

10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

[2nd Week] June, 2024

10 PM Compilation June [Second Week] 2024

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Art & Culture and Medieval History

Q.1) Which one of the following instruments is the 'sarod' derived from?

- a) Sitar
- b) Veena
- c) Rabab
- d) Tanpura

Q.2) Which one of the following is the primary significance of the 'Raja Parba' festival celebrated in Odisha?

- a) Celebrating the harvest season
- b) Onset of monsoon season
- c) Celebrating womanhood and the menstrual cycle of Mother Earth
- d) Commemorating a historical event

Q.3) Consider the following statements:

1. The Satnamis were a group of Sufi mystics advocating for religious tolerance.
2. The Satnami revolt occurred during the reign of Mughal Emperor Aurangzeb.

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

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

Geography

Q.4) Consider the following statements:

1. During the summer solstice in the northern hemisphere, the Sun is directly overhead at the equator.
2. Arctic Circle experiences 24 hours of daylight during the summer solstice in the northern hemisphere.

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.5) A heat dome is:

- a) A low-pressure system that brings cool and wet weather
- b) A high-pressure system that traps hot air over a region
- c) A type of cloud formation that causes heavy rainfall
- d) A weather pattern associated with cold fronts

Q.6) Consider the following statements:

1. The North Indian Ocean doesn't generate as many cyclones as the Pacific Ocean.
2. The Indian Ocean is among the fastest warming oceans.
3. The Indian Ocean's northern boundary is connected to the Pacific and Southern Oceans.
4. The warming Indian Ocean affects wind circulation, influencing the Pacific Ocean's heat uptake and modulating global warming rates.

Which of the statements given above are correct?

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

Q.7) Craters are primarily formed by:

- a) Volcanic eruptions
- b) Impact of meteorites or asteroids
- c) Erosion by wind and water
- d) Tectonic plate movements

Q.8) Which one of the following countries borders the Darfur region to the west?

- a) Central African Republic
- b) Libya
- c) Chad
- d) Ethiopia

Polity

Q.9) Consider the following statements:

- 1. Cabinet Minister is the highest-ranking position in the Union Council of Ministers.
- 2. As per the Constitution of India, the maximum number of ministers allowed in the Union Council of Ministers is 10% of the total members of the Lok Sabha.
- 3. Minister of State (Independent Charge) is one of the categories of ministers in the Union Council of Ministers.
- 4. The concept of "collective responsibility" in the context of the Council of Ministers implies that all ministers must agree on every decision.

How many of the statements given above are correct?

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

Q.10) Consider the following:

- 1. Property disputes exceeding a specific value limit.
- 2. Corruption and economic offences cases.
- 3. Matrimonial disputes and cases related to domestic violence.
- 4. Cases involving heinous crimes with severe punishments.

How many of the above types of cases are usually heard in Fast Track Special Courts (FTSC)?

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

Q.11) Consider the following statements:

- 1. In the First Past the Post (FPTP) electoral system, candidates must secure more than 50% of the votes to win.
- 2. FPTP can result in a mismatch between the percentage of votes a party receives and the number of seats it wins.
- 3. Proportional Representation (PR) is an electoral system designed to ensure that parties gain seats in proportion to the number of votes they receive.

How many of the statements given above are correct?

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

Q.12) Consider the following statements regarding the Quality Council of India (QCI):

1. The Quality Council of India is the apex organization in India responsible for establishing and operating the third-party national accreditation system.
2. The Prime Minister of India appoints the Chairperson of the Quality Council of India (QCI).
3. It is responsible for conducting inspections of companies or organizations that are not adhering to the prescribed quality standards.

How many of the statements given above are correct?

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

Q.13) Consider the following statements:

1. The concept of Special Category Status (SCS) was first brought into existence through the recommendations made by the Fifth Finance Commission.
2. A primary objective of granting SCS to a state is to grant it greater autonomy in managing its resources.

Which of the statements given above is/are correct?

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

Q.14) Consider the following statements:

1. Informing an accused of the grounds of arrest in writing is a fundamental right under Article 22 of the Constitution.
2. Investigating officers (IOs) are not required to present the accused in custody at the time of filing the charge sheet if the accused has been cooperating and the investigation can be completed without arrest.
3. Currently, there is no legal requirement to provide a copy of the arrest memo to the accused at the time of arrest.

How many of the statements given above are correct?

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

Q.15) Consider the following statements with reference to the Speaker of the Lok Sabha:

1. The Speaker and Deputy Speaker are elected by a simple majority of the House members.
2. There are no specific qualifications required to become the Speaker.
3. The Speaker often represents the Lok Sabha and speaks on its behalf in public or at international events.

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. Three sessions of Lok Sabha are conventionally held in a year.
2. The maximum gap permissible between two sessions of Parliament is 3 months.
3. Impeachment of the President of India can be taken up during the Lok Sabha sessions.

How many of the statements given above are correct?

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

Q.17) Consider the following statements:

1. Article 24 of the Indian Constitution prohibits employment of children below the age of 14 years in any factory, mine or other hazardous employment.
2. As per the Child Labour Act 2016, employment of children is prohibited in both hazardous and non-hazardous occupations.
3. As per the 2011 Census, Bihar has the highest incidence of child labour in India.
4. PENCIL (Platform for Effective Enforcement of No Child Labour) portal monitor and track child labour cases.

How many of the statements given above are correct?

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

Q.18) Consider the following statements regarding the Lok Sabha Speaker:

1. The Prime Minister proposes the name of the candidate for Speaker after consultations with opposition parties.
2. In order to be elected as the Speaker of the Lok Sabha, the person must not hold any office of profit under the government.
3. The outgoing Speaker presides over the first sitting of a newly constituted Lok Sabha when the Speaker is elected.

How many of the statements given above are correct?

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

Q.19) Which one of the following is the objective of National Crime Records Bureau (NCRB) Sankalan of Criminal Laws app?

- a) Provide a comprehensive database of criminal laws in India
- b) Facilitate online filing of FIRs
- c) Track the status of ongoing criminal cases
- d) Serve as a legal research tool for lawyers

Q.20) Which of the following are members of the Upper Yamuna River Board?

