

# 10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

January, 2025 2nd Week

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# **Art & Culture and Ancient India**

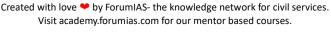
- Q.1) Consider the following statements:
- 1. The Indus Valley Civilisation (IVC) was an Iron Age civilisation.
- 2. The IVC had a larger geographical area than the Egyptian and Mesopotamian civilisations combined.
- 3. The IVC was situated along ancient migration routes connecting Central and Western Asia to India. How many of the statements given above are correct?
- a) Only one
- b) Only two
- c) All three
- d) None
- Q.2) Which one of the following is a key characteristic that differentiates graffiti from script in the context of ancient inscriptions?
- a) Graffiti contains structured and complex grammar, while script is primarily made up of simple drawings.
- b) Graffiti marks were usually engraved on informal materials like pottery, while script was inscribed on formal items like seals or tablets.
- c) Graffiti is exclusively related to religious contexts, while script is always administration.
- d) Graffiti and script are both identical and interchangeable terms in archaeological studies.
- Q.3) Who among the following confers the Pravasi Bharatiya Samman Award?
- a) The Prime Minister of India
- b) The Minister of External Affairs
- c) The President of India
- d) The Chief Justice of India
- Q.4) Consider the following pairs:

Crafts-----Features

- 1. Kalamkari paintings----- Rounded edges and no sharp corners
- 2. Kanjeevaram silk----- Bright colours and elaborate designs
- 3. Etikopakka wooden dolls----- Intricate hand-painted or block-printed patterns

How many of the above pairs are correctly matched?

- a) Only one pairs
- b) Only two pairs
- c) All three pairs
- d) None of the pairs
- Q.5) Maharishi Agasthyar is credited with which one of the following contributions to Indian tradition?
- a) Establishing the first Vedic Ashram in the northern Himalayan region
- b) Introducing the Tamil language and grammar to South India
- c) Writing the Arthashastra
- d) Propagating the teachings of the Bhagavad Gita
- Q.6) Which one of the following famous Tamil literary works was authored by Thiruvalluvar?
- a) Silappatikaram
- b) Sangam literature
- c) Thirukkural
- d) Ramayanam





# **Modern Indian History**

- Q.7) Consider the following statements regarding the Girmitiya labour system:
- 1. It refers to indentured labourers from British India who were transported to various British colonies to work on plantations in the 19th and early 20th centuries.
- 2. The Girmitiya labour system was primarily a response to the Britain's policy to expand Indian overseas trade.

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.8) The term 'nautor' refers to:
- a) A traditional system of irrigation used in arid regions
- b) A method of land leasing for agriculture in mountainous regions
- c) A system of land cultivation on government owned land
- d) A legal mechanism for granting land rights in the tribal areas of India

# **Geography**

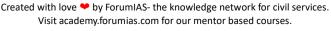
- Q.9) Consider the following statements:
- 1. The Interlinking of Rivers (ILR) is aimed at addressing India's water challenges by transferring water from surplus river basins to deficit areas.
- 2. The ILR is implemented under the National Perspective Plan (NPP).
- 3. National Interlinking of Rivers Authority (NIRA) is the nodal agency responsible for implementing ILR projects.

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
- $Q.10) \ Kandla \ Port, also \ known \ as \ Deenday al \ Port, holds \ a \ strategic \ position \ in \ India's \ maritime \ trade. \ Which \ of the following \ statements \ about \ Kandla \ Port \ are \ correct?$
- 1. It is situated on the eastern coast of India.
- 2. It primarily handles petroleum products, chemicals, and grains.
- 3. It was the first port in India to be developed after independence.

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.11) It is a primitive and hazardous coal extraction method in northeastern India, involving narrow, shallow tunnels just large enough for one person to crawl through to access coal seams. This description corresponds to which one of the following coal mining techniques?
- a) Open-cast mining
- b) Longwall mining
- c) Strip mining
- d) Rat-hole mining





# Q.12) Consider the following statements:

- 1. The Z-Morh Tunnel is a 6 km-long, two-lane tunnel connecting Srinagar with Leh.
- 2. The Z-Morh Tunnel is part of the Zojila Tunnel.

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.13) Consider the following statements:

- 1. Mongolia is an island nation in the Pacific Ocean.
- 2. Mongolia is rich in deposits of copper and coking coal.

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.14) The Maternal Mortality Ratio (MMR) is defined as:

- a) The number of live births per 1,000 women of childbearing age in a given year.
- b) The number of maternal deaths per 100,000 live births within a specific time period.
- c) The percentage of women who die during childbirth annually.
- d) The number of maternal deaths per 1,000 pregnancies in a given year.

# Q.15) Consider the following statements regarding the country Greenland:

- 1. It lies between the Arctic and Atlantic Oceans.
- 2. It is the world's largest island.
- 3. Bering strait separates Greenland from Canada.

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.16) Consider the following statements:

- 1. Diego Garcia island has the world's largest coral reef.
- 2. Diego Garcia is currently administered as part of British Indian Ocean Territory.

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

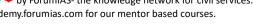
#### Q.17) Consider the following pairs:

Areas-----Geopolitical Features

- 1. Line of Actual Control (LAC)-----Frequent clashes such as those in Doklam and Galwan Valley
- 2. Line of Control (LoC)-----Lifeline for India's northeastern states
- 3. Siliguri Corridor ------Includes the Siachen Glacier and has ongoing ceasefire violations 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

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Q.18) With reference to the India Meteorological Department (IMD), consider the following statements:

- 1. The organisation was set up by the provincial British government in the country.
- 2. It was originally headquartered in Madras.
- 3. It is a member of the World Meteorological Organisation.
- 4. It keeps track of atmospheric pollution in the country.

Which of the statements given above are correct?

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

Q.19) Lesotho is entirely surrounded by which one of the following countries?

- a) Namibia
- b) Zimbabwe
- c) Botswana
- d) South Africa

Q.20) Consider the following statements regarding the National Turmeric Board:

- 1. It aims to promote development and growth of turmeric and turmeric products in India.
- 2. The headquarters of the Board is located in New Delhi.
- 3. Ministry of Agriculture is the nodal ministry for the Board.
- 4. It will work closely with the Spices Board of India to enhance coordination and development efforts for the turmeric sector.

How many of the statements given above are correct?

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

# **Polity**

Q.21) Which of the following is correct regarding the differences between NRIs (Non-Resident Indians) and PIOs (People of Indian Origin)?

- 1. NRIs hold Indian citizenship and reside outside India, while PIOs are foreign citizens of Indian origin.
- 2. NRIs can vote in Indian elections, whereas PIOs cannot.
- 3. NRIs are Indian citizens by birth, whereas PIOs acquire citizenship through long-term residency in India.
- 4. NRIs are foreign nationals who previously held Indian citizenship, whereas PIOs are Indian citizens by birth.

Select the correct answer using the codes given below:

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

Q.22) Consider the following statements:

- 1. The Election Commission of India is a constitutional body.
- 2. The Chief Election Commissioner has the same removal procedure as a Supreme Court judge.

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

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

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# Q.23) Consider the following statements:

- 1. National Youth Festival 2025 emphasizes the role of young people as key drivers of global change and aligns with India's commitment to the United Nations' Sustainable Development Goals (SDGs).
- 2. Mera Yuva Bharat (MY Bharat) is an autonomous body under the Ministry of Youth Affairs and Sports responsible for shaping and guiding the National Youth Festival.

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.24) Consider the following statements:

- 1. Article 5 of the Constitution defines citizenship based on birth, parentage, or residency, and does not permit dual citizenship.
- 2. Article 9 of the Constitution states that any person who voluntarily acquires citizenship of another country ceases to be an Indian citizen.

