

10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

[2nd Week] Aug 2024

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Art & Culture

Q.1) Consider the following:

1. Thadou
2. Paite
3. Hmar

In which one of the following regions is it possible to find all three tribes?

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

Q.2) Which one of the following is the correct order of precedence for the gallantry awards in India?

- a) Maha Vir Chakra, Kirti Chakra, Vir Chakra, Shaurya Chakra
- b) Kirti Chakra, Maha Vir Chakra, Shaurya Chakra, Vir Chakra
- c) Vir Chakra, Kirti Chakra, Maha Vir Chakra, Shaurya Chakra
- d) Kirti Chakra, Shaurya Chakra, Maha Vir Chakra, Vir Chakra

Modern Indian History

Q.3) With reference to the Quit India Movement, consider the following statements:

1. The Quit India Movement aimed to achieve immediate and complete independence from British rule, rejecting any compromise or delay.
2. The Jallianwala Bagh massacre was a major cause for the launch of the Quit India Movement.
3. The British government responded to the Quit India Movement by arresting major Congress leaders.
4. Sarojini Naidu is known for hoisting the Indian flag at the Gowalia Tank Maidan during the Quit India Movement.

Which of the statements given above are correct?

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

Geography

Q.4) Consider the following statements:

1. The mantle makes up more than 80% of the Earth's volume.
2. Inner core is responsible for generating Earth's magnetic field.
3. Oceanic crust is hotter than continental crust.
4. The reaction between seawater and mantle rocks on or near the seafloor releases hydrogen.

Which of the statements given above are correct?

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

Q.5) Which one of the following statements is correct regarding the geographical location of Diego Garcia Island?

- a) Diego Garcia is located in the South Atlantic Ocean.
- b) Diego Garcia is a part of the Chagos Archipelago in the Indian Ocean.
- c) Diego Garcia is situated west of the Maldives in the Arabian Sea.
- d) Diego Garcia is an island in the Pacific Ocean, near the Philippines.

Q.6) With reference to the country Timor-Leste, consider the following statements:

1. It is a country in Southeast Asia.
2. It is a landlocked country.
3. It is a member country of the Association of Southeast Asian Nations (ASEAN).

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

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

Q.7) Consider the following statements:

1. Kharif crops are grown during the dry season.
2. Temperature is the primary factor that determines the sowing time of kharif crops.
3. Rice is a major kharif crop grown in the deltaic regions of India.

How many of the statements given above are correct?

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

Q.8) Consider the following:

1. Gravitational Pull of the Moon
2. Melting Polar Ice
3. Movement of Air Currents
4. Tectonic Plate Movements
5. Deforestation

How many of the above factors are primarily responsible for slowing down earth's rotation?

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

Polity

Q.9) With reference to the Speaker of the Lok Sabha, consider the following statements:

1. The Speaker protects the rights and privileges of the members of the House.
2. In the event of a tie during a vote in the House, the Speaker has the authority to adjourn the session.
3. The work and conduct of the Speaker cannot be discussed or criticized in the Lok Sabha except on a substantive motion.
4. The Speaker is the final interpreter of the Constitution within the House.

How many of the statements given above are correct?

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

Q.10) Consider the following statements:

1. The Chairman of Rajya Sabha can be removed from office by a resolution passed by an effective majority in the Rajya Sabha and agreed to by a simple majority in the Lok Sabha.
2. When a resolution for the removal of the Chairman of Rajya Sabha is under consideration, the Chairman shall preside over the sitting but shall not be entitled to vote.

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.11) Consider the following pairs:

Parliamentary Procedures-----Purpose

1. Censure Motion----- Ensures members can perform their duties effectively
2. Adjourn sine die----- House is suspended indefinitely
3. Privilege Motion----- Expresses disapproval of government policies

How many of the above pairs are correctly matched?

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

Q.12) Consider the following statements:

1. India is a signatory to the 1951 Refugee Convention.
2. India lacks specific domestic laws addressing the needs of refugees.
3. Refugees have the inherent right to life under Article 21 of the Indian Constitution.

How many of the statements given above are correct?

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

Q.13) Consider the following statements:

1. A population Census forms the basis for generating indicators for Sustainable Development Goals (SDGs).
2. Ministry of Statistics and Programme Implementation is responsible for conducting the decennial Census in India.
3. Caste Census provides insights into the socio-economic conditions and needs of different caste groups.

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

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

Q.14) Consider the following statements:

1. Under the Prevention of Money Laundering Act (PMLA), political parties are defined as companies.
2. In a parliamentary democracy, the cabinet, led by the Prime Minister or Chief Minister, is the ultimate authority on policy-making.
3. The judiciary does not evaluate the correctness or motives behind a policy made by the cabinet.

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

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

Q.15) With reference to the National Institutional Ranking Framework (NIRF), consider the following statements:

1. It is a ranking methodology adopted by the Indian government to rank institutions of higher education in India.
2. Skill Development Institutes, Online Universities, and Research Centers are new categories introduced in the NIRF 2024 rankings.
3. International Student Exchange Programs is one of the broad parameters considered in the NIRF rankings.

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

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

Q.16) Consider the following statements:

1. The right to fair and speedy trial is implicit in the right to life under Article 21.
2. The right to access public services is an example of individual liberty.

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.17) Consider the following pairs:

Terms-----Features

1. Parole----- A system of releasing a prisoner without suspending the sentence and the period of release is treated as remission of the sentence
2. Probation----- An offender is allowed to serve their sentence in the community under supervision instead of going to prison
3. Furlough----- Temporary release of an inmate from prison for a specified period

How many of the above pairs are correctly matched?

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

Acts & Policies

Q.18) With reference to the Citizenship (Amendment) Act, 2019, consider the following statements:

1. Tribal areas of Assam, Meghalaya, Mizoram, and Tripura are exempted from the provisions of the Citizenship (Amendment) Act, 2019.
2. Applicants seeking citizenship under the CAA can give any document issued by the State or Union government or any quasi-judicial authority in India.
3. The Act states that all legal proceedings against eligible individuals regarding illegal migration or citizenship will be transferred to special courts.

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

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

Q.19) Consider the following statements regarding Nandini Sahakar Scheme:

1. The scheme aims to improve socio-economic status of women and supports entrepreneurial dynamism of women through women cooperatives.
2. National Cooperative Development Corporation (NCDC) is responsible for implementing the Nandini Sahakar Scheme.

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.20) With reference to the Clean Plant Programme (CPP), consider the following statements:

1. It aims to reduce the cost of production for horticultural crops.
2. Food Corporation of India (FCI) is responsible for implementing the Clean Plant Programme (CPP) in 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.21) Consider the following statements regarding the Pradhan Mantri JI-VAN Yojana:

1. The scheme focuses on promoting second-generation (2G) ethanol projects using lignocellulosic biomass and other renewable feedstocks.
2. The scheme is backed by Multilateral Development Banks (MDBs) to help make projects that are economically feasible.
3. It aligns with India's goal to achieve net-zero greenhouse gas emissions by 2070.
4. Centre for High Technology (CHT) a technical body under the Ministry of Petroleum and Natural Gas, is responsible for implementing the scheme.