- a) Uttar Pradesh, Uttarakhand, Haryana, Rajasthan, Himachal Pradesh, Delhi
- b) Punjab, Haryana, Uttar Pradesh, Madhya Pradesh, Rajasthan
- c) Uttarakhand, Himachal Pradesh, Delhi, Haryana, Gujarat
- d) Uttar Pradesh, Madhya Pradesh, Chhattisgarh, Rajasthan, Delhi

Q.21) Consider the following statements:

1. Opposition is the essence of any democratic governance.
2. Inclusivity means the absence of differences in a society.

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) Consider the following statements:

1. The Central Information Commission (CIC) is a constitutional body.
2. A citizen can approach the CIC if they are denied access to information requested under the Right to Information Act, 2005.

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.23) Consider the following statements regarding the Inter-State Council:

1. Inter-State Council is a permanent constitutional body.
2. It is responsible for adjudicating and resolving inter-state water disputes.
3. The Inter-State Council is required to meet at least three times a year.
4. The Inter-State Council is chaired by the Prime Minister of India.

How many of the statements given above are correct?

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

Acts & Policies

Q.24) With reference to the PM Kisan Samman Nidhi Yojana, consider the following statements:

1. The scheme provides insurance coverage and offer loans at subsidized rates to farmers.
2. Ministry of Agriculture and Farmers Welfare is responsible for the implementation of the scheme.
3. Institutional landholders are not eligible for benefits under the scheme.

How many of the statements given above are correct?

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

Q.25) Consider the following:

1. Subsidy on interest rate for home loan
2. Ownership rights in the name of female members of the family
3. Free electricity connection for the new house
4. Financial assistance for construction of toilets

How many of the above are the benefits offered under the Pradhan Mantri Awas Yojana (PMAY)?

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

Q.26) Consider the following:

1. Sewage treatment infrastructure
2. River-front development
3. Biodiversity conservation
4. Construction of dams and barrages

How many of the above are the pillars of the 'Namami Gange Programme'?

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

Q.27) With reference to the Interest Equalisation Scheme (IES), consider the following statements:

1. It aims to promote foreign direct investment in export-oriented industries.
2. Under the scheme, imported inputs used must undergo substantial value addition in India.
3. The scheme is available only to exporters availing the Production Linked Incentive (PLI) scheme.

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.28) Consider the following statements:

1. The primary objective of the Jal Jeevan Mission (JJM) is to provide Functional Household Tap Connections (FHTCs) to every rural household.
2. JJM prioritizes participation of women self-help groups (SHGs) in the planning and implementation.
3. Goa has become the first 'Har Ghar Jal' state by providing 100% household tap connections in rural areas under Jal Jeevan Mission.

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

International Relations/Organizations

Q.29) Consider the following statements:

1. The objective of the initiative on Critical and Emerging Technology (iCET) is to enhance cooperation in critical and emerging technologies between India and the US.
2. United States, United Kingdom, India, and Japan are the members of the Quadrilateral Security Dialogue (Quad).

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.30) Which one of the following is NOT a pillar of India's Neighbourhood First Policy?

- a) Strengthening bilateral ties
- b) Promoting regional security and stability
- c) Encouraging unilateral trade concessions for neighbours
- d) Enhancing people-to-people connectivity

Q.31) In which one of the following ways does the adoption of a United Nations Security Council (UNSC) resolution impact the legal obligations of UN member states?

- a) Member states can choose whether or not to comply
- b) Member states are legally obligated to comply with the resolution
- c) Member states must seek approval from their national parliaments before complying
- d) Member states are only morally obligated to comply

Q.32) Consider the following statements:

- 1. The BRICS members include 30% of the world's land surface and 41% of the global population.
- 2. All members states of BRICS are members of the G20.
- 3. BRICS countries produce about 44% of the world's crude oil.

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) With reference to the Group of Seven (G7), which of the following statements are correct?

- 1. The G7 is an intergovernmental organization consisting of the major developed economies of the world.
- 2. Russia was a member of the G7.
- 3. The G7 focuses exclusively on economic issues and does not address global security concerns or environmental challenges.
- 4. G7 countries represent a minority of the global population.

Select the correct answer using the codes given below:

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

Q.34) Consider the following pairs:

International Agreements-----Features

- 1. India-Japan Industrial Competitiveness Partnership----- Improving economic connectivity and infrastructure development across multiple regions.
- 2. India-Middle East-Europe Economic Corridor----- Enhancing industrial competitiveness through technological and manufacturing collaboration.
- 3. Migration and Mobility Agreement----- Facilitating the movement of skilled professionals and managing migration flows.

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

Economy

Q.35) Consider the following statements:

1. India's shipbuilding and financing dominates the world.
2. Indian seafarer remittances contribute approximately 15% of all foreign direct investment in India annually.

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.36) Consider the following:

1. Population size of the state
2. Fiscal responsibility of the state government
3. Level of economic development in the state
4. The cost of providing essential services in the state

Which of the above factors are considered when determining the devolution of taxes to states?

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

Q.37) Consider the following statements:

1. The financial sector appears healthy when lending expands.
2. India's household debt-service-to-income ratio is among the highest in the world.
3. A household debt boom adds to productive capacity in the economy in the long term.

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.38) Which of the following statements are correct?

1. When a country holds significant gold reserves, it can influence the exchange rate of its currency.
2. Gold is often used as a hedge against inflation.
3. India is one of the largest exporters of gold.
4. When the US dollar depreciates, gold prices tend to rise, and vice versa.

Select the correct answer using the codes given below:

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

Q.39) Consider the following statements:

1. The Consumer Price Index (CPI) is calculated based on a variable basket that changes every year.
2. Appreciation of the domestic currency is one of the causes of food price inflation.

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.40) Consider the following:

1. Stock markets
2. External debt servicing costs
3. Domestic borrowing costs

How many of the above in India will be impacted if the US Federal Reserve increases the interest rate?

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

Q.41) Consider the following statements:

1. There has been a significant reduction in the consumption gap between the top and bottom income groups in urban areas.
2. The expansion of rural roads under the Pradhan Mantri Gram Sadak Yojana (PMGSY) and their integration with National Highways have enhanced connectivity and altered consumption patterns in rural areas.
3. Southern and northern states have lower average Monthly Per Capita Consumption Expenditure (MPCE) compared to eastern states.