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) Which one of the following organizations is responsible for giving regulatory approval to the medial devices in India?
- a) Indian Council of Medical Research (ICMR)
- b) Central Drugs Standard Control Organization (CDSCO)
- c) National Pharmaceutical Pricing Authority (NPPA)
- d) All India Institute of Medical Sciences (AIIMS)

# Q.26) Consider the following statements:

- 1. At least 5 years' experience as a High Court judge is required to be appointed as a judge of the Supreme Court.
- 2. National Judicial Appointments Commission (NJAC) is responsible for the appointment of Supreme Court judges.
- 3. The term 'distinguished jurist' in Supreme Court appointments describes a senior lawyer with at least two decades of practice.

How many of the statements given above are correct?

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

# **Acts & Policies**

- Q.27) With reference to the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN) scheme, consider the following statements:
- 1. It focuses on improving the socio-economic conditions of Particularly Vulnerable Tribal Groups (PVTGs).
- 2. One of its aims is to improve urban infrastructure in tribal areas.

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

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

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#### Q.28) Consider the following:

- 1. Infrastructure development
- 2. Skill enrichment training
- 3. Promotion of green shipping
- 4. Upgrading traditional knowledge of rivers

How many of the above are the components of the Riverine Community Development Scheme (RCDS)?

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

Q.29) Which one of the following ministries is responsible for implementing the (Scheme for the Economic Empowerment of DNT/NT/SNT communities) SEED scheme?

- a) Ministry of Agriculture and Farmers Welfare
- b) Ministry of Social Justice & Empowerment
- c) Ministry of Rural Development
- d) Ministry of Tribal Affairs

Q.30) With reference to the National Electoral Rolls Purification and Authentication Program (NERPAP), which of the following statements is/are correct?

- 1. It aims to create a common database for voter ID cards and Permanent Account Number (PAN) cards.
- 2. The Election Commission of India (ECI) is responsible for implementing NERPAP.

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.31) With reference to Mission Mausam, consider the following statements:

- 1. The mission aims to enhance India's capacity for accurate weather forecasting, disaster management, and climate resilience.
- 2. Ministry of Science and Technology is responsible for implementing Mission Mausam.
- 3. It will enhance air quality forecasting in metro cities.

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.32) The primary objective of the Bhashini Platform is to:

- a) Promote cultural exchange between India and other countries
- b) Create private paid tools for machine translation in foreign languages
- c) Enable AI-based translation services in Indian languages for digital inclusion
- d) Regulate English language publications by Indian authors

# **International Relations/Organizations**

Q.33) SAGAR (Security and Growth for All in the Region) initiative aligns with which other Indian foreign policy approaches?

- a) Look East Policy and Project Mausam
- b) Act East Policy and Project Sagarmala
- c) Neighborhood First Policy and Indian Ocean Rim Association
- d) Make in India and Digital India

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Q.34) Consider the following statements:

- 1. The European Council is one of the key institutions of the European Union (EU).
- 2. The European Council is part of the Council of the European Union.
- 3. The European Council represents the interests of individual member states.

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

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

Q.35) Which one of the following treaties laid the foundation for the 'Tin Bigha Corridor Agreement' between Indian and Bangladesh?

- a) The Ganga Water Treaty
- b) The Land Boundary Agreement
- c) The Indus Waters Treaty
- d) The Chittagong Hill Tracts Peace Accord

Q.36) The purpose of issuing 'Silver Notice' by the Interpol is to:

- a) Trace and recover criminal assets laundered across international borders.
- b) Locate missing persons or identify individuals unable to identify themselves.
- c) Issue an international arrest warrant for fugitives wanted for extradition.
- d) Warn about imminent threats to public safety, such as dangerous objects or events.

Q.37) India and the US recently agreed to co-produce sonobuoys for anti-submarine warfare. This aligns with which of the following initiatives?

- 1. Make in India
- 2. Initiative on Critical and Emerging Technologies (ICET)
- 3. Atmanirbhar Bharat (self-reliant India)

Select the correct answer using the codes given below:

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

Q.38) With reference to the UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD), consider the following statements:

- 1. It is a specialized body established by the United Nations Statistical Commission.
- 2. It aims to replace traditional statistical methods with artificial intelligence-based models.
- 3. It emphasizes the use of big data for achieving Sustainable Development Goals (SDGs).

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 correctly explains "China+1" strategy?

- a) A diplomatic initiative by China to collaborate with one additional country for trade agreements.
- b) A Chinese government policy aimed at increasing trade with one specific neighbouring country.
- c) A business strategy where companies diversify their supply chains by adding operations in other countries alongside China.
- d) A global initiative to replace Chinese manufacturing with industries in a single alternative country.





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# **Economy**

- Q.40) Which of the following food grains are primarily distributed under the Public Distribution System (PDS) in India?
- a) Rice, wheat, and pulses
- b) Wheat, rice, and sugar
- c) Rice, wheat, and coarse grains
- d) Wheat, sugar, and edible oil

# Q.41) Consider the following statements:

- 1. The Reserve Bank of India (RBI) purchases gold as a hedge against inflation and to reduce foreign currency risks.
- 2. The Reserve Bank of India (RBI) uses its gold reserves to manage foreign currency risks by using gold to repay foreign debt.

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.42) Consider the following statements:

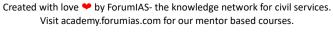
- 1. India uses the Wholesale Price Index (WPI) as GDP deflator.
- 2. The GDP deflator is based on consumer spending, while the Consumer Price Index (CPI) includes business investments.

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

- a) Only 1
- b) Only 2
- c) Both 1 and 2
- d) Neither 1 nor 2
- Q.43) Which one of the following steps might the Reserve Bank of India (RBI) take to stabilize the rupee when it is depreciating rapidly?
- a) Sell US dollars in the forex market
- b) Buy US dollars in the forex market
- c) Increase repo rates
- d) Lower statutory liquidity ratio (SLR)
- Q.44) Which of the following factors have contributed to the recent fall of the Indian Rupee against the US Dollar?
- 1. Decrease in US interest rates
- 2. Increase in global oil prices
- 3. Reduction in India's export demand
- 4. Strengthening US Dollar

Select the correct answer using the codes given below:

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





Q.45) Which of the following forms the part of Direct Taxes?

- 1. Income Tax
- 2. Goods and Services Tax (GST)
- 3. Corporate Tax
- 4. Customs Duty

Select the correct answer using the codes given below:

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

Q.46) Which one of the following policy measures is most likely to reduce a persistent trade deficit?

- a) Lowering import duties
- b) Promoting export-oriented industries
- c) Increasing foreign investment in domestic markets
- d) Raising interest rates to control inflation

# **Environment**

# Q.47) Consider the following:

- 1. Greenhouse Gas Emissions
- 2. Ozone Hole in the Stratosphere
- 3. El Niño
- 4. Deforestation
- 5. Earth's Orbital Changes

How many of the above factors are responsible for influencing the current climate change?

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

Q.48) With reference to Hoollongapar Gibbon Wildlife Sanctuary, consider the following statements:

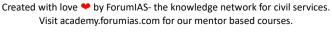
- 1. It is located in Nagaland.
- 2. It houses India's only ape species.
- 3. It is the largest sanctuary in Northeast India.

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

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

Q.49) Sada is a type of flat, rocky terrain found in the Konkan region of Maharashtra. Which one of the following types of bio-diversities is found in the region?

