

10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

October, 2024 3rd Week

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Art & Culture

Q.1) Consider the following statements:

1. Abhidhamma refers to the historical accounts of the Buddha's life.
2. Pali was the language used to preserve the teachings of the Buddha.

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.2) In the context of the Buddha's teachings, which one of the following is the significance of living according to Dhamma?

- a) It guarantees wealth and prosperity in this life
- b) It leads to liberation by aligning with the truth of existence
- c) It ensures rebirth in a higher form in the next life
- d) It promotes social status and authority in religious circles

Q.3) Consider the following statements with respect to the Vijayanagara Kingdom:

1. It is often referred to as a golden age of literature and culture in South India.
2. Sandstone was the primary building material used in Vijayanagara temple construction.
3. Garbhagriha was the distinctive feature of Vijayanagara temple architecture.

How many of the statements given above are correct?

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

Q.4) What is Kalaripayattu primarily known for?

- a) A dance form
- b) A martial art
- c) A musical tradition
- d) A culinary art

Modern Indian History

Q.5) Consider the following statements:

1. Ashfaqulla Khan was one of the founders of the Hindustan Republican Association.
2. The Kakori Train Action was part of the Civil Disobedience Movement 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

Geography

Q.6) With reference to the Delhi Ridge, consider the following statements:

1. It is a northern extension of the Aravalli Range.
2. It acts as a watershed dividing two plains.
3. It covers the entire National Capital Territory of Delhi.
4. It lacks any significant biodiversity.

How many of the statements given above are correct?

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

Q.7) Which one of the following statements about rabi crops is most accurate?

- a) They require warm temperatures for germination and hot weather for growth
- b) They are exclusively grown using rainwater without irrigation
- c) They are sown in winter and require cold weather for growth
- d) They are harvested in the winter months of December and January

Q.8) Consider the following statements:

1. Deep-sea heatwaves are driven by ocean currents.
2. Marine heatwaves can lead to coral bleaching and displace marine species.

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.9) Consider the following statements:

1. Tropical cyclones in the Indian Ocean region are formed due to the strong westerly winds.
2. The Coriolis force prevents the formation of cyclone near the equator.
3. Cyclones are more frequent in the Bay of Bengal compared to the Arabian Sea due to its lower humidity levels.

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

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

Q.10) Consider the following statements:

1. Galathea Bay is located in the Lakshadweep Island.
2. The new International Container Transshipment Port (ICTP) at Galathea Bay has been designated as India's major port.

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) With reference to Tungabhadra River, consider the following statements:

1. The river originates in the Western Ghats in the state of Karnataka.
2. The river ultimately merges with the Kaveri River.
3. The river passes through Hampi.
4. Underground springs are the primary source of water for the river.

Which of the statements given above are correct?

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

Polity

Q.12) Consider the following statements:

1. The Assam Accord was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement.
2. Section 6A into the Citizenship Act, 1955 grant citizenship to Bangladeshi immigrants who entered into Assam after March 25, 1971.

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

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

Q.13) Under which one of the following ministries does the National Pharmaceutical Pricing Authority (NPPA) operate?

- a) Ministry of Health and Family Welfare
- b) Ministry of Science and Technology
- c) Ministry of Chemicals and Fertilizers
- d) Ministry of Commerce and Industry

Q.14) Which one of the following is the definition of a "new drug" under the New Drugs and Clinical Trial (NDCT) Rules, 2019?

- a) A drug that has been used in India to a significant extent
- b) A drug that has not been used in India to any significant extent
- c) A drug that is only used for non-communicable diseases
- d) A drug that is only used for rare disorders

Q.15) Which one of the following is the benefit Third-Party Litigation Funding (TPLF) for countries like India?

- a) It helps speed up the legal system and reduce pending cases
- b) It ensures government funding for all legal cases
- c) It allows economically weaker individuals to challenge powerful entities in court
- d) It replaces the traditional court system with an alternative dispute resolution mechanism

Q.16) In which one of the following situations would a writ of habeas corpus NOT be applicable?

- a) Detention without legal authority
- b) Lawful imprisonment after conviction by a competent court
- c) Arrest without producing before a magistrate within 24 hours
- d) Detention beyond the period of sentence

Q.17) With reference to the National Human Rights Commission (NHRC), consider the following statements:

- 1. It is a constitutional body.
- 2. Sitting Chief Justice of a High Court cannot be appointed as the Chairperson of the NHRC.
- 3. It studies treaties and other international instruments on human rights and make recommendations for their effective implementation.

How many of the statements given above are correct?

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

Q.18) The Supreme Court of India recently introduced a new statue of 'Lady Justice,'. In contrast to the conventional representation, the new statue does not feature a blindfold. This absence of the blindfold is symbolic of:

- a) The judiciary's ability to enforce laws with greater severity and strictness.
- b) An emphasis on transparency and the judiciary's awareness of social realities and diversity.
- c) A shift towards prioritizing punitive measures over restorative justice.
- d) The judiciary's focus on maintaining traditional values without adapting to modern challenges.

Q.19) Which one of the following statements is correct regarding the term 'Secularism'?

- a) The Indian concept of secularism requires the government to fund only those religious activities that align with the majority religion's practices.
- b) Secularism in India mandates that religious education is prohibited in all educational institutions.
- c) Secularism in the Indian context refers to a state where all religions are treated equally, but religious considerations can influence government policies during emergencies.
- d) Secularism in India means that the state does not officially endorse any religion and treats all religions equally without interfering in religious matters.

Q.20) Which one of the following is a primary benefit for states included in the Sixth Schedule?

- a) Increased central funding
- b) Autonomous governance through District Councils and Regional Council
- c) Priority in defence allocations
- d) Additional representation in Parliament

Q.21) With reference to the Indian Constitution, consider the following statements:

- 1. Directive Principles have an equal status with Fundamental Rights and can be enforced by courts in cases where Fundamental Rights are violated.
- 2. The State Governments can legislate on matters in the Union List with the consent of the President, while the Union can legislate on the State List only in emergency situations.

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.22) With reference to the National Commission for Women (NCW), which of the following statements are correct?