Which of the statements given above are correct?

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

Q.42) Consider the following statements regarding the Non-Banking Financial Companies (NBFCs):

1. NBFCs cannot accept deposits repayable on demand.
2. NBFCs are allowed to offer interest rates higher than banks.
3. Deposit insurance facility is available for deposits with NBFCs.
4. The RBI has the power to cancel the Certificate of Registration of an NBFC.

How many of the above statements are correct?

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

Q.43) Which one of the following is generally considered a structural cause behind a country's persistent trade deficit?

- a) Overvalued domestic currency
- b) Lack of export competitiveness
- c) Strong domestic economic growth
- d) Rising global commodity prices

Q.44) Compared to the Consumer Price Index (CPI), Wholesale Price Index (WPI):

- a) Is a more accurate measure of overall inflation in the economy.
- b) Responds to price changes faster due to its focus on earlier stages of the supply chain.
- c) Includes the cost of services along with goods.
- d) Is directly relevant to the spending habits of individual consumers.

Environment

Q.45) With reference to the Placenta Mammals, consider the following statements:

1. They have a placenta that nourishes the fetus during gestation.
2. African elephant is a placental mammal.
3. Placental mammals are classified under the subclass Eutheria.

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.46) With reference to the Przewalski's horse (Asian wild horse), consider the following statements:

1. They have shorter legs compared to domestic horses.
2. They have a large head, thick neck, and an erect mane with no forelock.
3. They are categorized as 'Extinct in the Wild' in the IUCN List of Threatened Species.

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) Consider the following statements:

1. The ocean absorbs over 90% of excess heat from global warming, resulting in higher ocean temperatures and sea-level rise.
2. The principle of 'prevention or no harm rule' requires states to regulate shared natural resources to avoid significant transboundary harm to other states.
3. International Tribunal for the Law of the Sea (ITLOS) decisions are binding only on the states that are directly involved in the dispute.

How many of the statements given above are correct?

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

Q.48) With reference to the Nagarhole Tiger Reserve, consider the following statements:

1. Moyar River separates Nagarhole National Park from Bandipur National Park.
2. Project Tiger is the primary conservation initiative under which Nagarhole Tiger Reserve operates.

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.49) Consider the following statements:

Statement-I: India is the world's largest source of nitrous oxide (N₂O).

Statement-II: India uses a significant amount of nitrogen-based fertilizers.

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

- a) Both Statement-I and Statement-II are correct and Statement-II is the correct explanation for Statement-I
- b) Both Statement-I and Statement-II are correct and Statement-II is not the correct explanation for Statement-I
- c) Statement-I is correct but Statement-II is incorrect
- d) Statement-I is incorrect but Statement-II is correct

Q.50) Which one of the following animals can generate name-like calls during contact calls, addressing another individual specifically?

- a) Elephant
- b) Leopard
- c) Orangutan
- d) Chimpanzee

Q.51) With reference to Binsar Wildlife Sanctuary, consider the following statements:

- 1. The primary vegetation type found in the sanctuary is temperate broadleaf forest.
- 2. The sanctuary is famous for its conservation efforts of Bengal Tiger.
- 3. One of the key objectives behind establishing the sanctuary is for conserving the broad-leaved oak forests.

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.52) Consider the following statements:

- 1. Magnetic resonance imaging (MRI) scanners work by using strong magnetic fields and radio waves to generate images of internal organs.
- 2. Positron emission tomography (PET) is a type of MRI scan.

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) In modern astronomy, which one of the following is the significance of Hydrogen Line?

- a) It helps in detecting black holes.
- b) It is used to study the structure and dynamics of galaxies.
- c) It is used to measure the temperature of stars.
- d) It helps in identifying exoplanets.

Q.54) Consider the following pairs:

Aditya's L1 Payloads-----Features

1. Visible Emission Line Coronagraph (VELC)-----To measure and analyze the energy and mass of solar wind electrons and ions.
2. Solar Ultraviolet Imaging Telescope (SUIT)-----To study the Sun's ultraviolet emissions and capture high-resolution images of the Sun's atmosphere.
3. High Energy L1 Orbiting X-ray Spectrometer (HEL1OS) ----To observe the dynamic events in the solar corona and provide high-resolution X-ray spectra of solar flares
4. Plasma Analyser Package for Aditya (PAPA)----To image the solar corona and study the temperature, velocity, density, and heating of the solar corona

How many of the above pairs are correctly matched?

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

Q.55) Consider the following:

1. Telecommunications
2. Scientific research
3. Military operations
4. Wristwatches
5. Global Positioning System

In how many of the above areas do 'atomic clocks' find application?

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

Q.56) Consider the following:

1. Weather forecasting
2. Breaking complex encryption codes
3. Simulating the behaviour of large molecules for drug discovery
4. Sending high-definition videos

Which of the above are potential applications of quantum computers?

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

Q.57) Consider the following statements:

1. Human immunodeficiency virus (HIV) has more variants circulating in a single patient than influenza generates in a year worldwide.
2. The human immune system produces antibodies specific to viral surface proteins through A-cells.

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.58) Consider the following statements:

1. Antimicrobial resistance can automatically lead to the increased risk of developing chronic diseases like diabetes and cancer.
2. Rational antibiotic use is key to combating antimicrobial resistance (AMR) crisis.

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

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

Q.59) The 'Truenat platform' was seen in the news recently is related to:

- a) The development of a rapid molecular test for diagnosing tuberculosis.
- b) A new method for COVID-19 vaccination.
- c) An innovative approach to cancer treatment.
- d) A breakthrough in diabetes management.

Q.60) With reference to the introduction of Calling Name Presentation (CNAP) in telecommunication networks, consider the following statements:

1. It will facilitate mobile number portability by the user without the need of visiting the store.
2. It requires the originating service provider to send the caller's name during call setup.