- a) Dense evergreen forests with tall trees
- b) Mangrove ecosystems adapted to saline conditions
- c) Species adapted to arid and nutrient-poor environments
- d) Extensive aquatic biodiversity in freshwater lakes





Q.50) Consider the following statements regarding the African tigerfish:

- 1. It is an apex predator in its ecosystem.
- 2. Amazon River basin is a common habitat for African tigerfish.
- 3. It is the first fish to be recorded attacking and catching birds in flight.
- 4. According to the IUCN Red List, African tigerfish are Endangered.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) Only three
- d) All four
- Q.51) The restoration efforts by state officials at Pallikaranai Marshland and Vettangudi Bird Sanctuary have recently led to a significant rise in the number of migratory birds visiting these locations. They are situated in:
- a) Kerala
- b) Tamil Nadu
- c) Andhra Pradesh
- d) Karnataka

## Q.52) Consider the following statements:

- 1. Spotted deer is endemic to the Western Ghats.
- 2. Spotted deer can be found in Nagarahole Tiger Reserve.

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) Consider the following statements:

- 1. Green hydrogen is a clean and sustainable form of energy produced by splitting water molecules using renewable electricity.
- 2. Currently, green hydrogen is more expensive to produce than grey hydrogen.
- 3. Nitrogen is the main byproduct of green hydrogen production through electrolysis.

Which of the statements given above are correct?

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

# Science & Technology

# Q.54) Consider the following pairs:

Space Missions-----Objectives

- 1. Shukrayaan-1----- Explore Mars' atmosphere and surface
- 2. Mangalyaan-2----- Study Venus' atmosphere and geology
- 3. Chandrayaan-4----- Lunar exploration and rover deployment

Which of the above pair(s) is/are correctly matched?

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

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Q.55) This technology involves a simple finger prick and a drop of blood placed on a test strip, similar to a COVID-19 home test, to detect iron deficiency anaemia. Which one of the following technologies is being described above?

- a) AnemiaCare
- b) AnemiaShield
- c) AnemiaPhone
- d) AnemiaTrack

Q.56) With reference to the Genome India Project, consider the following statements:

- 1. Its primary goal is to sequence the genomes of 10,000 diverse individuals across India to create a comprehensive genetic database.
- 2. Indian Council of Medical Research (ICMR) leads the Project.
- 3. RNA sequencing technology is being used in the Project.

How many of the statements given above are correct?

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

# Q.57) 'Aero India 2025' is organized by:

- a) Ministry of Civil Aviation
- b) Indian Air Force
- c) Ministry of Defence
- d) Hindustan Aeronautics Limited

#### Q.58)

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.59) The term 'DigiBoxx' was in the news recently for:

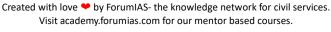
- a) Blockchain-based digital currency initiative launched by the Reserve Bank of India.
- b) Government scheme to promote the use of e-commerce among small businesses.
- c) Digital locker service for securely storing and sharing files in India
- d) Digital marketplace for trading cryptocurrencies in India.

#### Q.60) Consider the following statements:

- 1. Human cells contain 24 molecules of Deoxyribonucleic Acid (DNA).
- 2. DNA is made of three strands connected by base pairs.
- 3. When a gene is expressed, its DNA sequence is transcribed into messenger RNA (mRNA).
- 4. Exogenous DNA refers to DNA introduced from an external source and is not originally part of the cell's genome.

How many of the statements given above are correct?

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





Q.61) Blue baby syndrome, seen in the news recently, is commonly associated with:

- a) Excess fluoride in drinking water
- b) Mercury poisoning in food
- c) Air pollution in urban areas
- d) Nitrate contamination in drinking water

Q.62) Astrological and scientific views suggest that specific planetary alignments during the Maha Kumbh Mela enhance its spiritual significance. Which astronomical alignment is correct in this context?

- a) Sun, Moon, and Mars
- b) Sun, Moon, and Jupiter
- c) Sun, Venus, and Mercury
- d) Moon, Jupiter, and Saturn

Q.63) Esterase enzyme was seen in the news recently, helps in:

- a) Increasing plastic flexibility
- b) Breaking down plasticizers
- c) Converting methane into carbon dioxide and water
- d) Breaking down microplastics into reusable plastic components

Q.64) Recently, there was news about the launch of a missile featuring fire-and-forget technology. Which one of the following statements correctly describes this technology?

- a) A missile guidance system that does not require further external intervention after launch and autonomously tracks and hits its target.
- b) A technology where a missile requires continuous guidance from the operator until it hits the target.
- c) A system where the missile can only hit stationary targets due to pre-programmed trajectories.
- d) A missile system that relies on wire-guidance to maintain accuracy during flight.

Q.65) With reference to the Chief of Defence Staff (CDS), consider the following statements:

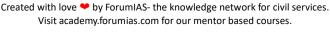
- 1. It is the highest-ranking military officer in India.
- 2. CDS heads the Department of Defence Production.
- 3. The CDS is described as first among equals with the service chiefs.
- 4. The Sarkaria Commission recommendation led the creation of the post.

How many of the statements given above are correct?

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

Q.66) Which one of the following correctly differentiates Small Language Models (SLM) with Large Language Models (LLM)?

- a) SLMs require significantly more computational resources compared to LLMs for training and inference.
- b) SLMs are designed for domain-specific tasks, while LLMs are general-purpose and trained on diverse datasets.
- c) SLMs outperform LLMs in natural language understanding tasks due to their focused architecture.
- d) SLMs are based on traditional rule-based systems, while LLMs use neural network architectures.





Q.67) Consider the following pairs:

Naval Warships------Associated Projects

- 1. INS Nilgiri-----Project 17A
- 2. INS Vaghsheer----- Project 75
- 3. INS Surat----- Project 15B

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.68) With reference to the Indian National Science Academy (INSA), consider the following statements:

- 1. It is the apex body for promoting science and technology in India.
- 2. It represents India in the International Science Council (ISC).
- 3. Shanti Swarup Bhatnagar Prize is awarded by the INSA.

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.69) Fermions and bosons are used in the relation with:

- a) A system of categorizing particles by their size
- b) A classification of particles based on their charge
- c) A method of measuring particle mass
- d) A system of classification of particles based on their spin properties

# **Answer Key**

1 - (b)	2 - (b)	3 - (c)	4 – (a)	5 – (b)	6 - (c)	7 – (a)	8 - (c)	9 - (a)	10 - (b)
11 - (d)	12 - (b)	13 - (b)	14 - (b)	15 - (a)	16 - (b)	17 - (a)	18 - (c)	19 - (d)	20 - (b)
21 - (b)	22 - (c)	23 - (c)	24 - (c)	25 - (b)	26 - (a)	27 - (a)	28 - (c)	29 - (b)	30 - (b)
31 - (c)	32 - (c)	33 - (c)	34 - (d	35 - (b)	36 - (a)	37 - (d)	38 - (b)	39 - (c)	40 - (c)
41 - (a)	42 - (d)	43 - (a)	44 - (b)	45 - (d)	46 - (b)	47 - (a)	48 - (b)	49 - (c)	50 - (b)
51 - (b)	52 - (b)	53 – (a)	54 - (c)	55 – (c)	56 - (a)	57 - (c)	58 – (a)	59 - (c)	60 - (c)
61 - (d)	62 - (b)	63 - (b)	64 - (a)	65 - (b)	66 - (b)	67 - (d)	68 - (a)	69 - (d)	

# **Answers & Explanations**

#### **Art & Culture and Ancient India**

- 1. Correct Answer is (B)
- Statement 1 is incorrect. The Indus Valley Civilisation (IVC) was a Bronze Age civilisation, not an Iron Age one. It flourished between 3300 BCE and 1300 BCE, with its mature phase lasting from 2600 BCE to 1900 BCE. The Iron Age in India began much later, around 1200 BCE to 600 BCE, after the decline of the IVC.
- Statements 2 and 3 are correct. The IVC covered an area of approximately 1.26 million square kilometers, making it larger than the combined areas of the Egyptian and Mesopotamian



civilisations. It spanned parts of modern-day Pakistan, northwest India, and Afghanistan, making it one of the most extensive early civilisations. The IVC was located along ancient trade and migration routes that connected Central and Western Asia to the Indian subcontinent. Archaeological evidence shows that the civilisation engaged in long-distance trade with regions like Mesopotamia, Central Asia, and the Iranian Plateau.