Which of the statements given above are correct?

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

Q.22) Consider the following statements regarding the Waqf (Amendment) Bill, 2024:

1. The Bill states that any government property identified or declared as waqf property, before or after the enactment of this Act, will not be recognized as waqf property.
2. It empowers the Central Government to audit any waqf at any time, using auditors appointed by the Comptroller and Auditor-General of India or designated officers.
3. It assigns the responsibility of surveying waqf properties and determining their validity to waqf tribunals.

How many of the statements given above are correct?

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

Q.23) Consider the following statements regarding the Ayushman Bharat Pradhan Mantri-Jan Arogya Yojana (AB PM-JAY):

1. National Health Authority (NHA) is responsible for implementing the AB PM-JAY at the national level.
2. It provides health insurance coverage to all Indians regardless of their income or social status.
3. It is the world's largest government-funded health assurance scheme.

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.24) 'Model Solar Village' under the PM-Surya Ghar: Muft Bijli Yojana refers to:

- a) A village that has completely replaced fossil fuels with solar energy for all its energy needs.
- b) A village with a fully solar-powered electricity grid supplying power to all households.
- c) A village where every household has installed a rooftop solar panel for self-consumption.
- d) A village that has successfully reduced its carbon footprint to zero through solar energy adoption.

Q.25) With reference to the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM) scheme, consider the following statements:

1. It aims to enhance the use of solar energy for irrigation and reduce farmers' dependence on diesel and kerosene.
2. Risk-free income through the sale of surplus solar energy is a benefit of the scheme for farmers.
3. The purpose of the Feeder Level Solarisation (FLS) component of the PM-KUSUM scheme is to install standalone solar-powered agriculture pumps.
4. Installation of new solar pumps is not allowed in dark zones/areas notified by the Central Ground Water Board (CGWB).

Which of the statements given above are correct?

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

International Relations/Organizations

Q.26) Consider the following statements:

1. India and New Zealand are both members of International Solar Alliance (ISA).
2. Pharmaceuticals, precious metals and jewellery, textiles and apparel are major exports from India to New Zealand.
3. India and New Zealand have signed a customs cooperation agreement to simplify and strengthen trade between the two countries by making customs procedures easier.

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.27) Consider the following statements:

1. The International North-South Transport Corridor (INSTC) is a part of India's efforts to improve connectivity under the "Neighbourhood First" policy.
2. SAGAR (Security and Growth for All in the Region) initiative is integrated with Indian maritime initiatives such as the Act East Policy and Project Sagarmala.

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:

1. Freedom of association and the right to collective bargaining
2. Equal pay for equal work
3. Elimination of forced labour
4. Abolition of child labour

Which of the above are fundamental principles and rights under the International Labour Organization's (ILO's) project 'Promoting Fundamental Principles and Rights at Work (FPRW)'?

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

Q.29) Consider the following statements:

1. Bangladesh is the largest South Asian Association for Regional Cooperation (SAARC) member country in terms of land area.
2. International trade is one of the areas of cooperation in SAARC.
3. India is the largest economy in the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).

How many of the statements given above are correct?

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

Economy

Q.30) In which one of the following ways does an unchanged repo rate impact the government's fiscal policy?

- a) It forces the government to increase taxes
- b) It allows the government to maintain current borrowing costs
- c) It requires the government to immediately reduce spending
- d) It does not affect the fiscal policy

Q.31) Which of the following statement(s) is/are correct?

1. Headline Inflation includes all items in the consumer price index (CPI).
2. High Food inflation directly influences core inflation.

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.32) Consider the following statements:

1. Headline inflation is a measure of the total inflation within an economy.
2. Headline inflation is less volatile than core inflation.
3. The value money falls with the increase in headline inflation.

How many of the statements given above are correct?

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

Q.33) Which one of the following factors is most likely to cause the Indian Rupee to appreciate against the US Dollar?

- a) A decrease in the Reserve Bank of India's (RBI) benchmark interest rate.
- b) An increase in foreign portfolio investment (FPI) inflows into Indian equity markets.
- c) A significant increase in India's crude oil imports.
- d) A rise in US Federal Reserve interest rates.

Q.34) In the context of financial markets, short selling refers to:

- a) Buying a security with the expectation that its price will increase.
- b) Lending money to a company to finance its operations.
- c) Selling a borrowed security with the expectation that its price will decrease.
- d) Purchasing a government bond with a fixed interest rate.

Q.35) Consider the following statements:

Statement-I: India has a poor ranking in Human Development Index (HDI).

Statement-II: India's Gross Domestic Product (GDP) growth is low.

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.36) Which one of the following statements correctly explains the 'Stakeholder Capitalism'?

- a) It is a form of government intervention where the state becomes the primary stakeholder in all businesses.
- b) It is a system where corporations are oriented to serve the interests of all their stakeholders, including customers, suppliers, employees, shareholders, and local communities.
- c) It is a model where companies prioritize government regulations over business interests to ensure compliance.
- d) It is a government policy that regulates businesses to ensure they prioritize profit over all other concerns.

Environment

Q.37) Consider the following statements:

1. Fly ash is mainly composed of oxides of silicon, aluminium, iron, calcium, and magnesium.
2. Fly ash is primarily produced as a byproduct of automobile exhaust.
3. Using fly ash in concrete reduces the amount of cement needed, which in turn lowers CO₂ emissions associated with cement production.
4. Improper disposal of fly ash can lead to ozone layer depletion due to the dispersing of harmful gases into the atmosphere.

How many of the statements given above are correct?

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

Q.38) Consider the following statements:

1. Environment Protection Act, 1986 governs the approval process for non-forestry activities in wildlife sanctuaries in India.
2. Any non-forestry activity on forest land requires approval from the Central government.

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.39) Which one of the following examples is closely related to the term 'Just Transition'?

- a) A company transitioning to renewable energy without any job losses or reskilling programs for its workers.
- b) The establishment of a new coal mine with promises of future investments in renewable energy.
- c) Establishing a wildlife conservation program that restricts local communities from accessing forest resources without providing alternative livelihoods.
- d) A coal-dependent region developing a comprehensive plan involving government, industry, and labour unions to transition to renewable energy.

Q.40) Consider the following:

1. World Wildlife Fund (WWF)
2. United Nations Environment Programme (UNEP)
3. Wildlife Conservation Society (WCS)
4. International Union for Conservation of Nature (IUCN)

How many of the above international organizations are actively involved in addressing Human-Animal Conflict?

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

Q.41) Consider the following:

1. Maize
2. Broken rice
3. Wasted fruits
4. Bamboo
5. Mustard seeds

How many of the above can be used for ethanol production?

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

Q.42) Consider the following statements:

1. Shendurney Wildlife Sanctuary is a protected area located in the Western Ghats of Kerala.
2. Chenthuruni River flows through the Shendurney Wildlife Sanctuary.