1. Article 39A is the primary constitutional basis for the establishment of the National Commission for Women.
2. It has the powers of a civil court when investigating matters related to women's rights.
3. The term for the Chairperson of the NCW is three years or until age 65, whichever comes first.

Select the correct answer using the codes given below:

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

Q.23) Consider the following statements:

1. Article 23 of the Indian Constitution addresses the provision of religious instruction in educational institutions.
2. Private schools run by religious institutions can provide religious education 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

Acts & Policies

Q.24) With reference to IndiaAI Mission, consider the following statements:

1. It is a comprehensive initiative launched by the Indian government to position India as a global leader in artificial intelligence (AI) research, development, and application.
2. IndiaAI Compute Capacity, a component of the Mission, is responsible for regulating AI applications in the private sector.

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.25) Consider the following statements:

1. Mission Karmayogi aims to build a competent civil service based on Indian principles, focused on national priorities, and working in harmony for better public services.
2. Integrated Government Online Training (iGOT)- Karmayogi platform aims to evaluate citizen feedback on government services.

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.26) With reference to the Mission Mausam, which of the following statement(s) is/are correct?

1. The initiative aims to leverage new technologies such as machine learning and improve understanding of atmospheric physics to enhance weather forecasting capabilities.
2. Indian Space Research Organisation (ISRO), Indian Institute of Science (IISc), and National Institute of Ocean Technology (NIOT) are responsible for implementing Mission Mausam.
3. Deployment of next-generation radars and satellite systems are components of Mission Mausam.

Select the correct answer using the codes given below:

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

Q.27) With reference to UDAN (Ude Desh ka Aam Nagrik) Scheme, consider the following statements:

1. The main goal of the scheme is to promote low-cost airlines and expand flight options for passengers.
2. The scheme provides Viability Gap Funding (VGF) to airlines to bridge the gap between cost of operations and expected revenues.

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

Index & Reports

Q.28) With reference to Global Hunger Index (GHI) 2024, which of the following statements are correct?

1. It provides a comprehensive assessment of hunger levels globally.
2. The GHI score for each country is calculated using four key indicators.
3. The index reports that India is suffering from a serious hunger issue.

Select the correct answer using the codes given below:

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

Q.29) Consider the following statements:

1. Human Development Index (HDI) is a measure created by the United Nations Development Programme (UNDP).
2. According to the Human Development Report 2023-24, India is classified in the high human development category.

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

International Relations/Organizations

Q.30) With reference to Five Eyes alliance, consider the following statements:

1. Canada, Germany, Australia, and India are members of alliance.
2. The alliance focusses on Signals intelligence.

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.31) Consider the following statements:

1. The Battle of Walong took place in Ladakh.
2. The Battle of Walong was the only counterattack launched by Indian forces during the 1962 Sino-Indian War.

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.32) Consider the following statements regarding the International Solar Alliance (ISA):

1. It's the first treaty-based organization focused only on solar energy.
2. The ISA Assembly is the highest decision-making body.
3. International Hydroelectric Power Alliance is a key initiative under the ISA.

Which of the statements given above are correct?

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

Q.33) Consider the following statements regarding the Quad grouping:

1. India provides technological expertise for cybersecurity initiatives in achieving the Quad's strategic objectives.
2. Exercise Malabar involves countries of Quad.
3. It is a treaty-based organization with a rotating presidency.

How many of the statements given above are correct?

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

Q.34) Consider the following statements:

1. Shadow fleet is an alliance of countries sharing naval intelligence.
2. Flags of Convenience (FoCs) refer to a practice where ship owners register their vessels in a country other than their own to benefit from more lenient regulations.
3. The International Maritime Organization (IMO) is responsible for regulating international trade.

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

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

Q.35) Which one of the following most significant powers India would gain with permanent membership in the United Nations Security Council (UNSC)?

- a) Ability to impose economic sanctions unilaterally
- b) Control over UN peacekeeping operations
- c) Exclusive rights to propose new international laws
- d) Veto power over substantive resolutions

Q.36) With reference to the International Monetary Fund (IMF), consider the following statements:

1. It is an independent international financial institution that cooperates closely with the United Nations.
2. It is regarded as the global lender of last resort to national governments.
3. Special Drawing Right (SDR) is a type of loan provided by the IMF to developing countries.
4. International Financial Review Report is published bi-annually by the IMF to provide economic forecasts.

How many of the statements given above are correct?

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

Q.37) Which one of the following statements best describes the geopolitical significance of BRICS in the context of global governance?

- a) BRICS primarily serves as a counterbalance to NATO and the European Union.
- b) BRICS focuses exclusively on economic cooperation without any political implications.
- c) BRICS represents a coalition of emerging economies aimed at reforming global governance structures dominated by Western powers.
- d) BRICS is a military alliance that seeks to enhance security cooperation among its members.

Economy

Q.38) Consider the following statements:

1. The Minimum Support Price (MSP) is a form of market intervention by the Government of India to insure agricultural producers against sharp falls in farm prices.
2. Food Corporation of India (FCI) recommends the Minimum Support Price (MSP) for agricultural products in India.
3. In India, the Minimum Support Price (MSP) lacks legal status.

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 is the key feature of the T+1 settlement cycle?

- a) Transactions are settled on the same day of the trade
- b) Transactions are settled one business day after the trade
- c) Transactions are settled two business days after the trade
- d) Transactions are settled three business days after the trade

Q.40) Which of the following best describes the core principle of Universal Basic Income (UBI)?

- a) Providing income only to the unemployed
- b) Giving cash payments to all citizens regardless of income or employment status
- c) Offering subsidized food to low-income families
- d) Providing job guarantees to all working-age adults

Q.41) Which one of the following will likely be the immediate effect of significant foreign outflows from the Indian stock market on the Indian rupee?

- a) The Indian rupee will appreciate due to increased demand for domestic currency.
- b) The Indian rupee will depreciate due to reduced demand for the rupee in exchange markets.
- c) The Indian rupee will remain stable as domestic demand compensates for foreign outflows.
- d) The Indian rupee will appreciate as the central bank increases interest rates to attract foreign capital.