Source: The Hindu

- 2. Correct Answer is (B)
- Graffiti: In archaeological contexts, graffiti refers to informal markings or inscriptions made on various surfaces, often on everyday items like pottery or walls. These markings are typically less formal and may include simple symbols or drawings that do not follow structured grammatical
- **Script**: Script refers to a more formalized system of writing that is typically inscribed on official items such as seals, tablets, or other durable materials. Scripts are characterized by their structured grammar and syntax, intended for communication in administrative, commercial, or ceremonial contexts.

Source: The Hindu

- 3. Correct Answer is (C)
- The Pravasi Bharatiya Samman Award (PBSA) is the highest honour conferred on overseas Indians, Persons of Indian Origin (PIOs), or organizations/institutions established by them. It recognizes their exceptional achievements and contributions both in India and abroad. The award is conferred by the President of India during the Valedictory Session of the Pravasi Bharatiya Divas (PBD) Convention.

Source: AIR

- 4. Correct Answer is (A)
- Kalamkari paintings —Kalamkari art is known for its intricate hand-painted or block-printed designs, often featuring mythological themes, floral patterns, and natural motifs.
- Kanjeevaram silk Kanjeevaram silk sarees are renowned for their vibrant colours, intricate designs, and heavy zari work. They often feature traditional motifs inspired by temple architecture, nature, and mythology.
- Etikopakka wooden dolls Etikopakka wooden toys are known for their smooth, rounded contours and lacquer-coated surfaces.

Source: The Hindu

- 5. Correct Answer is (B)
- Maharishi Agasthyar is widely regarded as the father of the Tamil language and is credited with compiling the first Tamil grammar text, Agattiyam. He played a pioneering role in the development of Tamil literature and linguistics, as well as in spreading Vedic traditions to South India. Maharishi Agasthyar is considered a pioneer of Siddha medicine. Agasthyar played a key role in uniting northern and southern Indian cultures by spreading Vedic traditions to South India. Agasthyar is closely associated with Shaivism. The theme for the third edition of the Kashi Tamil Sangamam is the legacy and philosophy of Maharishi Agasthyar.

Source: The Hindu

- 6. Correct Answer is (C)
- Thiruvalluvar was a renowned Tamil poet and philosopher who lived sometime between the 3rd century BCE and the 6th century CE. He is best known for his masterpiece, the Thirukkural, which is considered one of the greatest works of Tamil literature.

Source: AIR

#### **Modern Indian History**

7. Correct Answer is (A)

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- Statement 1 is correct. The Girmitiya system refers to indentured labourers from British India who were transported to various British colonies in the 19th and early 20th centuries to work on plantations, primarily sugarcane. This system was implemented after the abolition of slavery in 1833 to address labour shortages in British colonies like Fiji, Trinidad, Mauritius, and others.
- Statement 2 is incorrect. The Girmitiya labour system was not primarily a response to Britain's policy to expand Indian overseas trade. Instead, it was introduced as a solution to the labour shortages in colonial plantations following the abolition of slavery. The system aimed to provide cheap labour for plantation owners rather than promote trade.

Source: The Hindu

- 8. Correct Answer is (C)
- The term nautor refers to the right to utilize government-owned wasteland for purposes such as agriculture, horticulture, or residence, with the sanction of competent authorities. This practice has been historically implemented in regions like Himachal Pradesh and Ladakh, allowing individuals to cultivate and use barren or wasteland under specific conditions.

Source: The Hindu

# Geography

- 9. Correct Answer is (A)
- Statements 1 and 2 are correct. The Interlinking of Rivers (ILR) aims to address India's water challenges by transferring water from surplus river basins to deficit areas. This involves creating a network of canals, reservoirs, and tunnels to redistribute water resources effectively. The ILR is implemented under the National Perspective Plan (NPP), which was formulated in 1980 by the Government of India. The NPP is divided into two components: the Himalayan Rivers Development Component and the Peninsular Rivers Development Component.
- Statement 3 is incorrect. While the National Interlinking of Rivers Authority (NIRA) has been proposed as an independent body to oversee the ILR projects, it has not yet replaced the National Water Development Agency (NWDA), which remains the nodal agency responsible for planning and implementation of ILR projects under the NPP.

Source: The Hindu

- 10. Correct Answer is (B)
- Statement 1 is incorrect. Kandla Port (Deendayal Port) is located on the western coast of India in the Kutch district of Gujarat, near the Gulf of Kutch. It is one of the major ports in India. It is set to become an important hub of the country in the field of green hydrogen.
- Statements 2 and 3 are correct. Kandla Port handles a variety of cargo, including petroleum products, chemicals, grains, iron ore, salt, and containers. It is one of India's busiest ports for such goods. Kandla Port was the first port to be developed in India after independence to compensate for the loss of Karachi Port to Pakistan post-partition.

Source: AIR

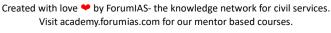
# 11. Correct Answer is (D)

• Rat-hole mining is a common practice in northeastern India, particularly in the state of Meghalaya, and involves digging narrow tunnels to access coal seams. This method is known for its dangerous working conditions and environmental impact.

Source: The Hindu

#### 12. Correct Answer is (B)

- Statement 1 is incorrect. The Z-Morh Tunnel is a 6.5 km-long, two-lane tunnel located between Gagangir and Sonamarg in Jammu and Kashmir. Its primary purpose is to provide all-weather connectivity to Sonamarg, a tourist destination, and act as a precursor to the Zojila Tunnel, which will connect Sonamarg to Drass in Ladakh.
- Statement 2 is correct. The Z-Morh Tunnel is part of the broader Zojila Tunnel project, aimed at ensuring year-round connectivity between Srinagar and Ladakh. It complements the Zojila Tunnel





by improving access to Sonamarg and serving as an initial segment of the strategic corridor. New Austrian Tunnelling Method (NATM) is used for the construction of the tunnel.

Source: The Hindu

#### 13. Correct Answer is (B)

- Statement 1 is incorrect. Mongolia is a landlocked country located in East Asia, bordered by Russia to the north and China to the south.
- Statement 2 is correct. Mongolia is known for its abundant mineral resources, including significant deposits of copper and coking coal, which are critical for industries like steelmaking. The country has some of the world's largest reserves of coking coal and copper, making mining a key contributor to its economy.

Source: The Hindu

#### 14. Correct Answer is (B)

• MMR measures the number of maternal deaths during pregnancy or within 42 days of termination of pregnancy, per 100,000 live births, and is a key indicator of maternal health.

Source: The Hindu

# 15. Correct Answer is (A)

- Statements 1 and 2 are correct. Greenland is located between the Arctic Ocean to the north and the North Atlantic Ocean to the south. Greenland is the world's largest island, covering an area of approximately 2,166,086 square kilometers.
- Statement 3 is incorrect. Greenland is separated from Canada by the Davis Strait and Baffin Bay.