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

Answer Key

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

Answers & Explanations

Art & Culture and Medieval History

1. Correct Answer is (C)

- The sarod instrument evolved from the Afghan rabab (an instrument with a similar long neck, strings, and a skin belly), which was brought to India in the 16th century and later developed into its modern form in the 19th century. Sarod is a stringed instrument made of coconut shell, tun wood, drone, shikri, and ivory. This is a traditional instrument that is found in various parts of North India. A popular plucked instrument, it is used in North Indian classical music for solo concerts.

Source: [The Hindu](#)

2. Correct Answer is (C)

- Raja Parba is a unique three-day festival celebrated in Odisha that honours womanhood, fertility, and the menstrual cycle. It derives its name from the words 'Raja' meaning menstruation and 'Parba' meaning festival. The festival is based on the belief that Mother Earth (Bhudevi or Bhumi), considered the wife of Lord Vishnu, undergoes menstruation during these three days. It marks the Earth's period of rejuvenation before the arrival of the monsoon season.

Source: [AIR](#)

3. Correct Answer is (B)

- Statement 1 is incorrect. The Satnamis were not Sufi mystics. They were a Hindu sect in northern India, particularly in the region of present-day Haryana. The Satnamis were known for their strict adherence to monotheism and rejection of idol worship, but they were not associated with Sufism.
- Statement 2 is correct. The Satnami revolt occurred during the reign of Mughal Emperor Aurangzeb in 1672. The revolt was a significant uprising against the Mughal authorities due to oppressive policies and heavy taxation.

Source: [Forum IAS](#)

Geography

4. Correct Answer is (B)

- Statement 1 is incorrect. During the summer solstice in the northern hemisphere, which occurs around June 21, the Sun is directly overhead at the Tropic of Cancer (23.5° N latitude), not at the equator.
- Statement 2 is correct. During the summer solstice, the Arctic Circle experiences 24 hours of daylight, a phenomenon known as the "midnight sun".

Source: [AIR](#)

5. Correct Answer is (B)

- A heat dome occurs when a high-pressure system traps a mass of hot air, causing prolonged periods of high temperatures and often leading to extreme heat waves.

Source: [The Hindu](#)

6. Correct Answer is (D)

- Statements 1, 2 and 4 are correct. The North Indian Ocean is the least active tropical cyclone basin, generating fewer cyclones compared to the Pacific Ocean, which is the most active basin. The Indian Ocean, particularly the western tropical Indian Ocean, has been warming at a rate faster than any other region of the tropical oceans. The enhanced warming of the tropical Indian Ocean influences wind circulation patterns, which in turn affect the heat uptake in the Pacific Ocean and modulate global warming rates.

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- Statement 3 is incorrect. The northern boundary of the Indian Ocean is closed off by the Asian landmass, with only tiny connections to the Persian Gulf and the Red Sea. The southern Indian Ocean is connected to the Pacific and Southern Oceans through oceanic tunnels.

Source: [The Hindu](#)

7. Correct Answer is (B)

- Craters are formed by the high-velocity impact of smaller objects like meteorites, asteroids or comets striking the surface of a larger solid body like a planet or moon.

Source: [The Hindu](#)

8. Correct Answer is (C)

- Darfur is a region in the westernmost part of Sudan. It roughly corresponds to the five present-day states of Sudan - West Darfur, North Darfur, South Darfur, East Darfur, and Central Darfur. It is bordered by Chad to the west, the Central African Republic to the southwest, and Libya to the northwest. The region consists mainly of a semi-arid plain, with the Marrah Mountains, a range of volcanic peaks.

Source: [AIR](#)

Polity

9. Correct Answer is (A)

- Statements 1, 2 and 4 are incorrect. The highest-ranking position in the Union Council of Ministers is the Prime Minister, followed by the Deputy Prime Minister (if any), and then the Cabinet Ministers. According to the Constitution of India, the total number of ministers in the Council of Ministers must not exceed 15% of the total number of members of the Lok Sabha. The concept of "collective responsibility" means that all ministers share joint responsibility for decisions and must support them publicly, even if they personally disagree. If a minister cannot support a decision, they are expected to resign.
- Statement 3 is correct. The Union Council of Ministers includes categories such as Cabinet Ministers, Ministers of State (Independent Charge), and Ministers of State.

Source: [AIR](#)

10. Correct Answer is (B)

- Heinous Crimes with Severe Punishments: FTSCs primarily handle cases involving heinous crimes, such as rape and sexual assault, especially those under the Protection of Children from Sexual Offences (POCSO) Act.
- Corruption and Economic Offences Cases: FTSCs also deal with cases involving corruption and economic offenses, particularly those investigated by the Central Bureau of Investigation (CBI).
- Property disputes exceeding a specific value limit: These are generally not handled by FTSCs, which focus on criminal cases.
- Matrimonial disputes and cases related to domestic violence: FTSCs typically don't handle civil matters like matrimonial disputes.

Source: [The Hindu](#)

11. Correct Answer is (B)

- Statement 1 is incorrect. In the FPTP system, the candidate with the most votes wins, even if they do not secure more than 50% of the votes.
- Statements 2 and 3 are correct. FPTP often results in a discrepancy between the percentage of votes received and the number of seats won, as it tends to over-represent larger parties and under-represent smaller ones. PR systems aim to allocate seats in the legislature proportionally to the votes received by political parties.

Source: [The Hindu](#)

12. Correct Answer is (B)

- Statements 1 and 2 are correct. The QCI is the apex organization responsible for setting up and overseeing India's third-party national accreditation system. This system ensures the credibility and competence of certification bodies that evaluate adherence to quality standards across various sectors. The Chairperson of QCI is appointed by the Prime Minister of India.
- Statement 3 is incorrect. While QCI promotes quality standards, it doesn't directly conduct inspections. Its primary function is to accredit certification bodies that have the expertise to assess companies or organizations against specific quality standards. These accredited certification bodies then perform the inspections and issue relevant quality certifications.

Source: [AIR](#)

13. Correct Answer is (A)

- Statement 1 is correct. The concept of SCS was introduced based on the recommendations of the Fifth Finance Commission in 1969. It was done to benefit a few States through special grants from the Centre. The focus was on States that had socio-economic issues and geographical disadvantages, such as hilly States.
- Statement 2 is incorrect. The primary objective of granting SCS is to assist the development of states that face geographical and socio-economic disadvantages, not to grant greater autonomy in managing resources.