Q.42) Consider the following statements:

Statement-I: India is becoming a key player in global supply chains, especially in electronics manufacturing.

Statement-II: India has launched Production Linked Incentive (PLI) schemes for the manufacturing sectors.

Statement-III: India has a large, skilled workforce that supports its growing manufacturing sector.

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

- a) Both Statement-II and Statement-III are correct and both of them explain Statement-I
- b) Both statement-II and Statement-III are correct, but only one of them explains Statement-I
- c) Only one of the Statements II and III is correct and that explain Statement-I
- d) Neither Statement-II nor Statement-III is correct

Q.43) Consider the following pairs:

Policies-----Tools-----Outcomes

1. Monetary Policy-----Tax cuts and public spending----- Stimulating aggregate demand
2. Fiscal Policy-----Interest rate adjustments----- Controlling inflation
3. Structural Reforms-----Deregulation and labour reforms--- Increasing long-term economic growth

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

Environment

Q.44) Consider the following statements:

1. Green methanol can reduce carbon dioxide emissions by up to 95%.
2. Green methanol production eliminates the need for green hydrogen.
3. Green methanol can store excess renewable energy and be used to generate electricity or as a fuel.

How many of the statements given above are correct?

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

Q.45) Consider the following statements:

1. Namdapha National Park has the highest butterfly's species in India.
2. Kaziranga National Park is the only habitat for one-horned rhinoceros 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.46) Consider the following statements:

1. National Green Hydrogen Mission seeks to significantly reduce carbon emissions across various sectors by promoting the use of green hydrogen.
2. Green hydrogen is considered as a key player in achieving net-zero emissions because it can be easily produced using fossil fuels.
3. Green hydrogen can be used in steel making 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.47) Which one of the following best describes the relationship between corals and zooxanthellae under normal conditions?

- a) Parasitic
- b) Competitive
- c) Symbiotic
- d) Predatory

Q.48) Enhanced rock weathering process, seen in the news recently, helps in:

- a) Improving soil structure and fertility by accelerating mineral decomposition for agricultural purposes.
- b) Capturing and storing atmospheric CO₂ through chemical reactions with crushed silicate rocks.
- c) Increasing the conductivity of groundwater by altering the pH balance of aquifers.
- d) Enhancing the production of geothermal energy by promoting heat transfer in rock formations.

Q.49) Consider the following statements:

1. Climate finance is funding aimed at supporting actions to mitigate and adapt to climate change.
2. The funding, under climate finance, must come from public sources only.
3. The United Nations Framework Convention on Climate Change (UNFCCC) tracks climate finance flows from developed to developing countries.
4. The New Collective Quantified Goal (NCQG) is a new climate finance target being developed to support developing countries in their climate efforts post-2025.

Which of the statements given above are correct?

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

Q.50) Consider the following statements:

1. Desertification is a major cause of land degradation in India.
2. Sustainable Development Goal 15 focuses on sustainable forest management and combating desertification.
3. The practice of 'conservation agriculture' aims to address land degradation by minimizing soil disturbance and maintaining permanent soil cover.

How many of the statements given above are correct?

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

Q.51) With reference to Kunming-Montreal Global Biodiversity Framework, consider the following statements:

1. Its primary aim is to halt and reverse biodiversity loss by 2030.
2. The "30x30" target in the framework requires 30% reduction in carbon emissions by 2030.
3. It requires developing countries to bear a greater share of financial responsibility for biodiversity conservation.

How many of the statements given above are correct?

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

Q.52) Consider the following statements:

1. Tenkara spiders are endemic to North Eastern India.
2. Tenkara spiders prefer drier areas and ground habitats.

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.53) When the Commission for Air Quality Management directs states in the National Capital Region (NCR) to take specific actions under Stage 2 of the Graded Response Action Plan (GRAP), it triggers a set of specific measures. Which one of the following would be a consequence of this directive?

- All industrial activities within the NCR are immediately halted to prevent any further emissions, regardless of their pollution control measures.
- Implementation of odd-even vehicle rationing scheme across the entire NCR region.
- Increased water sprinkling on roads to control dust pollution and enhancement of public transport services to discourage private vehicle use.
- Mandatory implementation of work-from-home policies for all private and government offices in the NCR

Q.54) Consider the following statements:

- India aims to become a global hub for green hydrogen through initiatives like the National Green Hydrogen Mission.
- Green hydrogen combustion does not produce any pollutants.

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

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

Science & Technology

Q.55) Consider the following statements:

- microRNA (miRNA) and messenger RNA (mRNA) are made from the same basic chemical components.
- The mRNA is used to build the carbohydrates.
- mRNAs have a greater length compared to the shorter miRNAs.

Which of the statements given above are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Q.56) Consider the following:

- Cyber Attacks
- Misleading Campaigns
- Economic Disruptions
- Naval Battles

How many of the above forms the part of non-kinetic warfare?

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

Q.57) Which one of the following is the primary purpose of the Next Generation Missile Vessels (NGMVs) for the Indian Navy?

- Anti-submarine warfare
- Anti-surface warfare
- Amphibious operations
- Mine countermeasures

Q.58) Consider the following statements:

- The causative agent of Kala-azar disease in India is bacterium Escherichia coli.
- The World Health Organization (WHO) has set targets for eliminating Kala-azar as part of its Neglected Tropical Diseases (NTD) roadmap.

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

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

Q.59) In the context of Artificial Intelligence (AI), neural networks refer to:

- A type of programming language specifically designed for developing artificial intelligence applications.
- A structure of interconnected nodes that mimics the way the human brain processes information, allowing for pattern recognition and learning.
- A physical network of computers that work together to solve complex problems without any form of learning or adaptation.
- A set of algorithms that only function with pre-defined rules and cannot learn from data or improve their performance over time.

Q.60) Consider the following statements regarding the nuclear-powered ballistic missile submarine (SSBN):

- INS Arihant is India's first indigenous SSBN.
- India is the only Asian country with an SSBN.
- India has recently launched its fourth nuclear-powered ballistic missile submarine known as S4*.