Source: The Hindu

#### 16. Correct Answer is (B)

- Statement 1 is incorrect. While Diego Garcia is part of the Chagos Archipelago, which contains some of the healthiest and most pristine coral reefs in the Indian Ocean, it does not have the world's largest coral reef. The Great Barrier Reef in Australia holds that distinction.
- Statement 2 is correct. Diego Garcia is the largest island in the Chagos Archipelago and is administered as part of the British Indian Ocean Territory (BIOT), a UK overseas territory. Although there has been an agreement to transfer sovereignty of the Chagos Archipelago to Mauritius, Diego Garcia remains under UK administration for now, with a joint UK-US military base operating on the island.

Source: <u>The Hindu</u>

#### 17. Correct Answer is (A)

- Line of Actual Control (LAC) The LAC is the defacto border between India and China, and it has been a site of frequent tensions and clashes, including the 2017 Doklam standoff and the deadly Galwan Valley clash in 2020.
- Line of Control (LoC) The LoC refers to the military control line between Indian- and Pakistanicontrolled parts of Jammu and Kashmir. It is unrelated to India's northeastern states, which are connected to the mainland via the Siliguri Corridor.
- **Siliguri Corridor** The Siliguri Corridor, also known as the Chicken's Neck, connects India's northeastern states to the rest of the country. It does not include the Siachen Glacier or experience ceasefire violations, which are associated with the LoC.

Source: The Hindu

# 18. Correct Answer is (C)

• Statements 1, 3 and 4 are correct. The India Meteorological Department (IMD) was established in 1875 by the British colonial government to centralize meteorological observations and address issues like cyclones and monsoon failures. Its first (Imperial) Meteorological Reporter was Henry Francis Blanford. IMD became a member of the World Meteorological Organisation (WMO) on April 27, 1949, after India's independence. Aside from tracking and studying phenomena like rainfall and

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- cyclones, the IMD helps record earthquakes and atmospheric pollution and generates alerts and warnings about impending anomalous weather.
- Statement 2 is incorrect. The IMD's original headquarters were in Calcutta (now Kolkata). The headquarters were later shifted to Shimla in 1905, Pune in 1928, and finally New Delhi in 1944. It currently operates six Regional Meteorological Centres, a Meteorological Centre in every State capital, plus a panoply of centres for various meteorological services.

Source: The Hindu

# 19. Correct Answer is (D)

• Lesotho, officially known as the Kingdom of Lesotho, is a small, landlocked country located in Southern Africa. It is unique for being entirely surrounded by South Africa, making it the largest sovereign enclave in the world. Lesotho lies entirely above 1,000 meters in elevation, making it the only country globally with such a distinction. India has recently sent the second tranche of foodgrain assistance to Lesotho to help address the country's food security issues.

Source: AIR

#### 20. Correct Answer is (B)

- Statements 1 and 4 are correct. The National Turmeric Board focuses on enhancing the production, quality, research, and export of turmeric and turmeric-based products in India. It also aims to ensure better income for farmers and expand international markets for turmeric. It collaborates with the Spices Board of India and other government agencies to promote research, quality standards, and market development for turmeric. India is the largest producer, consumer, and exporter of turmeric, accounting for over 70% of global production and dominating with a 62% share in the global turmeric trade.
- Statements 2 and 3 are incorrect. The headquarters of the National Turmeric Board is located in Nizamabad, Telangana, a major hub for turmeric production. The Ministry of Commerce and Industry is the nodal ministry responsible for implementing the National Turmeric Board. Major states involved in turmeric cultivation include: Telangana, Andhra Pradesh, Tamil Nadu, Karnataka, Maharashtra, Odisha, West Bengal, Gujarat. Additionally, Meghalaya is known for its high-curcumin Lakadong turmeric variety.

Source: AIR

#### **Polity**

#### 21. Correct Answer is (B)

- Statements 1 and 2 are correct. NRIs are Indian citizens who live abroad, while PIOs are foreign nationals who have Indian ancestry but do not hold Indian citizenship. NRIs retain the right to vote in Indian elections while PIOs do not have voting rights in India.
- Statements 3 and 4 are incorrect. While NRIs are Indian citizens (which may include those born in India or those who acquired citizenship later), PIOs do not acquire Indian citizenship through residency; they are foreign nationals and do not have citizenship rights in India. NRIs are not foreign nationals; they are Indian citizens residing abroad. PIOs, on the other hand, are foreign nationals of Indian origin and do not hold Indian citizenship.

Source: The Hindu

#### 22. Correct Answer is (C)

• Statements 1 and 2 are correct. The Election Commission of India (ECI) is a constitutional body established under Article 324 of the Indian Constitution. It is responsible for the superintendence, direction, and control of elections to Parliament, State Legislatures, and the offices of the President and Vice President of India. The Chief Election Commissioner (CEC) can only be removed from office through a process similar to that of a Supreme Court judge, which involves impeachment by Parliament on grounds of proved misbehaviour or incapacity, requiring a two-thirds majority in both Houses.

Source: AIR





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#### 23. Correct Answer is (C)

• Statements 1 and 2 are correct. The National Youth Festival 2025 focuses on empowering youth for nation-building and aligns with India's commitment to the SDGs, as evident in its themes like "Youth for Sustainable Development" and initiatives promoting leadership, innovation, and sustainability. MY Bharat, established as an autonomous body under the Ministry of Youth Affairs and Sports, plays a pivotal role in curating and guiding the National Youth Festival, ensuring it aligns with youth aspirations.

Source: The Hindu

#### 24. Correct Answer is (C)

• Statements 1 and 2 are correct. Article 5 of the Indian Constitution provides the criteria for citizenship at the commencement of the Constitution, focusing on birth, parentage, or residency in India. It does not allow dual citizenship. Article 9 states that an Indian citizen who voluntarily acquires the citizenship of another country loses their Indian citizenship.

Source: The Hindu

#### 25. Correct Answer is (B)

• The Central Drugs Standard Control Organization (CDSCO), under the Directorate General of Health Services, Ministry of Health and Family Welfare, is the national regulatory authority responsible for the regulation and approval of medical devices in India. It ensures the safety, efficacy, and quality of medical devices under the Drugs and Cosmetics Act, 1940 and Medical Devices Rules, 2017. ICMR focuses on medical research. NPPA regulates drug pricing.

Source: **DD News** 

#### 26. Correct Answer is (A)

- Statement 1 is correct. According to Article 124(3) of the Constitution, a person must have served as a High Court judge for at least 5 years or have been an advocate in a High Court for at least 10 years, or be a distinguished jurist in the President's opinion, to qualify for appointment as a Supreme Court judge.
- Statements 2 and 3 are incorrect. The NJAC was established by the 99th Constitutional Amendment Act in 2014 but was declared unconstitutional by the Supreme Court in 2015. Currently, the Collegium system, led by the Chief Justice of India and senior judges, is responsible for recommending appointments. The Constitution does not define "distinguished jurist" explicitly, and it is not limited to senior lawyers with two decades of practice. It refers broadly to individuals with outstanding legal or academic expertise, as determined by the President's opinion. No one has been appointed under this category yet.

Source: The Hindu

#### **Acts & Policies**

## 27. Correct Answer is (A)

- Statement 1 is correct. The PM-JANMAN scheme is specifically designed to uplift the socioeconomic conditions of Particularly Vulnerable Tribal Groups (PVTGs) by providing essential infrastructure, healthcare, education, and livelihood opportunities.
- Statement 2 is incorrect. The scheme focuses on basic infrastructure development in remote and rural tribal areas, such as housing, drinking water, sanitation, road connectivity, and healthcare, rather than urban infrastructure.