Source: [The Hindu](#)

14. Correct Answer is (C)

- Statements 1, 2 and 3 are correct. The Supreme Court has held that the right to be informed about the grounds of arrest flows from Article 22(1) of the Constitution, and any infringement of this fundamental right would vitiate the process of arrest and remand. The Supreme Court has clarified that there is no need for an accused to be arrested in every case while submitting a charge sheet. If the accused has not been arrested during the investigation and has cooperated, the accused can seek remedies like anticipatory bail, exemption from personal appearance, or regular bail. Currently, there is no explicit legal requirement to provide a copy of the arrest memo to the accused at the time of arrest. Although the arrest memo includes important details and is signed by both the IO and the accused, the law does not mandate that a copy be provided to the accused.

Source: [The Hindu](#)

15. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. The Speaker and Deputy Speaker are elected by a simple majority of the members present and voting in the Lok Sabha. The Constitution of India does not prescribe any specific qualifications for being elected as the Speaker. The Speaker often represents the Lok Sabha and speaks on its behalf in public or at international events.

Source: [Forum IAS](#)

16. Correct Answer is (B)

- Statements 1 and 3 are correct. Traditionally, the Indian Parliament holds three sessions each year: The Budget Session (February to May), The Monsoon Session (July to September), The Winter Session (November to December). The process of impeachment of the President can be initiated in either House of Parliament, including the Lok Sabha. The resolution to impeach the President must be passed by a two-thirds majority of the total membership of the House initiating the process. If the resolution is passed, it is then sent to the other House, which investigates the charges. If the second House also passes the resolution by a two-thirds majority of the total membership, the President stands impeached.
- Statement 2 is incorrect. According to Article 85 of the Indian Constitution, there should not be a gap of more than six months between two sessions of Parliament.

Source: [The Hindu](#)

17. Correct Answer is (C)

- Statements 1, 2 and 4 are correct. Article 24 of the Indian Constitution prohibits employment of children below the age of 14 years in any factory, mine or other hazardous employment. The Child Labour (Prohibition and Regulation) Amendment Act, 2016 prohibits employment of children below 14 years in all occupations and processes, both hazardous and non-hazardous. However, it allows children to help in family enterprises and work as artists, provided it does not affect their education. The PENCIL portal launched by the government monitors and tracks child labour cases for effective enforcement of laws against child labour.
- Statement 3 is incorrect. According to the 2011 Census data, Uttar Pradesh had the highest number of child workers among states followed by Bihar.

Source: [AIR](#)

18. Correct Answer is (A)

- Statements 1 and 3 are incorrect. The Speaker is elected by the Lok Sabha members from among themselves. The Prime Minister does not propose the name of the candidate for Speaker. The senior-most member of the Lok Sabha, known as the Pro-tem Speaker, presides over the first sitting of a newly elected Lok Sabha and conducts the election of the Speaker.
- Statement 2 is correct. The Speaker should not hold any office of profit under the government to avoid any conflict of interest.

Source: [AIR](#)

19. Correct Answer is (A)

- NCRB has launched a Mobile App “NCRB Sankalan of Criminal Laws” to serve as a comprehensive guide providing complete information about the new criminal laws at one place. This App is a compilation of new criminal laws namely Bharatiya Nayaya Sanhita, Bharatiya Nagrik Suraksha Sanhita and Bharatiya Sakshya Adhinyam. It provides an Index linking all Chapters and Sections of the new laws.

Source: [AIR](#)

20. Correct Answer is (A)

- The Upper Yamuna River Board (UYRB) consists of one nominee each from the states of Uttar Pradesh, Uttarakhand, Haryana, Rajasthan, Himachal Pradesh, and the National Capital Territory of Delhi, along with representatives from other central agencies. The board is responsible for regulation and supply of water from all storages and barrages up to and including the Okhla Barrage, Maintenance of minimum flow in the Yamuna from ecological considerations, Framing rules and regulations for water accounting and keeping concurrent records of flows and withdrawals, etc.

Source: [AIR](#)

21. Correct Answer is (A)

- Statement 1 is correct. Opposition is the largest non-government party or coalition of parties who are elected representatives of peoples, who are not members of the ruling party. Opposition is the essence of any democratic governance.
- Statement 2 is incorrect. An inclusive society recognizes and celebrates the diversity of its members, promoting equal opportunities and eliminating barriers to full participation. It goes beyond mere coexistence, aiming for the genuine integration of all individuals, regardless of their origin, gender, sexual orientation, abilities, or any other unique traits." Inclusivity does not mean the absence of differences but the harmonious coexistence of these differences.

Source: [The Hindu](#)

22. Correct Answer is (B)

- Statement 1 is incorrect. The Central Information Commission (CIC) is a statutory body established under the Right to Information Act, 2005. It does not have any constitutional status.
- Statement 2 is correct. The Right to Information Act, 2005 allows citizens to file an appeal with the Central Information Commission if their request for information is denied by a public authority. The CIC can then direct the public authority to provide the requested information.

Source: [The Hindu](#)

23. Correct Answer is (B)

- Statements 1 and 2 are incorrect. The Inter-State Council is not a permanent constitutional body, but rather a recommendatory body established through a Presidential Order based on Article 263 of the Constitution. The Inter-State Council is not responsible for adjudicating or resolving inter-state water disputes. This function is generally carried out by tribunals constituted under the Inter-State River Water Disputes Act, 1956.
- Statements 3 and 4 are correct. The Inter-State Council is supposed to meet at least three times a year, although in practice it has met far less frequently. The Prime Minister of India is the Chairman of the Inter-State Council.

Source: [The Hindu](#)

Acts & Policies

24. Correct Answer is (B)

- Statement 1 is incorrect. The PM Kisan Samman Nidhi Yojana provides financial support of Rs. 6,000 annually to eligible farmers, disbursed in three equal installments of Rs. 2,000 each.
- Statements 2 and 3 are correct. The Ministry of Agriculture and Farmers Welfare is responsible for the implementation of the PM Kisan Samman Nidhi Yojana. Institutional landholders are excluded from receiving benefits under the PM Kisan Samman Nidhi Yojana. The scheme targets individual small and marginal farmers, not institutions holding land.