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

- 1 and 2 only
- 2 only
- 1 and 3 only
- 3 only

Answer Key

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

Answers & Explanations

Art & Culture

1. Correct Answer is (B)

- Statement 1 is incorrect. The Abhidhamma is not a historical account of the Buddha's life. Instead, it is a collection of Buddhist texts that provide a detailed and systematic analysis of the Buddha's teachings, focusing on the nature of reality, mind, and mental phenomena. It is part of the Pali Canon and is considered the "Higher Teaching" in Buddhism, offering philosophical and psychological insights rather than historical narratives.
- Statement 2 is correct. Pali was the language used to preserve the teachings of the Buddha, particularly in the Theravada Buddhist tradition. The Pali Canon, which includes the Vinaya Pitaka, Sutta Pitaka, and Abhidhamma Pitaka, was written in Pali and contains the foundational texts of Theravada Buddhism.

Source: [AIR](#)

2. Correct Answer is (B)

- Living according to Dhamma means following the path laid out by the Buddha to understand and overcome suffering. This involves adhering to the Four Noble Truths and practicing the Noble Eightfold Path, which encompasses right understanding, intention, speech, action, livelihood, effort, mindfulness, and concentration. The significance of living in accordance with Dhamma is that it leads to spiritual liberation or Nirvana by aligning oneself with the fundamental truths of existence. This path encourages ethical living, mental discipline, and wisdom, ultimately freeing individuals from the cycle of suffering and rebirth.

Source: [AIR](#)

3. Correct Answer is (A)

- Statement 1 is correct. The Vijayanagara period is often described as a golden age of literature and culture in South India, with significant contributions in languages such as Kannada, Telugu, Tamil, and Sanskrit.
- Statements 2 and 3 are incorrect. The primary building material used in Vijayanagara temple construction was granite, not sandstone. Granite was chosen for its durability. Raya Gopurams were a distinctive feature of Vijayanagara temple architecture. These are large, ornate entrance towers that were prominently built at the entrances of temples during the Vijayanagara Empire. They were often adorned with intricate carvings and life-sized figures of gods and goddesses. They became a distinct feature of the architectural style developed under the Vijayanagara rulers.

Source: [The Hindu](#)

4. Correct Answer is (B)

- Kalaripayattu is primarily known as an ancient martial art form that originated in Kerala. It is recognized as one of the oldest and most scientific martial arts in the world, combining physical prowess, discipline, combat techniques, and spiritual development.

Source: [The Hindu](#)

Modern Indian History

5. Correct Answer is (A)

- Statement 1 is correct. Ashfaqulla Khan was a co-founder of the Hindustan Republican Association (HRA), which later became the Hindustan Socialist Republican Association.
- Statement 2 is incorrect. The Kakori Train Action, also known as the Kakori Conspiracy, was a revolutionary act carried out by members of the Hindustan Republican Association in 1925 to fund

their activities against British rule. It was not part of the Civil Disobedience Movement, which began later in 1930 as a non-violent resistance movement led by Mahatma Gandhi.

Source: [AIR](#)

Geography

6. Correct Answer is (B)

- Statements 1 and 2 are correct. The Delhi Ridge is a part of the Aravalli Range, one of the oldest mountain ranges in the world, stretching across states like Delhi, Haryana, Rajasthan, and Gujarat. The Delhi Ridge functions as a watershed, dividing the Indus Plain to the west from the Gangetic Plain to the east.
- Statements 3 and 4 are incorrect. The Delhi Ridge does not cover the entire National Capital Territory of Delhi. It is divided into four distinct parts: Northern Ridge, Central Ridge, South-Central Ridge, and Southern Ridge, and does not encompass the entire territory. The Delhi Ridge is a biodiversity hotspot, home to a variety of plants and animals, including over 100 species of birds, jackals, Indian crested porcupines, mongooses, and other wildlife.

Source: [The Hindu](#)

7. Correct Answer is (C)

- Rabi crops are typically sown in the winter months, from October to December, and they require a cool climate for optimal growth. The crops are harvested in the spring, around April to June.

Source: [AIR](#)

8. Correct Answer is (C)

- Statements 1 and 2 are correct. Research indicates that ocean currents, particularly eddies, play a significant role in driving subsurface marine heatwaves. These eddies can carry warm water across long distances and contribute to the warming of deep ocean waters. Marine heatwaves are known to cause severe damage to marine habitats, including coral bleaching. The high temperatures can lead to the expulsion of symbiotic algae from corals, compromising their survival. Additionally, marine heatwaves can displace marine species by altering their preferred temperature ranges, forcing them to move to cooler waters.

Source: [DD News](#)

9. Correct Answer is (B)

- Statements 1 and 3 are incorrect. Tropical cyclones in the Indian Ocean are primarily influenced by easterly winds. Cyclones are more frequent in the Bay of Bengal because of higher humidity levels, warmer sea surface temperatures, and other favourable conditions for cyclone formation.
- Statement 2 is correct. The Coriolis force is weak near the equator, which makes it difficult for cyclones to form in that region.

Source: [The Hindu](#)

10. Correct Answer is (B)

- Statement 1 is incorrect. Galathea Bay is located on Great Nicobar Island in the Andaman and Nicobar Islands of India.
- Statement 2 is correct. The new international container transshipment port (ICTP) at Galathea Bay on Great Nicobar Island has been designated as India's 13th major port. The ICTP will be situated on the East-West international trade route, close to major transshipment hubs like Singapore, Klang, and Colombo. It aims to capture cargo from Indian east coast ports, as well as Bangladesh and Myanmar.

Source: [The Hindu](#)

11. Correct Answer is (C)

- Statements 1 and 3 are correct. The Tungabhadra River is formed by the confluence of the Tunga and Bhadra rivers, both of which originate in the Western Ghats in Karnataka. The river holds both historical and cultural importance, particularly because it passes through Hampi, a UNESCO World Heritage site renowned for its ancient temples and ruins.
- Statements 2 and 4 are incorrect. The Tungabhadra River flows through Karnataka and Andhra Pradesh and ultimately merges with the Krishna River. The South-West monsoon is the primary source of water for the Tungabhadra River.