Source: AIR

# 28. Correct Answer is (C)

- The Riverine Community Development Scheme (RCDS) includes the following components:
- **Infrastructure Development**: Aimed at building and upgrading facilities along national waterways to support trade, tourism, and transportation. This includes developing jetties, terminals, and other infrastructure to improve connectivity and economic activity in riverine areas.

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- **Skill Enrichment Training**: Focused on empowering local communities by providing training to enhance their skills in areas such as navigation, vessel operation, eco-tourism, and other waterway-related activities.
- **Upgrading Traditional Knowledge of Rivers**: The scheme emphasizes integrating traditional ecological knowledge with modern practices to ensure sustainable use of river resources.
- **Promotion of Green Shipping**: It is not a core component of RCDS.

Source: The Hindu

#### 29. Correct Answer is (B)

• The Scheme for Economic Empowerment of Denotified, Nomadic, and Semi-Nomadic Tribes (SEED) is implemented by the Ministry of Social Justice & Empowerment. The scheme aims to provide financial assistance for housing, health insurance, livelihood initiatives, and educational empowerment for these marginalized communities. It is overseen by the Development and Welfare Board for De-notified, Nomadic, and Semi-Nomadic Communities (DWBDNC) under the ministry.

Source: <u>The Hindu</u>

#### 30. Correct Answer is (B)

- Statement 1 is incorrect. The National Electoral Rolls Purification and Authentication Program (NERPAP) aims to link voter ID cards (EPIC) with Aadhaar numbers to remove duplicate and erroneous entries from the electoral roll.
- Statement 2 is correct. The Election Commission of India launched and oversees the implementation of NERPAP to ensure an error-free and authenticated electoral roll.

Source: The Hindu

# 31. Correct Answer is (C)

- Statements 1 and 3 are correct. Mission Mausam is designed to make India "weather-ready" and "climate-smart" by improving weather forecasting accuracy, disaster preparedness, and resilience to climate change. It focuses on advanced technologies like AI, machine learning, and high-performance computing to enhance prediction capabilities. One of the objectives of Mission Mausam is to improve air quality predictions in major metro cities by up to 10%, which will help address urban pollution challenges.
- Statement 2 s incorrect. Mission Mausam is being implemented by the Ministry of Earth Sciences
  (MoES) through its institutions like the India Meteorological Department (IMD), Indian Institute of
  Tropical Meteorology (IITM), and the National Centre for Medium-Range Weather Forecasting
  (NCMRWF).

Source: AIR

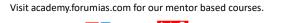
#### 32. Correct Answer is (C)

• The primary objective of the Bhashini Platform is to use Artificial Intelligence (AI) and Natural Language Processing (NLP) technologies to provide real-time translation, speech-to-text, and text-to-speech services in Indian languages. This initiative aims to bridge the language divide in India, ensuring digital inclusion for all citizens, especially those in rural and non-English-speaking regions. It focuses on making digital content and government services accessible in local languages. The Bhashini Platform, also known as the National Language Translation Mission (NLTM), is an ambitious initiative launched by the Government of India under the Ministry of Electronics and Information Technology (MeitY).

Source: AIR

# **International Relations/Organizations**

- 33. Correct Answer is (C)
- SAGAR initiative focuses on enhancing maritime security, economic growth, and cooperation in the Indian Ocean Region (IOR). It complements the Neighborhood First Policy, which emphasizes strengthening ties with India's immediate neighbors. It aligns with India's active engagement in





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the Indian Ocean Rim Association (IORA), a regional initiative promoting sustainable development in the IOR.

Source: The Hindu

#### 34. Correct Answer is (D)

- Statements 1 and 3 are correct. The European Council is a core institution of the EU. It defines the EU's overall political direction and priorities but does not have legislative powers. The European Council represents national interests at the highest political level, as it is composed of heads of state or government who advocate for their respective countries' positions.
- Statement 2 is incorrect. The European Council focuses on broad policy directions and resolving high-level issues. The Council of the European Union deals with specific policy areas and legislation alongside the European Parliament. The European Council does not have legislative powers whereas the Council of the European Union is part of the legislative process. Both are distinct entities.

Source: AIR

# 35. Correct Answer is (B)

• The Tin Bigha Corridor Agreement was rooted in the 1974 Land Boundary Agreement (LBA) signed between Indian Prime Minister Indian Gandhi and Bangladeshi Prime Minister Sheikh Mujibur Rahman. This agreement aimed to resolve border disputes, including the exchange of enclaves and adverse possessions. Under the LBA: Bangladesh retained the Dahagram-Angarpota enclaves. India agreed to lease the Tin Bigha Corridor (a narrow strip of Indian land) to Bangladesh, providing connectivity to these enclaves.

Source: The Hindu

#### 36. Correct Answer is (A)

• The Silver Notice is a tool introduced by Interpol to trace and locate illicit assets that have been laundered across international borders. It focuses on identifying and recovering criminal proceeds, such as money or properties, hidden in foreign jurisdictions. It is being seen as an alternate to Mutual Legal Assistance Treaties (MLATs).

Source: The Hindu

#### 37. Correct Answer is (D)

- The co-production of sonobuoys between India and the U.S. aligns with the following initiatives:
- Make in India: The project supports India's "Make in India" initiative by promoting domestic
  manufacturing of defense equipment and reducing reliance on imports. The final assembly of
  sonobuoys will take place in India, ensuring technology transfer and boosting local production
  capabilities.
- Initiative on Critical and Emerging Technologies (ICET): This collaboration is part of the broader U.S.-India ICET framework launched in 2022, which focuses on advancing high-end technologies like defense systems, semiconductors, and artificial intelligence. The sonobuoy project reflects this initiative's goals of fostering innovation and industrial cooperation between the two nations.
- Atmanirbhar Bharat: The project aligns with India's vision of "Atmanirbhar Bharat" (self-reliant India) by strengthening the domestic defense manufacturing ecosystem and enhancing India's technological self-reliance in critical sectors like anti-submarine warfare.

Source: The Hindu

# 38. Correct Answer is (B)

• Statements 1 and 3 are correct. The UN-CEBD was established by the United Nations Statistical Commission to explore and promote the use of Big Data and data science in official statistics globally. One of the key objectives of the UN-CEBD is to leverage Big Data and data science to monitor and report on progress toward achieving the Sustainable Development Goals (SDGs) by providing timely and actionable insights.

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• Statement 2 is incorrect. The UN-CEBD does not aim to replace traditional statistical methods but rather to complement and enhance them using Big Data, data science, and technologies like Artificial Intelligence (AI). India has recently joined the UN Committee of Experts on Big Data and Data Science for Official Statistics (UN-CEBD).

Source: The Hindu

# 39. Correct Answer is (C)

• The "China+1" strategy refers to a business approach adopted by companies to reduce their overreliance on China for manufacturing and supply chain activities. This involves diversifying operations by establishing production or sourcing facilities in other countries while maintaining some presence in China. The strategy aims to mitigate risks such as geopolitical tensions, rising labour costs, and supply chain disruptions.

Source: **DD News** 

#### **Economy**

40. Correct Answer is (C)

• The Public Distribution System (PDS) in India primarily distributes rice, wheat, and coarse grains to ensure food security for the poor and vulnerable sections of society. Other items like sugar, edible oil, or pulses may be distributed under state-specific or supplementary schemes but are not the primary focus of PDS.

Source: The Hindu

# 41. Correct Answer is (A)

- Statement 1 is correct. The RBI has been purchasing gold as part of its strategy to hedge against inflation and reduce foreign currency risks, especially during times of geopolitical and economic uncertainty.
- Statement 2 is incorrect. The RBI does not use its gold reserves to repay foreign debt. Gold is used as a store of value and a hedge against currency risks. The RBI's foreign exchange reserves are generally used for managing currency and stabilizing the Indian Rupee.