Source: [AIR](#)

25. Correct Answer is (C)

- Pradhan Mantri Awas Yojana (PMAY) is a flagship housing scheme launched by the Government of India with the aim of providing affordable housing to the urban and rural poor. The scheme is divided into two main components: PMAY-Urban (PMAY-U) and PMAY-Gramin (PMAY-G). Free electricity connection for the new house is not a benefit under PMAY.

Source: [AIR](#)

26. Correct Answer is (C)

- The Namami Gange Programme is an Integrated Conservation Mission launched by the Government of India in June to accomplish the twin objectives of effective abatement of pollution and conservation and rejuvenation of the National River Ganga. Its main pillars are: Sewage Treatment Infrastructure, River-Front Development, River-Surface Cleaning, Biodiversity Conservation, Afforestation, Public Awareness, Industrial Effluent Monitoring, Ganga Gram (Villages on Ganga banks).

Source: [AIR](#)

27. Correct Answer is (B)

- Statements 1 and 3 are incorrect. The Interest Equalisation Scheme is designed to provide subsidies on interest rates for pre-shipment and post-shipment export credit to eligible exporters, particularly in the Micro, Small, and Medium Enterprises (MSME) sector. Its primary goal is to make Indian exports more competitive by reducing the financing costs for exporters. The IES is available to a broad range of exporters, including those in the MSME sector and manufacturers, regardless of their participation in the Production Linked Incentive (PLI) scheme.

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- Statement 2 is correct. For export products to qualify under the IES, they must originate from India, which includes meeting the criteria for substantial value addition if imported inputs are used. This ensures that the exported goods are sufficiently processed or manufactured in India, adhering to the rules of origin as outlined in the Foreign Trade Policy.

Source: [The Hindu](#)

28. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. The primary objective of the Jal Jeevan Mission is to provide Functional Household Tap Connections (FHTCs) to every rural household by 2024. This mission aims to ensure safe and adequate drinking water through individual household tap connections. JJM prioritizes the participation of women self-help groups (SHGs) in the planning and implementation of the mission. Women are encouraged to be actively involved in decision-making processes, which includes planning, implementation, and maintenance of water supply infrastructure. Goa has become the first 'Har Ghar Jal' state by providing 100% household tap connections in rural areas under the Jal Jeevan Mission.

Source: [The Hindu](#)

International Relations/Organizations

29. Correct Answer is (A)

- Statement 1 is correct. The iCET aims to enhance cooperation in critical and emerging technologies between India and the US, focusing on areas such as artificial intelligence, quantum computing, semiconductors, and wireless telecommunication.
- Statement 2 is incorrect. The members of the Quad are the United States, Australia, India, and Japan.

Source: [The Hindu](#)

30. Correct Answer is (C)

- The pillars of India's Neighbourhood First Policy include strengthening bilateral ties, promoting regional security and stability, and enhancing people-to-people connectivity. However, encouraging unilateral trade concessions for neighbours is not a pillar of this policy.

Source: [AIR](#)

31. Correct Answer is (B)

- UNSC resolutions are legally binding on all UN member states under Article 25 of the UN Charter, which states that members agree to accept and carry out the decisions of the Security Council.

Source: [The Hindu](#)

32. Correct Answer is (C)

- Statements 1 and 3 are correct. The BRICS members encompass approximately 29.3% of the world's land surface and 41% of the global population. The expanded BRICS group now collectively represents about 44% of global crude oil production.
- Statement 2 is incorrect. Not all BRICS member states are members of the G20. For example, South Africa is the only African member of the G20, and some of the newly added BRICS members like **Ethiopia and Iran are not part of the G20.**

Source: [AIR](#)

33. Correct Answer is (C)

- Statements 1, 2 and 4 are correct. The G7 is an intergovernmental political and economic forum consisting of Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, which are major advanced economies. Russia was a member of the G7 from 1997 until 2014, when it was suspended following the annexation of Crimea. During that period, the group was known as the G8. The G7 countries represent around 10% of the world's population but generate about 45%

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of global GDP. They also account for about 75% of global official development assistance recorded by the OECD. So, the G7 countries represent a minority of the global population but a significant portion of global GDP and economic power.

- Statement 3 is incorrect. While the G7 was initially focused on economic issues, over the years it has broadened its agenda to cover a wide range of global issues, including foreign and security policy, trade, climate change, development, and more.
- Note: The G7's share of the world's population has been decreasing since 2000, mainly due to the growth of other countries' populations, such as China and India. The G7's share of the world's GDP has also declined over time, from nearly 70% in 1989 to 44% in 2021.

Source: [AIR](#)

34. Correct Answer is (A)

- Only 3 is correctly matched
- **India-Japan Industrial Competitiveness Partnership:** This initiative focuses on enhancing industrial competitiveness through technological and manufacturing collaboration between India and Japan.
- **India-Middle East-Europe Economic Corridor:** This initiative seeks to improve economic connectivity and infrastructure development across the regions involved.
- **Migration and Mobility Agreement:** This agreement aims to facilitate the movement of skilled professionals and manage migration flows between India and other countries.

Source: [AIR](#)

Economy

35. Correct Answer is (B)

- Statement 1 is incorrect. India has become a significant player in global shipping, with many Indian seafarers manning ocean-going ships. However, it does not dominate the world in shipbuilding and financing.
- Statement 2 is correct. Indian seafarer remittances are typically equivalent to some 15% of all foreign direct investment that comes into the country every year.

Source: [The Hindu](#)

36. Correct Answer is (D)

- Population size of the state: This is a significant factor in the devolution formula. The 15th Finance Commission, for instance, assigns a 15% weightage to the population based on the 2011 Census.
- Fiscal responsibility of the state government: This is indirectly considered through the "Tax Effort" criterion, which rewards states for higher tax collection efficiency. The 15th Finance Commission assigns a 2.5% weightage to tax and fiscal efforts.
- Level of economic development in the state: This is considered through the "Income Distance" criterion, which measures the distance of a state's income from the state with the highest per capita income. States with lower per capita income receive a higher share to maintain equity. The 15th Finance Commission assigns a 45% weightage to income distance.
- The cost of providing essential services in the state: This factor is indirectly considered through various grants and the overall assessment of state needs. The Finance Commission also considers the cost of providing essential services when recommending grants-in-aid to states facing revenue deficits.