Source: [The Hindu](#)

Polity

12. Correct Answer is (A)

- Statement 1 is correct. The Assam Accord is a significant political agreement signed on August 15, 1985, between the Government of India, the Government of Assam, and leaders of the All-Assam Students' Union (AASU) and the All Assam Gana Sangram Parishad (AAGSP). It was a response to the Assam Movement, a six-year-long agitation demanding the detection and deportation of illegal immigrants in Assam, primarily from Bangladesh.
- Statement 2 is incorrect. Section 6A does not grant citizenship to those who entered Assam after March 25, 1971. Instead, it mandates that such individuals be detected and deported. It is a special provision that was introduced following the Assam Accord of 1985.

Source: [The Hindu](#)

13. Correct Answer is (C)

- The National Pharmaceutical Pricing Authority (NPPA) operates under the Ministry of Chemicals and Fertilizers. It is a government agency in India responsible for regulating the prices of pharmaceutical drugs and medical devices to ensure they are affordable and accessible to the public. It periodically adjusts drug prices based on changes in the Wholesale Price Index (WPI) to reflect economic conditions.

Source: [The Hindu](#)

14. Correct Answer is (B)

- Under the New Drugs and Clinical Trial (NDCT) Rules, 2019, a "new drug" is defined as a drug that has not been used significantly in India. This means it is relatively new to the Indian market and lacks substantial usage data within the country.

Source: [The Hindu](#)

15. Correct Answer is (C)

- Third-Party Litigation Funding (TPLF) provides financial support to individuals or groups who might not have the resources to pursue legal action against more powerful entities. This levels the playing field and ensures access to justice, especially for those who are economically disadvantaged. TPLF refers to the practice where an external party, not involved in a legal case, provides financial support to one of the parties involved in the litigation. This funding helps cover legal costs, such as attorney fees and court expenses. This allows individuals or groups who might not otherwise afford to pursue their claims in court. The Supreme Court of India, in the landmark case Bar Council of India v. A.K. Balaji, acknowledged TPLF as permissible, provided that lawyers themselves are not financing the litigation. Some Indian states like Maharashtra, Madhya Pradesh, Orissa, and Gujarat have amended their civil procedure codes to recognize third-party financiers formally.

Source: [The Hindu](#)

16. Correct Answer is (B)

- **Detention without legal authority:** If a person is detained without proper legal justification or authority, they can petition for a writ of habeas corpus to challenge the legality of their detention.
- **Arrest without producing before a magistrate within 24 hours:** In India, there's a legal requirement to produce an arrested person before a magistrate within 24 hours. Failure to do so violates procedural safeguards and could be grounds for a habeas corpus petition.
- **Detention beyond the period of sentence:** If a person is held in custody beyond their court-mandated sentence, this becomes an illegal detention. Habeas corpus can be invoked to secure their release.
- However, when a person is lawfully imprisoned after being convicted by a competent court, the detention is considered legitimate and in accordance with established legal procedures.

Source: [The Hindu](#)

17. Correct Answer is (B)

- Statement 1 is incorrect. The NHRC is a statutory body. It was established under the Protection of Human Rights Act, 1993, which gives it a statutory basis.
- Statements 2 and 3 are correct. The Chairperson of the NHRC must be a former Chief Justice of India or a former Judge of the Supreme Court, not a sitting Chief Justice of a High Court. One of the functions of the NHRC is to study treaties and international instruments on human rights and make recommendations for their effective implementation.

Source: [The Hindu](#)

18. Correct Answer is (B)

- The Supreme Court of India recently unveiled a new 'Lady Justice' statue, replacing the old one. This new statue reflects a shift away from colonial symbols and aligns more closely with Indian values. Key changes are:
 - **Saree Attire:** The statue wears a saree, representing Indian culture, instead of Western attire.
 - **Open Eyes:** The absence of the blindfold represents a commitment to transparency and a justice system that is conscious of and responsive to the diverse social contexts and realities in India. It signifies that justice is aware and considers all perspectives fairly.
 - **Constitution Instead of Sword:** The statue holds the Indian Constitution instead of a sword, emphasizing the importance of democratic principles and human rights over punitive measures.
 - **Retained Scales:** The scales remain, symbolizing balance and impartiality in weighing evidence and arguments.

Source: [The Hindu](#)

19. Correct Answer is (D)

- In India, secularism means that the state remains neutral in religious matters, ensuring that no religion is officially endorsed or favoured. This principle ensures equal treatment and respect for all religions, allowing individuals the freedom to practice, profess, and propagate their faith without state interference. The government does not interfere in religious practices unless they infringe upon laws or rights.

Source: [The Hindu](#)

20. Correct Answer is (B)

- The Sixth Schedule of the Indian Constitution provides for autonomous governance in certain tribal areas of Assam, Meghalaya, Tripura, and Mizoram. This autonomy is primarily exercised through the establishment of Autonomous District Councils and Regional Councils, which have legislative, executive, and judicial powers to manage local affairs such as land use, inheritance laws, and social customs.

Source: [The Hindu](#)

21. Correct Answer is (D)

- Statements 1 and 2 are incorrect. Directive Principles of State Policy (DPSPs) are not justiciable, meaning they cannot be enforced by the courts if there is a violation. Fundamental Rights are justiciable and can be enforced legally by the courts. State governments cannot legislate on matters in the Union List, even with the President's consent. The Union List is reserved for subjects of national importance, and only Parliament has the authority to legislate on these matters. The Union can legislate on matters in the State List not only during emergencies but also under specific circumstances such as when two or more states consent to Parliament making laws on a state subject or when there is President's Rule in a state.

Source: [The Hindu](#)

22. Correct Answer is (B)

- Statement 1 is incorrect. The National Commission for Women was established under the National Commission for Women Act, 1990, not specifically under Article 39A. Article 39A pertains to providing free legal aid and ensuring justice, which aligns with NCW's objectives but is not its primary constitutional basis.
- Statements 2 and 3 are correct. The NCW have powers similar to those of a civil court, such as summoning and enforcing the attendance of witnesses, requiring the discovery and production of documents, and receiving evidence on affidavits. The term for the Chairperson of the NCW is three years or until they reach the age of 65, whichever comes first.