Source: **DD News** 

# 42. Correct Answer is (D)

• Statements 1 and 2 are incorrect. India does not use only the WPI as the GDP deflator. Instead, the GDP deflator is a weighted average of WPI and CPI. While WPI has a larger influence on the GDP deflator, it is not the sole component. The GDP deflator reflects price changes for all goods and services produced domestically, including business investments, government spending, and exports, but excludes imports. The CPI, on the other hand, focuses only on consumer spending and measures the price changes of a fixed basket of goods and services purchased by households.

Source: The Hindu

# 43. Correct Answer is (A)

• When the rupee is depreciating rapidly, the Reserve Bank of India (RBI) can intervene in the foreign exchange market by selling US dollars from its foreign exchange reserves. This increases the supply of dollars in the market, stabilizing the rupee by reducing its depreciation pressure.

Source: The Hindu

# 44. Correct Answer is (B)

- **Increase in global oil prices**: Rising crude oil prices have increased India's import bill, widened the trade deficit and put pressure on the rupee.
- **Strengthening US Dollar**: The US dollar has strengthened due to robust economic data, higher interest rates, and increased demand for safe-haven assets, making other currencies, including the rupee, weaker in comparison.

Source: The Hindu



#### 45. Correct Answer is (D)

• Income Tax and Corporate Tax are direct taxes because they are paid directly by individuals or corporations to the government based on their income or profits. Whereas, Goods and Services Tax (GST) and Customs Duty are indirect taxes, as they are collected by intermediaries (like sellers or importers) and passed on to the government.

Source: DD News

#### 46. Correct Answer is (B)

Promoting export-oriented industries aligns with supply-side policies that aim to enhance the
productivity and competitiveness of domestic industries. By improving the quality and price
competitiveness of exports, such policies increase demand for domestic goods in international
markets, thereby boosting exports and narrowing the trade deficit.

Source: The Hindu

#### **Environment**

47. Correct Answer is (A)

- **Greenhouse Gas Emissions**: Emissions of gases like carbon dioxide  $(CO_2)$ , methane  $(CH_4)$ , and nitrous oxide  $(N_2O)$  trap heat in the atmosphere, causing global warming and climate change.
- **Ozone Hole in the Stratosphere**: The ozone hole primarily affects ultraviolet radiation levels and is not a significant driver of climate change. It is an environmental issue but unrelated to global warming.
- **El Niño**: El Niño is a natural climate phenomenon that temporarily influences global temperatures and weather patterns but is not a cause of long-term climate change.
- **Deforestation**: Cutting down forests reduces the Earth's capacity to absorb CO<sub>2</sub>, contributing significantly to greenhouse gas accumulation and climate change.
- **Earth's Orbital Changes**: Orbital changes, known as Milankovitch cycles, influence Earth's climate over tens of thousands of years but are not responsible for the rapid, human-induced climate change observed today.

Source: The Hindu

#### 48. Correct Answer is (B)

- Statements 1 and 3 are incorrect. The Hoollongapar Gibbon Wildlife Sanctuary is situated in the Jorhat district of Assam. The Hoollongapar Gibbon Wildlife Sanctuary covers an area of only 20.98 square kilometers, making it relatively small compared to other sanctuaries in Northeast India, such as Kaziranga National Park or Namdapha National Park.
- Statement 2 is correct. The sanctuary is home to the Hoolock gibbons, which are India's only ape species. It also harbours Northeastern India's only nocturnal primate, the Bengal slow loris.

Source: The Hindu

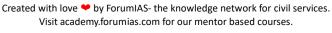
#### 49. Correct Answer is (C)

• The Sada in the Konkan region of Maharashtra is a type of flat, rocky terrain with lateritic plateaus. These areas are characterized by unique biodiversity, including species that are adapted to arid and nutrient-poor conditions due to the rocky and barren nature of the terrain for most of the year. During the monsoon, these areas transform and support endemic flora and fauna. The area also hosts ancient geoglyphs (rock art) estimated to be around 10,000 years old.

Source: The Hindu

#### 50. Correct Answer is (B)

- Statements 1 and 3 are correct. The African tigerfish (Hydrocynus vittatus) is a top predator in its freshwater ecosystems, playing a crucial role in regulating populations of smaller fish and maintaining ecological balance. The African tigerfish has been documented as the first fish species capable of attacking and catching birds in mid-flight, showcasing its unique predatory behaviour.
- Statements 2 and 4 are incorrect. The African tigerfish is native to African freshwater systems such as the Zambezi River, Congo River Basin, and Lake Tanganyika. It is not found in the Amazon River





basin, which is located in South America. The African tigerfish is currently listed as "Least Concern" on the IUCN Red List.

Source: The Hindu

#### 51. Correct Answer is (B)

• The Pallikaranai Marshland, located about 20 kilometers south of Chennai, Tamil Nadu, is a vital freshwater and partly saline wetland. It is one of the last remaining natural wetlands in the city and plays a critical role in urban ecology. The Vettangudi Bird Sanctuary, located in Sivagangai District near Madurai, Tamil Nadu, spans approximately 38 hectares. It was declared a sanctuary in 1977 to protect its rich avian diversity.

Source: **DD News** 

#### 52. Correct Answer is (B)

- Statement 1 is incorrect. The spotted deer (Axis axis) is not endemic to the Western Ghats. It is native to the broader Indian subcontinent, including regions like India, Nepal, Bhutan, Bangladesh, and Sri Lanka. While it is found in the Western Ghats, it is not restricted to this region and inhabits various habitats across the subcontinent.
- Statemen 2 is correct. Spotted deer are commonly found in Nagarahole Tiger Reserve in Karnataka. The reserve connects to other important wildlife areas like the Wayanad Wildlife Sanctuary in Kerala and Bandipur Tiger Reserve. Spotted deer are diurnal but most active during dawn and dusk when predator activity is lower.

Source: The Hindu

# 53. Correct Answer is (A)

- Statements 1 and 2 are correct. Green hydrogen is a clean and sustainable form of energy produced by splitting water molecules using renewable electricity. This process, known as electrolysis, uses electricity generated from renewable sources like solar, wind, or hydropower to break down water (H2O) into hydrogen (H2) and oxygen (O2). Currently, green hydrogen is more expensive to produce than grey hydrogen.
- Statement 3 is incorrect. The main byproduct of green hydrogen production through electrolysis is oxygen. When water is split into hydrogen and oxygen during electrolysis, the only byproduct is pure oxygen.

Source: **DD News** 

# Science & Technology

- 54. Correct Answer is (C)
- **Shukrayaan-1**: This mission is aimed at studying Venus, not Mars. It focuses on Venus's atmosphere, surface, and geological features, including its volcanic and tectonic activity. **Mangalyaan-2**: This mission is focused on Mars, not Venus. It aims to study Mars's atmosphere, surface features, and interplanetary dust. It may include advanced technologies like a rover and helicopter for exploration.
- **Chandrayaan-4**: This mission is focused on lunar exploration. It aims to collect lunar samples and return them to Earth, building on the success of Chandrayaan-3.

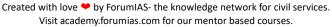
Source: The Hindu

#### 55. Correct Answer is (C)

• AnemiaPhone technology involves a finger prick and a drop of blood on a test strip, similar to a COVID-19 home test, to detect iron deficiency anemia. AnemiaPhone was developed by Cornell University to provide rapid, accurate, and affordable anemia detection using a small finger stick and a test strip.