Source: [AIR](#)

37. Correct Answer is (A)

- Statements 1 and 2 are correct. When lending expands, it often indicates that financial institutions are confident in the economy and are willing to extend credit to households and businesses. This can be seen as a sign of a healthy financial sector. India's household debt-service ratio (DSR) is approximately 12%, which is higher than that of many advanced economies such as China, France, the UK, and the US, despite these countries having higher household debt levels.

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- Statement 3 is incorrect. A debt boom can lead to increased consumption in the short term, but it doesn't necessarily translate to long-term productive capacity growth. In fact, excessive household debt can lead to financial strain and hinder future investment.

Source: [The Hindu](#)

38. Correct Answer is (C)

- Statements 1, 2 and 4 are correct. Holding significant gold reserves can enhance a country's economic stability and influence the exchange rate of its currency. Central banks often use gold reserves to support their currencies during turbulent times. Gold is widely regarded as a hedge against inflation because its value tends to remain stable or increase when the purchasing power of fiat currencies declines. There is an inverse relationship between the value of the US dollar and gold prices. When the US dollar depreciates, gold prices tend to rise, and when the US dollar appreciates, gold prices tend to fall.
- Statement 3 is incorrect. India is not one of the largest exporters of gold; rather, it is one of the largest importers of gold. In 2022, India imported \$35.8 billion in gold, making it the 5th largest importer of gold in the world.

Source: [The Hindu](#)

39. Correct Answer is (D)

- Statements 1 and 2 are incorrect. The CPI is calculated based on a fixed basket that does not change every year. Appreciation of the domestic currency does not cause food price inflation; rather, it is the depreciation of the currency that can lead to higher imported food prices and inflation.

Source: [The Hindu](#)

40. Correct Answer is (C)

- **Stock Markets:** An increase in US interest rates can lead to capital outflows from emerging markets, including India, as investors seek higher returns in the US. This can cause a decline in stock market indices in India due to reduced foreign investment.
- **External Debt Servicing Costs:** Higher US interest rates can lead to a stronger US dollar, increasing the cost of servicing external debt for countries like India, which have debt denominated in US dollars.
- **Domestic Borrowing Costs:** A global rise in interest rates often follows a US Fed rate hike. This can make it more expensive for Indian businesses and individuals to borrow money domestically as Indian banks may raise their interest rates to stay competitive with international markets.

Source: [AIR](#)

41. Correct Answer is (A)

- Statements 1 and 2 are correct. As per the Survey on Household Consumption Expenditure (HCES) for 2022-23, there has been a significant reduction in the consumption gap between the top and bottom income groups in urban areas. A decline in the Gini coefficient across urban and rural areas suggests a reduction in income inequality between 2011-12 and 2022-23. The decline is sharper in urban areas. The expansion of rural roads under the Pradhan Mantri Gram Sadak Yojana (PMGSY) and their integration with National Highways, have enhanced connectivity and altered consumption patterns in rural areas.
- Statement 3 is incorrect. Reports suggest that Southern and northern states have higher average MPCE compared to eastern states. Average MPCE in the southern and northern States remains close to twice as high as that in their eastern counterparts. Southern and northern states generally have higher average MPCE compared to eastern states.

Source: [The Hindu](#)

42. Correct Answer is (C)

- Deposit insurance facility is not available for deposits with NBFCs. Unlike banks which are covered under deposit insurance (up to a specific limit), deposits with NBFCs are not insured.
- NBFCs are not allowed to accept deposits that are repayable on demand. They can only accept deposits for a minimum period of 12 months and a maximum period of 60 months.
- NBFCs can offer higher interest rates on deposits compared to banks, subject to a ceiling rate prescribed by the RBI. Currently, the maximum interest rate an NBFC can offer is 12.5% per annum.
- The RBI has the authority to cancel the registration of an NBFC under certain circumstances, such as failure to pay the required premium for three consecutive periods or if the NBFC is prohibited from accepting fresh deposits.

Source: [The Hindu](#)

43. Correct Answer is (B)

- Structural factors like low productivity, lack of innovation, poor infrastructure etc. can hamper the competitiveness of a country's exports in the global market. This lack of competitiveness is a key structural reason for persistent trade deficits.

Source: [The Hindu](#)

44. Correct Answer is (B)

- The WPI typically responds to price changes faster because it measures the prices of goods at the wholesale level, which is at an earlier stage in the supply chain compared to the retail prices tracked by the CPI. This makes WPI a leading indicator of price changes that might eventually affect consumer prices.

Source: [The Hindu](#)

Environment

45. Correct Answer is (D)

- Statements 1, 2 and 3 are correct. Placental mammals, or eutherians, possess a complex placenta that provides nutrients and oxygen to the developing fetus. The African elephant is a placental mammal and falls under the subclass Eutheria, which includes all mammals that give birth to live young that have been nourished prior to birth via a placenta.

Source: [Forum IAS](#)

46. Correct Answer is (A)

- Statements 1 and 2 are correct. Przewalski's horses are described as stockily built with shorter legs compared to domestic horses. They have a large head, thick neck, and an erect mane with no forelock. These horses are genetically distinct from domestic horses and have a unique evolutionary history.
- Statement 3 is incorrect. They are currently listed as Endangered on the IUCN Red List.

Source: [The Hindu](#)

47. Correct Answer is (C)

- Statements 1, 2 and 3 are correct. Covering more than 70% of Earth's surface, our global ocean has a very high heat capacity. It has absorbed 90% of the warming that has occurred in recent decades due to increasing greenhouse gases, and the top few meters of the ocean store as much heat as Earth's entire atmosphere. The no-harm rule is a widely recognised principle of customary international law whereby a State is duty-bound to prevent, reduce and control the risk of environmental harm to other states. ITLOS rulings are legally binding only on the parties directly involved in the specific dispute brought before the tribunal.