Source: [AIR](#)

23. Correct Answer is (B)

- Statement 1 is incorrect. Article 23 of the Indian Constitution prohibits human trafficking and forced labour. Religious instruction is addressed in Article 28, which deals with the provision of religious education in state-funded institutions.
- Statement 2 is correct. In India, private schools run by religious organizations can provide religious education alongside other subjects. These institutions are typically established to preserve and propagate their respective religious teachings and cultural values.

Source: [The Hindu](#)

Acts & Policies

24. Correct Answer is (A)

- Statement 1 is correct. The IndiaAI Mission is a comprehensive initiative by the Indian government aimed at strengthening India's position in the global AI landscape through research, development, and application of AI technologies.
- Statement 2 is incorrect. The IndiaAI Compute Capacity is designed to build a high-end scalable AI computing ecosystem to support India's expanding AI startups and research ecosystem. It focuses on providing infrastructure and resources to foster AI innovation.

Source: [AIR](#)

25. Correct Answer is (A)

- Statement 1 is correct. Mission Karmayogi is designed to create a competent civil service rooted in Indian ethos, with a shared understanding of India's priorities, working in harmonization for effective public service delivery.
- Statement 2 is incorrect. The iGOT-Karmayogi platform is a comprehensive online learning platform aimed at guiding civil service officials in their capacity-building journey. It focuses on online learning, competency management, career management, and discussions.

Source: [The Hindu](#)

26. Correct Answer is (D)

- Statements 1 and 3 are correct. Mission Mausam aims to integrate advanced technologies like artificial intelligence (AI) and machine learning (ML) to improve weather forecasting accuracy and timeliness. The deployment of next-generation radars and satellite systems with advanced sensors is a key component of the mission, aimed at significantly improving weather observation and forecasting.
- Statement 2 is incorrect. The mission is implemented by the Ministry of Earth Sciences, specifically through the India Meteorological Department (IMD), the Indian Institute of Tropical Meteorology, and the National Centre for Medium-Range Weather Forecasting.

Source: [The Hindu](#)

27. Correct Answer is (B)

- Statement 1 is incorrect. The primary objective of the UDAN Scheme is to make air travel affordable and accessible by enhancing regional connectivity, particularly to underserved and unserved airports. The main focus is on making air travel affordable for the common citizen and improving connectivity rather than specifically promoting low-cost airlines.
- Statement 2 is correct. The UDAN Scheme includes a provision for Viability Gap Funding (VGF) to support airlines. This funding helps cover the difference between operational costs and expected revenue on less lucrative routes, making it financially viable for airlines to operate in these areas.

Source: [The Hindu](#)

Index & Reports

28. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. The Global Hunger Index (GHI) is designed to measure and track hunger at global, regional, and national levels, providing a comprehensive assessment of hunger situations worldwide. The GHI score is based on four indicators: undernourishment, child stunting, child wasting, and child mortality. The 2024 GHI ranks India 105th out of 127 countries, placing it in the "serious" category for hunger with a score of 27.3.

Source: [The Hindu](#)

29. Correct Answer is (A)

- Statement 1 is correct. The HDI was developed by the United Nations Development Programme (UNDP) as a composite measure to assess the average achievement in key dimensions of human development, including life expectancy, education, and income.
- Statement 2 is incorrect. According to the Human Development Report 2023-24, India is classified in the medium human development category.

Source: [The Hindu](#)

International Relations/Organizations

30. Correct Answer is (B)

- Statement 1 is incorrect. The Five Eyes alliance consists of Australia, Canada, New Zealand, the United Kingdom, and the United States.
- Statement 2 is correct. The Five Eyes alliance primarily focuses on signals intelligence (SIGINT). It involves intercepting and analyzing electronic communications.

Source: [The Hindu](#)

31. Correct Answer is (B)

- Statement 1 is incorrect. The Battle of Walong took place near the town of Walong in Arunachal Pradesh.
- Statement 2 is correct. The Battle of Walong was the only counterattack launched by Indian forces during the 1962 war with China.

Source: [The Hindu](#)

32. Correct Answer is (A)

- Statements 1 and 2 are correct. The ISA is the first treaty-based inter-governmental organization specifically focused on promoting solar energy. It was established to facilitate the efficient consumption of solar energy and reduce dependence on fossil fuels. The ISA Assembly is the apex decision-making body of the organization, where representatives from each member country make important decisions regarding the implementation and objectives of the ISA.
- Statement 3 is incorrect. One Sun One World One Grid (OSOWOG) is a key initiative under the ISA.

Source: [AIR](#)

33. Correct Answer is (B)

- Statements 1 and 2 are correct. India contributes to the Quad's strategic objectives, including cybersecurity. The Quad has established initiatives like the Quad Cybersecurity Partnership, which aims to enhance cybersecurity defenses through information sharing and capacity building in the Indo-Pacific region. The Malabar exercise, which involves India, the U.S., Japan, and Australia, is a key naval drill linked to the Quad.
- Statement 3 is incorrect. The Quad is an informal strategic dialogue, not a treaty-based organization. It doesn't have a formal structure, presidency, or rotating leadership.

Source: [The Hindu](#)

34. Correct Answer is (D)

- Statements 1 and 3 are incorrect. The term "shadow fleet" refers to a group of vessels engaged in deceptive shipping practices, often used to transport sanctioned goods like Russian oil. This is done by hiding their origins and ownership through tactics such as disabling tracking systems and using flags of convenience. The International Maritime Organization (IMO) is a United Nations agency responsible for regulating maritime safety, security, and environmental standards for international shipping. However, it does not regulate international trade.
- Statement 2 is correct. Flags of Convenience allow ship owners to register their vessels in countries with lenient regulations, lower taxes, and minimal oversight, which can reduce operating costs and obscure the true ownership of the ships.