Source: The Hindu

56. Correct Answer is (A)





- Statement 1 is correct. The Genome India Project's primary goal is to sequence the genomes of 10,000 diverse individuals across India to create a comprehensive genetic database. This initiative aims to capture the genetic diversity of India's population and develop a reference genome for better understanding of diseases and personalized medicine.
- Statements 2 and 3 are incorrect. The Genome India Project is led by the Centre for Brain Research at the Indian Institute of Science (IISc), Bengaluru, in collaboration with 20 other institutions across India. It is funded by the Department of Biotechnology (DBT). The Genome India Project employs Next-Generation Sequencing (NGS) technology for whole-genome sequencing. NGS is a state-of-the-art method used to sequence DNA rapidly and cost-effectively.

Source: The Hindu

#### 57. Correct Answer is (C)

 Aero India 2025 is organized by the Defence Exhibition Organisation, which operates under the Ministry of Defence. The theme of the Defence Ministers' Conclave at Aero India 2025— "BRIDGE: Building Resilience through International Defence and Global Engagement"— will reflect India's focus on fostering resilience through international cooperation.

Source: The Hindu

# 58. Correct Answer is (A)

- Statements 1 and 2 are correct. The NISAR satellite is designed to monitor Earth's land and ice surfaces to study ecosystem changes, natural hazards (e.g., earthquakes, landslides, and volcanic activity), and the impacts of climate change. It will provide critical data on biomass, glaciers, soil moisture, and other environmental factors. NISAR is the first satellite to use dual-frequency Synthetic Aperture Radar (SAR) technology, operating in both L-band and S-band frequencies. This dual-frequency capability allows it to provide continuous global data with high precision, enabling detailed monitoring of Earth's surface changes.
- Statement 3 is incorrect. While NISAR is highly advanced and capable of monitoring long-term surface changes, it is not designed for real-time weather forecasting, including cyclones. Its primary focus is on studying land deformation, ecosystems, ice sheets, and climate-related phenomena rather than short-term atmospheric events like cyclones.

Source: AIR

# 59. Correct Answer is (C)

• DigiBoxx is India's first indigenous cloud storage platform offering both free and paid plans for individuals and businesses. Its servers and data centers are based entirely in India, ensuring compliance with data localization requirements. It offers affordable pricing (e.g., ₹30/month for 100 GB), making it competitive against global giants like Google Drive and Dropbox. It also supports privacy and security by storing data within Indian borders.

Source: The Hindu

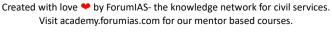
# 60. Correct Answer is (C)

- Statements 1, 3 and 4 are correct. Human cells have 24 chromosomes, which correspond to 24 DNA molecules: chromosomes 1 to 22 and the sex chromosomes X and Y. Gene expression involves transcription of the DNA sequence into mRNA, which is then translated into proteins. Exogenous DNA is foreign DNA introduced into a cell from an external source.
- Statement 2 is incorrect. DNA is a double-stranded molecule, not three-stranded. The two strands are connected by base pairs (adenine-thymine and cytosine-guanine).

Source: The Hindu

# 61. Correct Answer is (D)

• Blue baby syndrome, also known as methemoglobinemia, occurs when infants consume water contaminated with high levels of nitrates. The nitrates are converted into nitrites in the body, which bind to hemoglobin and reduce its ability to carry oxygen. This condition is most common in infants





under six months old and can cause symptoms such as bluish skin, lethargy, and even death if untreated.

Source: <u>The Hindu</u>

#### 62. Correct Answer is (B)

• The alignment of the Sun, Moon, and Jupiter during the Maha Kumbh Mela is believed to be significant in astrological terms, enhancing spiritual energy and the importance of the event. The Maha Kumbh Mela is believed to coincide with a cosmic alignment, which might result in a temporary increase in the Earth's magnetic field. This is thought to enhance spiritual experiences during the ritual bathing in the holy rivers. The Maha Kumbh Mela is the largest religious gathering in the world.

Source: <u>The Hindu</u>

#### 63. Correct Answer is (B)

• The esterase enzyme was recently in the news for its ability to degrade harmful plasticizers, such as diethyl hexyl phthalate (DEHP), into less toxic byproducts like mono-(2-ethylhexyl) phthalate (MEHP) and 2-ethyl hexanol. This enzyme is being explored for its potential in addressing environmental pollution caused by plasticizers, which are chemicals used to enhance the flexibility of plastics.

Source: The Hindu

# 64. Correct Answer is (A)

• Fire-and-forget technology enables a missile to autonomously track and engage its target after being launched, without requiring additional input or guidance from the operator. This allows for greater precision and reduces the risk to the operator in combat scenarios. The Nag Mk-2 is an advanced, indigenously-developed, third-generation Anti-Tank Guided Missile (ATGM) by Defence Research and Development Organisation (DRDO). It employs fire-and-forget technology.

Source: The Hindu

# 65. Correct Answer is (B)

- Statements 1 and 3 are correct. The Chief of Defence Staff (CDS) is the highest-ranking military officer in India and acts as the principal military advisor to the Defence Minister on tri-service matters. The CDS is described as the overall professional head of the Indian Armed Forces. The CDS is described as primus inter pares (first among equals) with respect to the three service chiefs.
- Statements 2 and 4 are incorrect. The CDS heads the Department of Military Affairs (DMA) within the Ministry of Defence. The idea for creating a CDS was recommended by the Kargil Review Committee, following India's experience during the Kargil War. The CDS is a four-star officer chosen from among serving officers in the Army, Navy, or Air Force. The term extends until a maximum age of 65 years, or three years in office—whichever comes earlier. After retirement, the CDS is not eligible for any government office.

Source: AIR

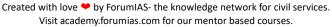
#### 66. Correct Answer is (B)

• SLMs require less compute power, training time, and data compared to LLMs. They are cheaper to train, deploy, and maintain, making them accessible to smaller organizations. SLMs are ideal for specialized tasks where general-purpose LLMs are unnecessary. SLMs can run locally on devices like smartphones or IoT devices without relying on cloud services. SLMs are designed for domain-specific tasks, while LLMs are general-purpose and trained on diverse datasets.

Source: The Hindu

#### 67. Correct Answer is (D)

• **INS Nilgiri** – INS Nilgiri is the lead ship of the Project 17A frigates, which are advanced stealth frigates designed for multi-role operations.





- **INS Vaghsheer** INS Vaghsheer is the sixth and final submarine of the Project 75 Kalvari-class, which consists of diesel-electric attack submarines.
- **INS Surat** INS Surat is the fourth and final destroyer of Project 15B, which focuses on stealth and advanced weaponry.

Source: The Hindu

# 68. Correct Answer is (A)

- Statements 1 and 2 are correct. Indian National Science Academy (INSA) is recognized as the
  premier scientific society of India, representing all branches of science and technology. Its
  objectives include promoting science, safeguarding the interests of scientists, and advising the
  government on scientific matters. INSA is the adhering organization in India for the International
  Science Council (ISC), which facilitates international scientific collaboration and represents India's
  scientific community globally.
- Statement 3 is incorrect. The Shanti Swarup Bhatnagar Prize is awarded by the Council of Scientific and Industrial Research (CSIR), not INSA.

Source: The Hindu

# 69. Correct Answer is (D)

• Fermions are particles with half-integer spins. These particles make up matter and obey the Pauli Exclusion Principle, which states that no two fermions can occupy the same quantum state simultaneously. Examples include electrons, protons, and neutrons. Bosons are particles with integer spins. These particles mediate fundamental forces between fermions and do not obey the Pauli Exclusion Principle, meaning they can occupy the same quantum state. Examples include photons, gluons. Fermions form the building blocks of matter (e.g., atoms and molecules) while Boson's act as force carriers, facilitating interactions between matter particles.

Source: The Hindu