Source: [The Hindu](#)

48. Correct Answer is (B)

- Statement 1 is incorrect. The Kabini River separates Nagarhole National Park from Bandipur National Park. Nagarhole National Park, also known as Rajiv Gandhi National Park, is a wildlife reserve in the South Indian state of Karnataka. Part of the Nilgiri Biosphere Reserve, the park is backed by the Brahmagiri Mountains and filled with sandalwood and teak trees
- Statement 2 is correct. Project Tiger is the primary conservation initiative under which Nagarhole Tiger Reserve operates.

Source: [The Hindu](#)

49. Correct Answer is (D)

- Statement I is incorrect. India is the world's second-largest source of nitrous oxide (N₂O), a potent greenhouse gas. In 2020, India accounted for nearly 11% of global man-made N₂O emissions, second only to China at 16%.
- Statement II is correct. The major source of N₂O emissions in India comes from the use of nitrogen-based fertilizers. According to a global assessment, agricultural production using nitrogen fertilizers and animal manure contributed 74% of total anthropogenic N₂O emissions in the last decade.

Source: [The Hindu](#)

50. Correct Answer is (A)

- As per a recent study, elephants have their own names that they use to address each other. This research places elephants among the very small number of species known to address one another in this way. Wild African elephants use name-like calls to address each other, a rare behaviour among nonhuman animals.

Source: [The Hindu](#)

51. Correct Answer is (C)

- Statements 1 and 3 are correct. Binsar is a protected wildlife area comprising oak, rhododendron and pine forests on a mountain rising up to 8000 ft. It is situated 30 kilometres north east of Almora in the Kumaon region of the state of Uttarakhand in North India. It is home to temperate broadleaf forests, primarily consisting of oak and rhododendron trees at higher altitudes. One of the main reasons for establishing Binsar as a wildlife sanctuary in 1988 was to conserve and protect the shrinking broad-leaved oak forests of the Central Himalayan region.
- Statement 2 is incorrect. Bengal Tiger is not found in the sanctuary.

Source: [AIR](#)

Science & Technology

52. Correct Answer is (A)

- Statement 1 is correct. MRI scanners use strong magnetic fields and radio waves to produce detailed images of the inside of the body.
- Statement 2 is incorrect. PET scans and MRI scans are different types of imaging techniques. PET scans use a radioactive tracer to show how tissues and organs are functioning, while MRI scans use magnetic fields and radio waves to create detailed images of the body's structures.

Source: [The Hindu](#)

53. Correct Answer is (B)

- The hydrogen line is important for studying the structure, dynamics, and mapping of galaxies like the Milky Way by detecting the radiation from hydrogen clouds within galaxies.

Source: [The Hindu](#)

54. Correct Answer is (B)

- 2 and 3 are correctly matched.

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- Visible Emission Line Coronagraph (VELC) – It is designed to image the solar corona and study its dynamics, including coronal mass ejections (CMEs) and magnetic field measurements.
- Plasma Analyser Package for Aditya (PAPA) – It is an energy and mass analyzer for in-situ measurements of solar wind electrons and ions, not for imaging the solar corona.

Source: [The Hindu](#)

55. Correct Answer is (C)

- Atomic clocks are used for high-speed data transfer and synchronization in telecommunications. Atomic clocks are used in various scientific research, including geophysics, metrology, and testing theories of relativity. Atomic clocks are used for precise timekeeping in military applications. Atomic clocks are integral to the functioning of GPS and other global navigation satellite systems. However, wristwatches are not a common application area for atomic clocks, as they are typically too large and complex for consumer-grade wristwatches.

Source: [The Hindu](#)

56. Correct Answer is (A)

- **Weather forecasting:** Weather forecasting involves simulating and analyzing vast amounts of data related to atmospheric conditions. Quantum computers can potentially handle these large datasets more efficiently and run more complex models than classical computers, leading to more accurate and timely weather predictions.
- **Breaking complex encryption codes:** One of the most well-known potential applications of quantum computers is their ability to break complex encryption codes.
- **Simulating the behaviour of large molecules for drug discovery:** Quantum computers are expected to revolutionize drug discovery by simulating the behaviour of large molecules at the quantum level.
- **Sending high-definition videos:** This is not a potential application of quantum computers. Sending high-definition videos is a data transmission task that does not necessarily require the unique capabilities of quantum computers.

Source: [The Hindu](#)

57. Correct Answer is (A)

- Statement 1 is correct. HIV is a highly mutable virus, meaning it constantly changes its genetic makeup. This rapid mutation allows HIV to evade the immune system and creates a vast pool of variants within a single infected person. This is significantly more than the number of variants generated by influenza globally in a year.
- Statement 2 is incorrect. The human immune system produces antibodies specific to viral surface proteins through B cells, not A cells. B cells are activated by T cells and then differentiate into plasma cells that produce antibodies tailored to the specific viral proteins they encountered.

Source: [The Hindu](#)

58. Correct Answer is (B)

- Statement 1 is incorrect. AMR does not directly cause chronic diseases such as diabetes or cancer. However, AMR can complicate the management and treatment of these chronic diseases.
- Statement 2 is correct. Rational use of antibiotics is crucial in the fight against AMR. Proper prescribing practices, ensuring the right antibiotic is used for the right infection, and avoiding unnecessary use are essential measures to slow the spread of resistance.

Source: [The Hindu](#)

59. Correct Answer is (A)

- The Truenat Platform is an innovative, indigenous molecular diagnostic platform developed by Molbio Diagnostics, a Goa-based company in India. It is a real-time quantitative micro-PCR

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system designed to provide rapid and accurate diagnosis of various infectious diseases, including tuberculosis (TB).

Source: [The Hindu](#)

60. Correct Answer is (D)

- Statements 1 and 2 are incorrect. CNAP is a supplementary service that displays the caller's name to the called party, it has no direct relation to mobile number portability. The caller's name (CNAM) is not sent by the originating service provider during call setup. Instead, the terminating service provider performs a database lookup using the caller's phone number to retrieve the name information from a trusted data source and display it to the called party. It aims to empower subscribers to identify callers and take an informed decision on receiving calls from unknown/spam callers.

Source: [The Hindu](#)