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.43) Consider the following statements:

1. Ballast water carries invasive species into other countries that destroy ecosystems.
2. The Ballast Water Management (BWM) Convention helps to prevent the spread of potentially harmful aquatic organisms and pathogens in ships' ballast water.
3. India is one of the signatories of Ballast Water Management (BWM) Convention.

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.44) Consider the following pairs:

Ramsar Sites-----States

1. Nanjarayan Bird Sanctuary-----Tamil Nadu
2. Kazhuveli Bird Sanctuary-----Kerala
3. Tawa Reservoir----- Madhya Pradesh

Which of the above pairs are correctly matched?

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

Q.45) Corporate Average Fuel Economy (CAFE) norms is used in the context of:

- a) Setting the maximum allowable weight for commercial vehicles.
- b) Setting fuel efficiency standards for vehicles to reduce CO2 emissions.
- c) Determining the maximum allowable levels of pollutants in industrial wastewater discharged by manufacturing facilities.
- d) Establishing guidelines for the production and use of alternative fuels.

Science & Technology

Q.46) Consider the following statements:

1. The Drugs Controller General of India (DCGI) grants approval for clinical trials of drugs in India.
2. Certain drugs that have been approved in the U.S. are exempted from undergoing additional clinical trials in India.
3. The Central Government may waive local clinical trials for new drugs in India if the drug is a generic version of an existing drug.

How many of the statements given above are correct?

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

Q.47) With reference to deoxyribonucleic acid (DNA), consider the following statements:

1. It carries all the information needed for the body's structure, appearance, and functions.
2. It is present in every cell of the human body.
3. The amount of DNA can vary between different biological sources.
4. Short Sequence Arrays (SSAs) helps to distinguish one person's DNA from another's.

How many of the statements given above are correct?

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

Q.48) 'BPAL regimen' is a type of treatment used for:

- a) Viral infections
- b) Tuberculosis
- c) Diabetes management
- d) Bacterial infections

Q.49) Which one of the following statements is correct regarding the Nitrogen Use Efficiency (NUE)?

- a) It is the measure of how much nitrogen is absorbed by the soil from fertilizers.
- b) High NUE always results in the highest crop yields.
- c) Leguminous plants have lower NUE compared to non-leguminous plants.
- d) It is the ratio of nitrogen absorbed by the plant to the total nitrogen applied to the soil.

Q.50) With reference to the military exercise Udara Shakti, consider the following statements:

1. It is a joint military exercise between India and Malaysia.
2. F-16 Fighting Falcon aircraft was used in the exercise.
3. The Udara Shakti 2024 exercise was conducted at Chennai, India.

How many of the statements given above are correct?

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

Q.51) Which one of the following finds applications of 'Bioinformatics'?

- a) Developing new synthetic fertilizers.
- b) Analyzing genetic sequences to understand disease mechanisms.
- c) Designing architectural structures.
- d) Storing physical samples in biological laboratories.

Q.52) Which one of the following best explain the term 'Deepfakes'?

- a) A type of deep learning algorithm used for image recognition.
- b) A technique for creating fake audio or video content.
- c) A form of encryption used to protect sensitive data.
- d) A new programming language for developing artificial intelligence applications.

Q.53) Consider the following statements:

1. India has become the fourth country to reach moon's southern polar region.
2. India has established Indian National Satellite System (INSAT) for resource management and disaster monitoring.

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.54) The primary purpose of the Defence Research and Development Organisation's (DRDO's) Long Range Glide Bomb (LRGB) 'GAURAV' is to:

- a) Provide close air support for ground troops
- b) Accurately strike distant targets while minimizing risk to the launching aircraft
- c) Intercept and destroy enemy aircraft
- d) Conduct electronic warfare and jamming operations

Q.55) Consider the following statements:

Statement-I: Anusandhan National Research Foundation (ANRF) will be operationalised for basic research and prototype development.

Statement-II: The Indian government is interested in supporting research that can be turned into marketable products.

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.56) With reference to the National List of Essential Medicines (NLEM), consider the following statements:

- 1. The primary purpose of NLEM is to promote the export of Indian pharmaceuticals ensuring that they are available at affordable costs and with assured quality.
- 2. National Pharmaceutical Pricing Authority (NPPA) is responsible for capping the prices of medicines listed in the NLEM.

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.57) Consider the following statements:

- 1. Space weather refers to the conditions and phenomena in space that are influenced by the Sun's activity.
- 2. Supergranular cells are a pattern of convection cells found on the Sun's photosphere.
- 3. The solar cycle refers to the changes in the Sun's temperature after the solar minimum.

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 mpox, consider the following statements:

- 1. It causes flu-like symptoms and pus-filled lesions on the body.
- 2. Mpox virus is primarily transmitted through contaminated food.

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.59) How many of the following statements are correct regarding the National Pest Surveillance System (NPSS)?

1. It aims to provide timely and precise pest management advisories to farmers.
2. The role of Artificial intelligence (AI) and Machine Learning (ML) in the NPSS is to detect crop issues and provide timely information to farmers.
3. 'Farmer's Friend' is the name of the AI-powered chatbot developed by the Ministry of Agriculture & Farmers Welfare to assist farmers.

Select the correct answer using the codes given below:

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

Q.60) With reference to the bacterium Wolbachia, which of the following statement(s) is/are correct?

1. They do not harm humans or animals.
2. Wolbachia is introduced into the Aedes mosquitoes through the process of genetic engineering.

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

Answer Key

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

Answers & Explanations

Art & Culture

1. Correct Answer is (A)
 - The Thadou, Paite, and Hmar communities are all indigenous tribes located in Manipur, India. These tribes are part of the ethnic landscape of Manipur, where they have historically settled and continue to reside.

Source: [The Hindu](#)

2. **Correct Answer is (A)**

- The correct order of precedence for the gallantry awards is: Param Vir Chakra, Ashoka Chakra, Maha Vir Chakra, Kirti Chakra, Vir Chakra, Shaurya Chakra. Gallantry awards in India are

prestigious honours given to individuals, both military and civilian, who display exceptional bravery and self-sacrifice. Gallantry awards are announced twice a year—on Republic Day (January 26) and Independence Day (August 15). These awards are open to all ranks of the Army, Navy, and Air Force, as well as personnel from other lawfully constituted forces and civilians. Awards can be given posthumously and are recognized with a medal and ribbon.

Source: [AIR](#)

Modern Indian History

3. Correct Answer is (B)

- Statements 1 and 3 are correct. The Quit India Movement, launched by Mahatma Gandhi on 8 August 1942, demanded an immediate end to British rule in India, as highlighted by the "Do or Die" slogan. The British government arrested major Congress leaders, including Gandhi, Nehru, and Patel, the day after the movement was launched.
- Statements 2 and 4 are incorrect. The immediate cause for the Quit India Movement was the failure of the Cripps Mission and the hardships caused during World War II. Aruna Asaf Ali is known for hoisting the Indian flag at the Gowalia Tank Maidan during the Quit India Movement.