Source: [The Hindu](#)

35. Correct Answer is (D)

- The most significant power India would gain with permanent membership in the United Nations Security Council (UNSC) is veto power over substantive resolutions. Permanent members of the UNSC, known as the P5 (China, France, Russia, the United Kingdom, and the United States), have the power to veto any substantive resolution. This means they can block any decision or action proposed by the Council, regardless of international support. Gaining veto power would allow India to have a decisive influence on international peace and security decisions.

Source: [AIR](#)

36. Correct Answer is (B)

- Statements 1 and 2 are correct. The IMF is a major financial agency that is considered a specialized agency of the United Nations, which means it cooperates closely with the UN but operates independently. The IMF is regarded as the global lender of last resort, providing financial assistance to countries facing balance of payments problems.
- Statements 3 and 4 are incorrect. Special Drawing Rights (SDRs) are not loans but rather an international reserve asset created by the IMF to supplement member countries' foreign exchange reserves. The IMF publishes the World Economic Outlook (WEO) biannually, which provides economic forecasts.

Source: [The Hindu](#)

37. Correct Answer is (C)

- BRICS represents a coalition of emerging economies with the geopolitical aim of reforming global governance structures traditionally dominated by Western powers. It seeks to provide a counter-narrative to Western-centric institutions like the G7 by advocating for a more multipolar world order.

Source: [The Hindu](#)

Economy

38. Correct Answer is (B)

- Statements 1 and 3 are correct. MSP is a market intervention by the Indian government to protect farmers from significant price drops in agricultural products. Currently, MSP does not have statutory backing, meaning it is not legally enforceable.
- Statement 2 is incorrect. The MSP is recommended by the Commission for Agricultural Costs and Prices (CACP).

Source: [The Hindu](#)

39. Correct Answer is (B)

- The key feature of the T+1 settlement cycle is that the transactions are settled one business day after the trade. This means that when a trade is executed, the actual transfer of securities and funds occurs on the next business day following the transaction date.

Source: [AIR](#)

40. Correct Answer is (B)

- UBI is a socio-political financial transfer policy where every citizen of a country receives a regular, unconditional sum of money from the government. This payment is universal, meaning it is given to all citizens regardless of their income, resources, or employment status. The goal of UBI is to ensure a basic level of income for everyone, reducing poverty and increasing equality among citizens.

Source: [The Hindu](#)

41. Correct Answer is (B)

- When foreign investors sell off Indian stocks and repatriate their money, they convert INR into foreign currencies. This leads to a decrease in demand for the rupee and subsequent depreciation.

Source: [The Hindu](#)

42. Correct Answer is (A)

- **Statement-I:** India is becoming a key player in global supply chains, especially in electronics manufacturing.
- **Statement-II:** India has launched Production Linked Incentive (PLI) schemes for the manufacturing sectors. The PLI schemes are designed to boost manufacturing, including electronics, by providing financial incentives to companies to increase production and enhance India's role in global supply chains.
- **Statement-III:** India has a large, skilled workforce that supports its growing manufacturing sector. India's large and skilled workforce is a significant factor in supporting its expanding manufacturing sector, particularly in electronics.
- Therefore, both Statement-II and Statement-III are correct and both of them explain why India is becoming a key player in global supply chains, especially in electronics manufacturing. The PLI schemes incentivize production growth, while the skilled workforce supports this expansion.

Source: [The Hindu](#)

43. Correct Answer is (A)

- **Monetary Policy:** Monetary policy involves tools such as interest rate adjustments and open market operations, not tax cuts and public spending.
- **Fiscal Policy:** Fiscal policy involves government spending and taxation decisions, not interest rate adjustments. Interest rate adjustments are a tool of monetary policy.
- **Structural Reforms:** Structural reforms often involve changes like deregulation and labour market reforms, aimed at improving the efficiency and productivity of the economy, thereby increasing long-term economic growth.

Source: [The Hindu](#)

Environment

44. Correct Answer is (B)

- Statements 1 and 3 are correct. Green methanol can reduce carbon dioxide emissions by up to 95% compared to conventional fuels. Green methanol can store excess renewable energy and be used later to generate electricity or as a fuel. It acts as an energy carrier, allowing for the storage and transport of energy generated from renewable sources. Green methanol can be used as low-carbon fuel in green shipping.
- Statement 2 is incorrect. Green methanol production often involves the use of green hydrogen, which is produced from renewable energy sources. Green hydrogen is a key component in synthesizing green methanol, as it combines with carbon dioxide to form methanol.

Source: [AIR](#)

45. Correct Answer is (A)

- Statement 1 is correct. Namdapha National Park in Arunachal Pradesh is noted for having the highest diversity of butterfly species in India. Kaziranga National Park has the second highest diversity of butterfly species in India.
- Statement 2 is incorrect. While Kaziranga National Park is a significant habitat for one-horned rhinoceroses, it is not the only habitat for these animals in India.

Source: [AIR](#)

46. Correct Answer is (C)

- Statements 1 and 3 are correct. National Green Hydrogen Mission seeks to significantly reduce carbon emissions across various sectors by promoting the use of green hydrogen. Green hydrogen can be utilized in industries like steel-making to reduce carbon emissions.
- Statement 2 is incorrect. Green hydrogen is valued for its potential to achieve net-zero emissions because it is produced using renewable energy sources.

Source: [DD News](#)

47. Correct Answer is (C)

- The relationship between corals and zooxanthellae under normal conditions is best described as symbiotic. This is because zooxanthellae, which are photosynthetic algae, live inside the coral's tissues and provide nutrients through photosynthesis. In return, the coral provides the algae with shelter and access to sunlight, creating a mutually beneficial relationship.

Source: [DD News](#)

48. Correct Answer is (B)

- Enhanced rock weathering involves spreading finely crushed silicate rocks over land, where they chemically react with atmospheric CO₂ to form stable bicarbonates. This process helps sequester carbon dioxide, thereby reducing greenhouse gases in the atmosphere.

