleaching of the heads, lower yields, and poor seed quality. Stems and leaves are discoloured, with dark brown, eye-shaped lesions on leaves.
- Statement 2 is correct. Warm and humid conditions are highly favorable to the spread and severity of wheat blast. The fungus thrives in such environments.

Source: [Forum IAS](#)

52. Correct Answer is (C)

- X-ray polarimetry is a tool used to study the polarization of X-rays from various celestial objects, including black holes. It helps in understanding the physical nature and geometry of various classes of astrophysical sources, including the location of the source regions of X-ray radiation near black holes. Unlike normal X-ray measurements which measure only the energy or intensity of the radiations, polarisation characteristics of X-rays tells about the orientation of the oscillating electric field. This hold clues on the geometry and other properties of the black hole. The Imaging X-ray Polarimetry Explorer (IXPE) is NASA's first mission to study polarisation of X-rays from celestial objects.

Source: [Forum IAS](#)

53. Correct Answer is (B)

- The ergosphere is an oblate spheroid-shaped region surrounding a rotating black hole, also known as a Kerr black hole. In this region, the black hole's immense gravity causes the spacetime to rotate along with it. This phenomenon is known as the "frame-dragging" or "Lense-Thirring effect." Inside the ergosphere, it is impossible for any particle to remain stationary with respect to the outside universe; all particles are inevitably drawn into the rotation of the black hole. It is the region in between the event horizon and the stationary limit. Objects within the ergosphere are forced to rotate along with the black hole's spin due to the distortion of spacetime caused by its immense gravitational pull.

Source: [Forum IAS](#)

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54. Correct Answer is (B)

- Statement 1 is incorrect. Nuclear fission is the process of splitting the nucleus of an atom into two or more smaller nuclei to release a large amount of energy.
- Statement 2 is correct. A nuclear reactor produces power without any dependence on weather and other conditions. It generates electricity by using the heat produced during nuclear fission to boil water and produce pressurized steam, which then drives turbines to generate electricity. This makes nuclear power a reliable source of energy, as it is not affected by factors such as weather variations.

Source: [Forum IAS](#)

55. Correct Answer is (C)

- The primary objective of the Transiting Exoplanet Survey Satellite (TESS) is to discover new exoplanets using the transit method. TESS is a space telescope designed to search for exoplanets by monitoring the brightness of stars for periodic dips in light caused by planets passing in front of them, or transiting. It is a NASA mission dedicated to locating planets that orbit the brightest stars visible from Earth. It is a successor to NASA's Kepler space telescope, which discovered thousands of exoplanets over a decade following its launch in 2009. TESS discovers planets of various sizes and compositions, from small rocky ones to giant ones, demonstrating the galaxy's planet diversity. It employs the transit technique to identify planets.

Source: [Forum IAS](#)

56. Correct Answer is (C)

- Deep tech refers to advanced and disruptive technologies that have the potential to cause transformative change and provide solutions for the future. It is used to describe cutting-edge research in nanotechnology, biotechnology, material sciences, quantum technologies, semiconductors, artificial intelligence, data sciences, robotics, 3D printing, etc. Social media content optimization falls outside the scope of Deep Tech. Deep Tech usually involves complex scientific and engineering principles to address fundamental challenges.

Source: [Forum IAS](#)

57. Correct Answer is (B)

- Statement 1 is incorrect. CAR T-cell therapy is a form of immunotherapy and gene therapy, not radiation therapy. Radiation therapy utilizes high-energy rays to target and kill cancer cells. In CAR T-cell therapy, a patient's T-cells (a type of immune cell) are genetically modified to express chimeric antigen receptors that allow them to recognize and target specific cancer cells more effectively.
- Statement 2 is correct. This therapy is less demanding and has fewer side effects compared to traditional treatments like chemotherapy.

Source: [Forum IAS](#)

58. Correct Answer is (A)

- Statements 1 and 3 are incorrect. The objective of the SMART food grain storage system (SAFEETY) technology is to reduce post-harvest losses, improve food quality and safety, and enhance food security in the country. It also aims to improve the efficiency and safety of food grain storage by reducing storage losses, ensuring better preservation of grain quality, and enhancing the overall management of grain stocks. The SAFEETY system is a step towards achieving the goals of Digital India initiative. It aligns with the objectives of the Digital India initiative by incorporating advanced technologies such as RFID, automation, and real-time tracking to improve the efficiency, transparency, and accountability in food grain storage management.

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- Statement 2 is correct. The SAFEETY system uses RFID tags on grain bags to enable real-time tracking and monitoring of grain stocks. This helps in maintaining accurate inventory records, preventing pilferage, and ensuring better control over the movement of grain bags within the storage facility.

Source: [Forum IAS](#)

59. Correct Answer is (A)

- Statement 1 is correct. The Vaccine Safety Net is a global network of websites established by the World Health Organization (WHO) that provides reliable information on vaccine safety in various languages. They provide vaccine safety information in 43 languages.
- Statement 2 is incorrect. The objective of the Healthy Indian Project is to provide credible, evidence-based health information and fact-checking in multiple Indian languages, including information about vaccines.

Source: [Forum IAS](#)

60. Correct Answer is (D)

- Satellite-based toll collection system: It is a GPS based toll collection system. The National Highways Authority of India (NHAI) will implement this system. It will enable vehicles to move freely without the need to stop for toll payments. It will capture the vehicle's registration plate photo and debit the toll amount based on the actual distance traveled by the vehicle on the highway. Every vehicle in this GPS-based toll collection system will need an onboard unit (OBU) linked to a constellation of satellites. The OBU will also connect to a wallet for toll deductions. It will replace the existing radio frequency identification-based FASTag system. Currently, this GPS based toll collection system is in the trial phase.

Source: [Forum IAS](#)