Source: [AIR](#)

Geography

4. Correct Answer is (C)

- Statements 1 and 4 are correct. The mantle, which lies between the Earth's crust and core, accounts for about 84% of Earth's volume. The reaction between seawater and mantle rocks on or near the seafloor releases hydrogen, which in turn forms compounds such as methane, which underpin microbial life.
- Statements 2 and 3 are incorrect. The Earth's magnetic field is generated by the outer core. The outer core consists of molten iron and nickel, and its convection currents create the magnetic field. The oceanic crust is generally denser but not hotter than the continental crust. It is generally understood that the oceanic crust is not necessarily hotter than the continental crust. Instead, the oceanic crust is denser and thinner compared to the continental crust.

Source: [DD News](#)

5. Correct Answer is (B)

- Diego Garcia is a coral atoll and the largest of the 60 small islands that make up the Chagos Archipelago, located in the central Indian Ocean. It is known for its strategic military significance. The island belongs to Mauritius, is controlled by the United Kingdom, and is occupied by the United States. China also has an interest in the island. The island is close to India and plays a crucial role in U.S. military operations, including surveillance and regional security, particularly to counter China's ambitions in the Indo-Pacific region.

Source: [DD News](#)

6. Correct Answer is (A)

- Statement 1 is correct. Timor-Leste, also known as East Timor, is a country located in Southeast Asia. It occupies the eastern half of the island of Timor, along with the exclave of Oecusse on the northwestern part of the island, and the smaller islands of Atauro and Jaco. It became fully sovereign on May 20, 2002.
- Statements 2 and 3 are incorrect. Timor-Leste is not landlocked; it has a coastline along the Timor Sea. It shares land border with Indonesia. Timor-Leste is not a full member of ASEAN. It has been granted observer status and received in-principle approval for membership, but it is still in the process of becoming a full member.

Source: [AIR](#)

7. Correct Answer is (A)

- Statements 1 and 2 are incorrect. Kharif crops, also known as monsoon crops, are grown during the rainy season, typically from June to October, when they benefit from the monsoon rains. The primary factor for sowing Kharif crops is the onset of the monsoon rains, as these crops rely heavily on rainfall for growth.
- Statement 3 is correct. Rice is a major Kharif crop in India and is predominantly grown in rain-fed areas, including deltaic regions, which receive substantial rainfall during the monsoon season.

Source: [AIR](#)

8. Correct Answer is (B)

- **Gravitational pull of the Moon:** The Moon's gravity creates a tidal bulge on Earth, and the disparity between the bulge's position and the Moon's pull creates a torque that slows down Earth's rotation over billions of years. This process, known as tidal braking, adds about 2.3 milliseconds to the length of a day each century.
- **Movement of air currents:** As air currents push against mountains and pull on Earth's surface through friction, they change Earth's rotation rate slightly. For example, during El Niño years, the Earth spins slightly slower due to the way the winds shift.
- **Melting Polar Ice:** As glaciers melt and sea levels rise, relatively more mass flows from near the poles to closer to Earth's equator. This redistribution of mass slows down Earth's rotation and gradually lengthens our days.
- **Tectonic Plate Movements:** While tectonic activity can cause minor changes in Earth's rotation, such as speeding it up in some cases (e.g., due to earthquakes), it is not a primary factor in the long-term slowing of Earth's rotation.
- **Deforestation:** Deforestation impacts the environment and climate but does not significantly alter the planet's rotational dynamics.

Source: [The Hindu](#)

Polity

9. Correct Answer is (C)

- Statements 1, 3 and 4 are correct. The Speaker is responsible for safeguarding the rights and privileges of the members of the Lok Sabha, ensuring that parliamentary proceedings are conducted smoothly and fairly. The work and conduct of the Speaker cannot be discussed or criticized in the Lok Sabha except on a substantive motion, which is intended to safeguard the independence and impartiality of the office. The Speaker is the final interpreter of the provisions of the Constitution, the Rules of Procedure, and the Conduct of Business in the Lok Sabha.
- Statement 2 is incorrect. In the event of a tie during a vote in the House, the Speaker does not adjourn the session but instead exercises a casting vote to break the deadlock.

Source: [The Hindu](#)

10. Correct Answer is (A)

- Statement 1 is correct. According to Article 67(b) of the Indian Constitution, the Vice-President, who is the ex-officio Chairman of the Rajya Sabha, can be removed from office by a resolution passed by an effective majority of all the then members of the Rajya Sabha and agreed to by the Lok Sabha with a simple majority.
- Statement 2 is incorrect. When a resolution for the removal of the Vice-President (Chairman of the Rajya Sabha) is under consideration, the Chairman does not preside over the sitting. Instead, the Deputy Chairman or any other member appointed by the Rajya Sabha presides over the session.

Source: [The Hindu](#)

11. Correct Answer is (A)

- Only 2 is correctly matched.
- A censure motion is a formal statement of disapproval against a government or a specific policy, typically moved by the opposition. It is used to criticize the government or its policies.
- Adjourn sine die means to adjourn a meeting without setting a date for resumption, effectively suspending the session indefinitely.
- A privilege motion is moved when a member feels that there has been a breach of parliamentary privilege by another member or minister.

Source: [The Hindu](#)

12. Correct Answer is (B)

- Statement 1 is incorrect. India is not a party to the 1951 Refugee Convention or its 1967 Protocol.
- Statements 2 and 3 are correct. India does not have specific legislation to address the problem of refugees, despite their increasing inflow. This absence of legal frameworks poses significant challenges for the protection and inclusion of refugees, especially those with disabilities. The

Supreme Court of India has consistently held that the fundamental right to life under Article 21 of the Indian Constitution applies to all persons, including refugees.

Source: [The Hindu](#)

13. Correct Answer is (A)

- Statements 1 and 3 are correct. The population census is a critical source of data used to generate indicators for the SDGs. The Ministry of Statistics and Programme Implementation (MoSPI) is involved in monitoring and publishing various statistical indicators that align with the SDGs, making the Census data fundamental to these efforts. A caste Census can help provide insights into the socio-economic conditions and needs of different caste groups, aiding in the formulation of targeted policies to address social inequality and uplift marginalized communities.
- Statement 2 is incorrect. The Ministry of Home Affairs, specifically the Office of the Registrar General and Census Commissioner, is responsible for conducting the decennial Census in India.

Source: [The Hindu](#)

14. Correct Answer is (C)

- Statement 1 is incorrect. Political parties are not defined as companies under the PMLA. However, the PMLA can apply to political parties under certain conditions, as they can be considered an "association of individuals" under Section 70, which deals with offenses by companies.
- Statements 2 and 3 are correct. In a parliamentary democracy, the cabinet, headed by the Prime Minister or Chief Minister, is the highest decision-making body responsible for policy-making. The judiciary does not assess the correctness or motives of policies made by the cabinet, as policy decisions are considered the prerogative of the executive branch.