Source: [The Hindu](#)

49. Correct Answer is (D)

- Statements 1 and 4 are correct. Climate finance is intended to support both mitigation (reducing emissions) and adaptation (adjusting to impacts) efforts related to climate change. This includes investments in renewable energy, sustainable infrastructure, and resilience-building projects. The NCQG is being developed to establish a new financial target beyond the existing \$100 billion annual commitment, aiming to better address the needs of developing countries in their climate action efforts post-2025.
- Statements 2 and 3 are incorrect. Climate finance can come from a variety of sources, including both public and private sectors. Public sources include government budgets and international aid, while private sources involve investments from businesses and philanthropic contributions. While the UNFCCC provides the framework and guidelines for climate finance, it does not directly track these flows. Organizations like the Organisation for Economic Co-operation and Development (OECD) are responsible for tracking and reporting on climate finance flows.

Source: [The Hindu](#)

50. Correct Answer is (C)

- Statements 1, 2 and 3 are correct. Desertification significantly contributes to land degradation in India, affecting large areas and causing issues like soil erosion and loss of productivity. SDG 15 aims to protect ecosystems, combat desertification, halt land degradation, and promote sustainable use of terrestrial resources. Conservation agriculture focuses on minimizing soil disturbance, maintaining soil cover, and diversifying crops to improve soil health and reduce degradation.

Source: [The Hindu](#)

51. Correct Answer is (A)

- Statement 1 is correct. The Kunming-Montreal Global Biodiversity Framework aims to halt and reverse biodiversity loss by 2030.
- Statements 2 and 3 are incorrect. The "30x30" target refers to conserving at least 30% of terrestrial and marine areas by 2030. The framework includes commitments to increase financial flows from developed to developing countries, recognizing the need for support in biodiversity efforts. It does not place a greater financial burden on developing countries.

Source: [DD News](#)

52. Correct Answer is (B)

- Statement 1 is incorrect. The species under the genus Tenkana are endemic to southern India. Tenkana spiders are found in the southern states of India, such as Andhra Pradesh, Karnataka, Kerala, Tamil Nadu, and Telangana, as well as in northern Sri Lanka.
- Statement 2 is correct. Tenkana spiders are jumping spiders known to prefer drier areas and ground habitats. They are often found in shaded short grasses with dry leaf litter or in open, sunny areas with sparse grasses near rocky outcrops.

Source: [The Hindu](#)

53. Correct Answer is (C)

- Under Stage 2 of the Graded Response Action Plan (GRAP), specific measures are introduced to control air pollution when the Air Quality Index (AQI) levels fall into the "very poor" category (AQI between 301 and 400). Under Stage 2 of GRAP, measures include increasing water sprinkling on roads to control dust pollution and enhancing public transport services. These actions aim to reduce dust and encourage people to use public transport instead of private vehicles, thereby reducing vehicular emissions.

Source: [The Hindu](#)

54. Correct Answer is (A)

- Statements 1 is correct. The National Green Hydrogen Mission, launched by the Indian government, aims to make India a global hub for the production, usage, and export of green hydrogen. The mission includes significant investments and targets for green hydrogen production by 2030.
- Statement 2 is incorrect. While green hydrogen combustion does not produce carbon dioxide, it can produce nitrogen oxides (NO_x), which are pollutants that can have harmful environmental and health effects.

Source: [AIR](#)

Science & Technology

55. Correct Answer is (C)

- Statements 1 and 3 are correct. Both miRNAs and mRNAs are made of ribonucleic acid (RNA) and composed of the same four nitrogenous bases: adenine (A), guanine (G), cytosine (C), and uracil (U). mRNAs are significantly longer, ranging from hundreds to thousands of bases, while miRNAs are typically around 20-22 bases long. mRNA serves as a messenger that carries genetic instructions from DNA to the ribosomes, the cell's protein-making machinery. It tells the ribosomes which proteins to make and in what order. miRNAs are small RNA molecules that regulate gene expression. They do this by binding to mRNAs and either blocking their translation into proteins or marking them for destruction.
- Statement 2 is incorrect. mRNA carries genetic information from DNA to ribosomes for protein synthesis and is not involved in carbohydrate synthesis.

Source: [The Hindu](#)

56. Correct Answer is (C)

- Non-kinetic warfare involves strategies that do not rely on physical force but aim to disrupt or influence the enemy. Examples include: Cyber Attacks, Misleading Campaigns, Economic Disruptions, Electronic Warfare.

Source: [The Hindu](#)

57. Correct Answer is (B)

- The primary purpose of the Indian Navy's Next Generation Missile Vessels (NGMVs) is anti-surface warfare. These vessels are designed to provide offensive capabilities against enemy warships, merchant vessels, and land targets. NGMVs are designed with advanced stealth features, including a low radar cross-section (RCS) and reduced infrared, acoustic, and magnetic signatures. These features make the vessels harder to detect by enemy surveillance systems.

Source: [The Hindu](#)

58. Correct Answer is (B)

- Statement 1 is incorrect. Kala-azar, also known as visceral leishmaniasis, is caused by a protozoan parasite called Leishmania donovani, transmitted through the bite of infected female sandflies. It primarily affects internal organs like the liver, spleen, and bone marrow.
- Statement 2 is correct. The WHO has set targets for eliminating Kala-azar as part of its Neglected Tropical Diseases (NTD) roadmap. India is on the verge of eliminating Kala-azar as a public health issue. This meets the World Health Organization's (WHO) criteria for elimination certification.

Source: [The Hindu](#)

59. Correct Answer is (B)

- Neural networks in AI are designed to simulate the way the human brain processes information. They consist of layers of interconnected nodes (neurons) that can learn from data, recognize patterns, and improve their performance over time through training.

Source: [The Hindu](#)

60. Correct Answer is (C)

- Statements 1 and 3 are correct. INS Arihant is India's first indigenously developed nuclear-powered ballistic missile submarine. India has recently launched its fourth nuclear-powered ballistic missile submarine, known as S4*. This submarine is larger and more advanced than India's first such submarine, INS Arihant.
- Statement 2 is incorrect. China also possesses nuclear-powered ballistic missile submarines, making India not the only Asian country with such capabilities.

Source: [The Hindu](#)