Source: [The Hindu](#)

15. Correct Answer is (A)

- Statement 1 is correct. The National Institutional Ranking Framework (NIRF) is a methodology adopted by the Indian government to rank higher education institutions in India.
- Statements 2 and 3 are incorrect. The new categories introduced in the NIRF 2024 rankings are State Public Universities, Skill Universities, and Open Universities. The broad parameters considered in the NIRF rankings include teaching, learning, resources, graduation outcomes, research, perception, outreach, and inclusivity, but not International Student Exchange Programs.

Source: [The Hindu](#)

16. Correct Answer is (A)

- Statement 1 is correct. The right to a fair and speedy trial is implicit in the right to life under Article 21 of the Indian Constitution. This right ensures that legal proceedings are conducted without unreasonable delays, which is essential to uphold the principles of justice. The Supreme Court has consistently recognized that a fair and speedy trial is a fundamental aspect of the right to life and personal liberty.
- Statement 2 is incorrect. The right to access public services is more related to social and economic rights rather than individual liberty as defined under Article 21, which focuses on life and personal liberty.

Source: [The Hindu](#)

17. Correct Answer is (B)

- **Parole:** Parole is a system of releasing a prisoner before the completion of their sentence, with the release being conditional. The period of release is not treated as a remission of the sentence; instead, the individual is still serving their sentence but under supervision in the community. The release is conditional, meaning the parolee must adhere to specific terms and conditions, such as regular check-ins with a parole officer and possibly residing in a halfway house. Failure to comply can result in returning to prison.
- **Probation:** Probation allows an offender to serve their sentence in the community under supervision instead of going to prison. It is typically ordered by a court and involves adhering to specific conditions. Unlike parole, probation is a court-ordered period of supervision in the community, typically instead of serving time in prison. It involves conditions set by the court, and probationers must report to a probation officer. It can also be part of a split sentence, where the offender serves time in jail before being released on probation.

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- **Furlough:** Furlough refers to the temporary release of an inmate from prison for a specified period, often for reasons such as family visits or medical treatment. It does not reduce the overall sentence and is usually granted for specific reasons, such as attending a family event or medical treatment.

Source: [The Hindu](#)

Acts & Policies

18. Correct Answer is (A)

- Statements 1 and 2 are correct. The CAA does not apply to the tribal areas of Assam, Meghalaya, Mizoram, and Tripura as these areas are protected under the Sixth Schedule of the Constitution and the Inner Line Permit system. The rules have been amended to allow applicants to submit documents issued by the State or Union government or any quasi-judicial authority in India to establish their roots.
- Statement 3 is incorrect. The Act does not mention transferring legal proceedings to special courts. Instead, it states that any pending proceedings against eligible individuals regarding illegal migration or citizenship will stand abated (i.e., will be nullified) upon the conferment of citizenship.

Source: [The Hindu](#)

19. Correct Answer is (C)

- Statements 1 and 2 are correct. The Nandini Sahakar Scheme is a comprehensive initiative launched by the National Cooperative Development Corporation (NCDC) to support women cooperatives in India. It is designed to improve the socio-economic status of women by supporting their entrepreneurial ventures through cooperatives. It provides a framework for financial assistance, project formulation, hand-holding, and capacity development. There is no cap on the financial assistance provided to women cooperatives. The assistance can cover infrastructure, margin money, and working capital. The scheme is open to cooperatives registered under any State or Central Act with at least 50% women as primary members. The scheme aligns with the principles of Atmanirbhar Bharat (self-reliant India).

Source: [Forum IAS](#)

20. Correct Answer is (D)

- Statements 1 and 2 are incorrect. The primary objective of the Clean Plant Programme is to provide access to virus-free, high-quality planting materials, which can lead to improved crop yields, better quality produce, and enhanced income opportunities for farmers. The focus is on enhancing productivity and quality rather than directly reducing the cost of production. The Clean Plant Programme is implemented by the National Horticulture Board (NHB) in association with the Indian Council of Agricultural Research (ICAR), under the Ministry of Agriculture and Farmers Welfare. It falls under the Mission for Integrated Development of Horticulture (MIDH). The programme aligns with the Mission LiFE and One Health initiatives, promoting sustainable and eco-friendly agricultural practices. Clean Plant Centres (CPCs), Certification and Legal Framework, and Enhanced Infrastructure are its key components.

Source: [The Hindu](#)

21. Correct Answer is (D)

- Statements 1, 3 and 4 are correct. The Pradhan Mantri JI-VAN Yojana aims to support the development of 2G ethanol projects using lignocellulosic biomass and other renewable feedstocks. The scheme aligns with India's goal to achieve net-zero greenhouse gas emissions by 2070 and supports the Make in India initiative. The Centre for High Technology (CHT) is the implementation agency for the Pradhan Mantri JI-VAN Yojana. The Pradhan Mantri JI-VAN Yojana has been extended for five more years, now running until 2028-29. The scheme's scope has been broadened to include biofuels made from various sources like agricultural leftovers, forestry waste, industrial by-products, and algae. The updated scheme now includes "bolt-on" and "brownfield" projects. This means existing facilities can be upgraded or modified to improve their operations and efficiency.
- Statement 2 is incorrect. The scheme is supported by the Indian government through Viability Gap Funding (VGF).

Source: [DD News](#)

22. Correct Answer is (B)

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- Statements 1 and 2 are correct. The Bill specifies that government properties identified or declared as waqf, before or after the enactment, will not be considered waqf properties. The Bill gives the Central Government the authority to audit waqf properties at any time using auditors appointed by the Comptroller and Auditor-General of India or designated officers.
- Statement 3 is incorrect. The Bill shifts the responsibility of surveying waqf properties from survey commissioners to district collectors. The district collectors are also responsible for determining the validity of waqf properties.

Source: [The Hindu](#)

23. Correct Answer is (C)

- Statements 1 and 3 are correct. The National Health Authority (NHA) is responsible for implementing the Ayushman Bharat Pradhan Mantri-Jan Arogya Yojana at the national level. AB PM-JAY is recognized as the world's largest government-funded health assurance scheme, providing coverage to over 50 crore (500 million) people.
- Statement 2 is incorrect. AB PM-JAY specifically targets the bottom 40% of the population, focusing on poor and vulnerable families based on criteria from the Socio-Economic Caste Census 2011, and does not provide coverage to all Indians regardless of income or social status. AB PM-JAY aims to provide health cover of ₹5 lakh per family per year for secondary and tertiary care hospitalisation to approximately 55 crore beneficiaries corresponding to 12.34 crore families constituting the bottom 40% of the population.

Source: [The Hindu](#)

24. Correct Answer is (B)

- The "Model Solar Village" under the PM-Surya Ghar: Muft Bijli Yojana refers to a village that has fully transitioned to solar power for meeting its energy needs, thus becoming self-reliant in energy. This initiative is part of a broader government scheme aiming to promote solar energy adoption across rural areas in India. Each district will have one designated Model Solar Village, selected based on its ability to implement solar energy solutions, with the goal of setting a sustainable example for other villages.

Source: [AIR](#)

25. Correct Answer is (C)

- Statements 1, 2 and 4 are correct. The PM-KUSUM scheme is designed to replace high-cost diesel pumps with solar energy, thus reducing farmers' reliance on diesel and providing a more reliable power source for irrigation. Farmers can sell surplus solar power generated under the scheme to distribution companies (DISCOMs), providing them with an additional income stream. The installation of new solar pumps is not permitted in dark zones, which are areas with depleted groundwater levels as notified by the CGWB.
- Statement 3 is incorrect. The Feeder Level Solarisation (FLS) component, which is part of Component-C of the PM-KUSUM scheme, is actually aimed at solarizing grid-connected agricultural pumps at the feeder level. This involves installing solar power plants to provide daytime reliable solar power to entire feeders that serve agricultural pumps.

Source: [The Hindu](#)

International Relations/Organizations

26. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. New Zealand has joined the International Solar Alliance, making both India and New Zealand members. Pharmaceuticals, precious metals and gems, textiles, and apparel are among the main exports from India to New Zealand. India and New Zealand have signed a customs cooperation agreement to facilitate and strengthen trade between the two countries.

Source: [AIR](#)

27. Correct Answer is (B)

- Statement 1 is incorrect. The International North-South Transport Corridor (INSTC) is a multi-modal transportation network that aims to enhance connectivity between India, Iran, Russia, and other countries in Central Asia and Europe. It primarily focuses on connecting India with Central Asia and Europe rather than its immediate neighbours in South Asia. The "Neighbourhood First" policy is more focused on enhancing relations and connectivity with India's immediate neighbours.

in South Asia, such as Bangladesh, Nepal, Bhutan, and Sri Lanka. Moreover, the Kaladan Multi-Modal Transit Transport Project is an initiative aimed at enhancing connectivity between India and its neighbours, particularly Myanmar.

- Statement 2 is correct. The SAGAR initiative is integrated with other Indian maritime initiatives. It focuses on enhancing maritime security and fostering economic growth in the Indian Ocean region. SAGAR is linked with initiatives like the Act East Policy, which aims to strengthen ties with Southeast Asian countries, and Project Sagarmala, which focuses on port development and modernization in India. These initiatives collectively enhance India's maritime capabilities and regional influence.

Source: [The Hindu](#)

28. Correct Answer is (C)

- Promoting Fundamental Principles and Rights at Work (FPRW) aims to promote effective recognition of freedom of association and the right to collective bargaining, elimination of child labour, abolition of forced labour, elimination of all forms of discrimination, and the promotion of a safe and healthy working environment. The fundamental principles and rights at work convention (of the ILO) applies to all ILO member-States whether they have ratified it or not. It is part and parcel of the ILO's Constitution. Indian cotton and hybrid cotton seeds are currently listed by the U.S. Labor Department as goods produced by child or forced labour. To combat this, Confederation of Indian Textile Industry (CITI) and ILO have launched a project called "Promoting Fundamental Principles and Rights at Work" (FPRW). This project aims to improve working conditions for cotton farmers.

Source: [The Hindu](#)

29. Correct Answer is (B)

- Statement 1 is incorrect. India is the largest SAARC member country in terms of land area.
- Statements 2 and 3 are correct. SAARC focuses on several areas of cooperation, including international trade, which is a significant part of its agenda. India is the largest economy among the BIMSTEC member countries.

Source: [The Hindu](#)

Economy

30. Correct Answer is (B)

- An unchanged repo rate impacts the government's fiscal policy by allowing the government to maintain current borrowing costs. This is because the repo rate, set by the Reserve Bank of India (RBI), influences the interest rates at which the government can borrow money. When the repo rate remains stable, it provides consistency in borrowing costs, which helps the government plan its budget without the need for immediate adjustments in taxation or spending.

Source: [The Hindu](#)

31. Correct Answer is (A)

- Statement 1 is correct. Headline inflation is the total inflation within an economy and includes all items in the CPI, including volatile components like food and energy prices.
- Statement 2 is incorrect. Food inflation directly impacts headline inflation due to its inclusion in the CPI, but it does not directly influence core inflation, which excludes food prices. Core inflation excludes food and fuel prices, so high food inflation does not directly influence core inflation.

Source: [The Hindu](#)

32. Correct Answer is (B)

- Statements 1 and 3 are correct. Headline inflation measures the total inflation within an economy, including all commodities such as food and energy prices, which tend to be volatile. Rising inflation, including headline inflation, erodes the purchasing power of money, meaning that the value of money falls as inflation increases.
- Statement 2 is incorrect. Headline inflation is more volatile than core inflation because it includes food and energy prices, which are subject to frequent fluctuations.

Source: [The Hindu](#)

33. Correct Answer is (B)

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- Foreign portfolio investments increase the demand for the Indian Rupee as foreign investors need to convert their USD into INR to invest in Indian markets. This increased demand for INR leads to its appreciation. Conversely, factors like lower interest rates, higher crude oil imports, and rising US interest rates could lead to a depreciation of the Rupee.

Source: [AIR](#)

34. Correct Answer is (C)

- In the context of financial markets, short selling is a strategy where an investor borrows a security, such as a stock, and sells it on the market, anticipating that its price will decrease. Short selling is a way to profit from falling prices, but it carries significant risks. If the price of the security increases instead of decreasing, the investor can face unlimited losses, as there is no cap on how high a stock price can go.

Source: [The Hindu](#)

35. Correct Answer is (C)

- **Statement-I is correct:** India has a poor ranking in the Human Development Index (HDI). India ranks 134th out of 193 countries in the Human Development Index, which is considered a medium human development category but still reflects a relatively low ranking globally.
- **Statement-II is incorrect:** India has experienced strong GDP growth, with recent growth rates being among the highest globally. For example, India's GDP growth rate was estimated at 8.2% for the financial year 2023-24, indicating robust economic growth.

Source: [The Hindu](#)

36. Correct Answer is (B)

- Stakeholder Capitalism is a model of corporate governance where companies are oriented to serve the interests of all their stakeholders, not just their shareholders. This approach recognizes that businesses have responsibilities beyond generating profits for investors. It is a system where corporations are oriented to serve the interests of all their stakeholders, including customers, suppliers, employees, shareholders, and local communities. Under Stakeholder Capitalism, companies strive to create value for all these groups, balancing financial success with social responsibility and ethical considerations. This approach contrasts with the traditional Shareholder Primacy model, which focuses primarily on maximizing shareholder value.

Source: [The Hindu](#)

Environment

37. Correct Answer is (B)

- Statements 1 and 3 are correct. Fly ash contains oxides of silicon, aluminium, iron, calcium, and magnesium, among other elements. Incorporating fly ash into concrete reduces the demand for cement, thereby lowering CO₂ emissions from cement production.
- Statements 2 and 4 are incorrect. Fly ash is primarily produced as a byproduct of burning coal in power plants. While improper disposal of fly ash can lead to environmental contamination, it is not directly linked to ozone layer depletion. Ozone depletion is primarily caused by substances like chlorofluorocarbons (CFCs). Improper disposal of fly ash can lead to groundwater contamination due to the leaching of toxic compounds and heavy metals. Fly ash is a byproduct of coal combustion and is not used as fuel. It has various applications in construction and manufacturing, but not as a fuel source.

Source: [The Hindu](#)

38. Correct Answer is (B)

- Statement 1 is incorrect. The approval process for any non-forestry activities on forest land, including in wildlife sanctuaries, is governed by the Forest (Conservation) Act, 1980. This act mandates that any conversion of forest land to non-forest purposes requires prior approval from the Central Government. The Forest (Conservation) Act, 1980 ensures that any such activities are regulated to prevent deforestation and to protect forest ecosystems. The Chief Wildlife Warden (CWLW) is the statutory authority who exercises complete administrative control over Protected Areas within a state.
- Statement 2 is correct. The Forest (Conservation) Act, 1980, mandates that any non-forestry activity on forest land requires prior approval from the Central Government.

Source: [The Hindu](#)

39. Correct Answer is (D)

- Just Transition involves a fair and equitable shift from fossil fuels to cleaner energy sources. It emphasizes the importance of collaboration between different stakeholders to address the social and economic challenges associated with the transition. This approach involves collaboration between government, industry, and labour unions to ensure that workers and communities affected by the transition are supported through job retraining, financial assistance, and other measures to mitigate the social and economic impacts. This ensures that the shift to renewable energy is fair and equitable for all stakeholders involved.

Source: [The Hindu](#)

40. Correct Answer is (D)

- All four of the international organizations – World Wildlife Fund (WWF), United Nations Environment Programme (UNEP), Wildlife Conservation Society (WCS), and International Union for Conservation of Nature (IUCN)—are actively involved in addressing Human-Animal Conflict.

Source: [DD News](#)

41. Correct Answer is (C)

- Mustard seeds are not used for ethanol production. They are more commonly associated with biodiesel production and other industrial uses. Ethanol production requires feedstocks that are rich in fermentable sugars or starches, such as maize, sugarcane, or broken rice. Mustard seeds do not have significant amounts of these components, making them unsuitable for ethanol production.

Source: [AIR](#)

42. Correct Answer is (C)

- Statements 1 and 2 are correct. Shendurney Wildlife Sanctuary is located in the Western Ghats, in the Kollam district of Kerala. The sanctuary is located on either side of the Shendurney River, which is also referred to as the Chenthuruni River. It features a mix of evergreen and deciduous forests, along with rolling hills, streams, and rivers, creating a lush and diverse landscape. *Asceua tertia* is a newly identified species of ground-dwelling spider, discovered in the Shendurney Wildlife Sanctuary.

Source: [Forum IAS](#)

43. Correct Answer is (A)

- Statements 1 and 2 are correct. Ballast water can introduce invasive marine species to new environments, which can have devastating effects on local ecosystems. The BWM Convention aims to prevent the spread of harmful aquatic organisms and pathogens by establishing standards and procedures for managing and controlling ships' ballast water and sediments.
- Statement 3 is incorrect. India is not one of the signatories of the Ballast Water Management (BWM) Convention.

Source: [The Hindu](#)

44. Correct Answer is (C)

- **Nanjarayan Bird Sanctuary** – The Nanjarayan Bird Sanctuary is located in Tamil Nadu. It is a large shallow wetland that serves as a crucial habitat for a variety of species. The sanctuary acts as a feeding and nesting habitat for resident bird species and is an important feeding ground for migratory birds during their seasonal movements. The sanctuary has been designated as a Ramsar site.
- **Kazhuveli Bird Sanctuary** – The Kazhuveli Bird Sanctuary is located in Tamil Nadu. The Kazhuveli Bird Sanctuary covers an area of 51.56 square kilometers and includes a brackish shallow lake connected to the Bay of Bengal. It is situated on the Central Asian Flyway, making it an important stopover site for migratory bird species. It is also a Ramsar site.
- **Tawa Reservoir** – The Tawa Reservoir is located in Madhya Pradesh. The Tawa Reservoir is formed by the confluence of the Tawa and Denwa rivers and is located within the Satpura Tiger Reserve. It serves as an important habitat for aquatic flora and fauna, including many rare and endangered species of plants, reptiles, and insects. The reservoir is a vital habitat for local and migratory birds. It has been designated as a Ramsar site.

Source: [AIR](#)

45. Correct Answer is (B)

- Corporate Average Fuel Economy (CAFE) norms are regulations that set fuel efficiency standards for vehicles. These standards are designed to improve the average fuel economy of cars and light trucks, thereby reducing fuel consumption and lowering greenhouse gas emissions like CO₂. CAFE standards encourage automakers to produce more fuel-efficient vehicles, which helps in reducing the environmental impact of transportation and decreasing reliance on fossil fuels.

Source: [The Hindu](#)

Science & Technology

46. Correct Answer is (B)

- Statements 1 and 2 are correct. The DCGI, who heads the Central Drugs Standard Control Organization (CDSCO), is responsible for reviewing and approving clinical trial applications for new drugs in India. Whereas, Clinical Trials Registry - India (CTRI) is responsible for the registration of clinical trials in India. The Indian government has waived the requirement for local clinical trials for certain drugs that have been approved in countries like the U.S., U.K., Japan, Australia, Canada, and the European Union, provided they fall into specific categories such as orphan drugs for rare diseases, gene and cellular therapy products, and others.
- Statement 3 is incorrect. Generic drugs are copies of already approved brand-name drugs. They undergo their own set of tests to prove bioequivalence but do not require full-scale clinical trials like new drugs. The waivers are primarily for new drugs with significant therapeutic advances or those used in specific situations like pandemics or rare diseases.

Source: [The Hindu](#)

47. Correct Answer is (B)

- Statements 1 and 3 are correct. DNA, or deoxyribonucleic acid, is the genetic material found in the nuclei of cells in living organisms. DNA carries all the information needed for the body's structure, appearance, and functions, encoded in sequences of four chemical bases: Adenine (A), Guanine (G), Thymine (T), and Cytosine (C), along with a sugar-phosphate backbone. The quantity of DNA can vary depending on the biological material. Blood and saliva are generally richer sources of DNA, whereas teeth and hair roots typically contain less DNA. It is to note that the amount of DNA does not vary significantly from one somatic cell to another. However, the amount of DNA varies between different biological sources.
- Statements 2 and 4 are incorrect. DNA is present in almost every cell of the human body, except for mature red blood cells. Short Tandem Repeats (STRs) help to distinguish one person's DNA from another's.

Source: [The Hindu](#)

48. Correct Answer is (B)

- BPaL (Bedaquiline, Pretomanid, Linezolid) regimen is a groundbreaking treatment for multidrug-resistant tuberculosis (MDR-TB) and extensively drug-resistant tuberculosis (XDR-TB). This regimen includes three drugs: bedaquiline (B), pretomanid (Pa), and linezolid (L). The BPaL regimen reduces the treatment duration from the traditional 18-24 months to just 6 months. Unlike older regimens that required multiple drugs, including injectables, BPaL is an all-oral regimen, making it easier for patients to adhere to the treatment. The World Health Organization (WHO) has recommended the BPaL regimen as a treatment option for most forms of drug-resistant TB.

Source: [The Hindu](#)

49. Correct Answer is (D)

- NUE is a key metric in agriculture that measures how effectively a plant utilizes the nitrogen available to it. This includes nitrogen from both natural sources (like organic matter in the soil) and artificial sources (such as fertilizers). It is calculated by taking the amount of nitrogen that the plant actually absorbs and uses for growth and dividing it by the total amount of nitrogen that was applied to the soil. This gives an indication of how much of the applied nitrogen is being effectively used by the plant.

Source: [The Hindu](#)

50. Correct Answer is (A)

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- Statement 1 is correct. The exercise Udara Shakti is a joint military exercise between the Indian Air Force and the Royal Malaysian Air Force, conducted in Malaysia.
- Statements 2 and 3 are incorrect. The exercise involved the Su-30 fighter jets from both the Indian and Malaysian air forces. The exercise was conducted at Kuantan, Malaysia.

Source: [AIR](#)

51. Correct Answer is (B)

- Bioinformatics is extensively used to analyze genetic sequences, which helps in understanding the mechanisms of diseases, identifying genetic variations, and developing targeted treatments. Bioinformatics involves using computer technology to collect, store, analyze, and interpret biological data. This includes data related to DNA, RNA, and protein sequences. The main goal of bioinformatics is to increase our understanding of biological processes and systems. It is used to tailor medical treatments to individuals based on their genetic makeup, helping predict disease susceptibility and response to treatments. Bioinformatics and machine learning are used to analyze complex data and provide personalized nutrition advice (Precision nutrition).

Source: [The Hindu](#)

52. Correct Answer is (B)

- Deepfakes are a type of synthetic media where artificial intelligence techniques are used to replace a person in an existing image or video with someone else's likeness. This technology relies on deep learning algorithms and neural networks to analyze and learn the facial features and expressions of the target person, allowing for the realistic synthesis of fake audio-visual content.

Source: [The Hindu](#)

53. Correct Answer is (D)

- Statements 1 and 2 are incorrect. India became the fourth country to land on the moon and the first to reach its southern polar region. The INSAT system is primarily used for telecommunications, broadcasting, meteorology, and search and rescue operations. Whereas, Indian Remote Sensing (IRS) satellites are used for resource management and disaster monitoring. Prime Minister Narendra Modi has announced August 23 as "National Space Day." India is celebrating its maiden National Space Day on August 23 with the theme "Touching Lives while Touching the Moon: India's Space Saga."

Source: [AIR](#)

54. Correct Answer is (B)

- The GAURAV is designed as an air-launched glide bomb capable of hitting targets at long distances with high accuracy using a sophisticated navigation system. It is intended to enhance India's defence capabilities by allowing precise strikes from a safe distance, thereby minimizing the risk to the aircraft launching it.

Source: [The Hindu](#)

55. Correct Answer is (A)

- Statement-I: The ANRF is intended to support basic research and prototype development, as indicated by the government's plans to operationalize it for these purposes.
- Statement-II: The Indian government has shown interest in supporting research that can lead to marketable products, as evidenced by its emphasis on prototype development and the encouragement of private sector involvement in research funding.
- Hence, the ANRF's focus on prototype development aligns with the government's interest in turning research into marketable products. This suggests that the government's broader interest in commercializing research supports the operational goals of the ANRF.

Source: [The Hindu](#)

56. Correct Answer is (B)

- Statement 1 is incorrect. The primary purpose of the NLEM is not to promote the export of pharmaceuticals but to ensure the availability of essential medicines that satisfy the priority healthcare needs of the population at affordable costs and with assured quality within the country. The focus is on rational use, cost-effectiveness, and accessibility of medicines for the domestic population.

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- Statement 2 is correct. The NPPA is responsible for fixing and regulating the prices of medicines listed in the NLEM to ensure they are available at affordable rates.

Source: [The Hindu](#)

57. Correct Answer is (A)

- Statements 1 and 2 are correct. Space weather is influenced by solar activity, including solar wind, solar flares, and coronal mass ejections, which can affect the Earth's magnetosphere and technological systems. Supergranular cells are large convection patterns on the Sun's photosphere, characterized by horizontal flows and a typical size of about 30,000 kilometers.
- Statement 3 is incorrect. The solar cycle refers to the approximately 11-year cycle of changes in the Sun's magnetic activity, including variations in sunspot numbers, solar radiation, and solar flares.

Source: [The Hindu](#)

58. Correct Answer is (A)

- Statement 1 is correct. Mpox (formerly known as monkeypox) causes flu-like symptoms such as fever, chills, muscle aches, and swollen lymph nodes. It also leads to a rash that progresses through stages, eventually forming pus-filled lesions (pustules) before scabbing over and healing. The World Health Organization (WHO) has declared mpox a global public health emergency for the second time in two years. The health emergency declaration came following an outbreak of the viral infection in the Democratic Republic of Congo which subsequently spread to neighbouring countries including Burundi, Kenya, Rwanda and Uganda.
- Statement 2 is incorrect. Mpox is primarily transmitted through close contact with an infected person or animal, or through contact with contaminated materials such as bedding. It can also spread through respiratory droplets during prolonged face-to-face contact.

Source: [AIR](#)

59. Correct Answer is (B)

- Statements 1 and 2 are correct. The NPSS is designed to offer timely and precise pest management advisories to farmers using digital technologies like AI and ML. It aims to reduce farmers' reliance on pesticide retailers and encourage a scientific approach to pest management. By analyzing data with AI tools, the system helps in effective pest control and management. Farmers can take photos of crops affected by pests and send them to experts through the system. This helps in diagnosing and treating pest issues accurately and timely. AI and ML are used in the NPSS to analyze data, detect pest issues, and provide timely information and advisories to farmers.
- Statement 3 is incorrect. "Kisan e-Mitra" is the name of the AI-powered chatbot developed by the Ministry of Agriculture & Farmers Welfare to assist farmers.

Source: [The Hindu](#)

60. Correct Answer is (A)

- Statement 1 is correct. Wolbachia is safe for humans and animals, as it cannot make people or animals sick. It naturally occurs in many insects but not in Aedes mosquitoes. Wolbachia can have a symbiotic relationship with its host, offering benefits like resistance to viral infections (mutualism) but also potentially harming the host by reducing its lifespan (parasitism). Wolbachia could help fruit flies resist viral infections.
- Statement 2 is incorrect. Wolbachia is introduced into Aedes mosquitoes through a process called transinfection, which does not involve genetic engineering. The genetic material of the mosquito is not altered, and therefore, it is not considered genetic modification.

Source: [The Hindu](#)