

# 10 PM Current Affairs Quiz Weekly Compilation

For UPSC CSE Prelims

November, 2023 3rd Week

# Index

Ancient India, Art & Culture and Medieval India	2
Modern Indian History	2
Geography	3
Indian Polity	6
Acts, Policies, Schemes, Reports	6
International Relations/Organizations	10
Economy	12
Environment	13
Science & Technology	15
Answer Key	17
Answers & Explanation	18

# Ancient India, Art & Culture and Medieval India

# Q.1) Which one of the following represents the correct chronological order of capturing the Kondaveedu Fort?

- a) Reddi dynasty- Vijayanagara empire- Golconda Sultans- French
- b) Gajapati Dynasty- Hoysala Dynasty- Chola Dynasty- Vijayanagara Empire
- c) Wodeyar Dynasty-Nizams of Hyderabad- Maratha Empire- British East India Company
- d) Gupta Empire-Mewar Dynasty- Delhi Sultanate- Mughal Empire

## Q.2) Consider the following pairs:

Tribes-----Festivals

1. Ao-----Moatsu

2. Sumi-----Tuluni

3. Sangtam-----Sekrenyi

4. Zeliang-----Ngada

#### Which of the above pairs are correctly matched?

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

# **Modern Indian History**

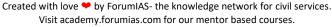
#### Q.3) Consider the following statements:

**Statement-I:** Tribal Pride Day (Janjatiya Gaurav Diwas) is celebrated on the birth anniversary of Birsa Munda.

**Statement-II:** The state Odisha was founded on the birth anniversary of Birsa Munda.

# 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.4) Consider the following statements:

- 1. He was an Italian Jesuit missionary and Tamil scholar.
- 2. He had maintained a close friendship with Chanda Sahib, the Nawab of the Carnatic.
- 3. He abstained from the "use of flesh and fish".

# Which one of the following personalities has been described above?

- a) Wolfgang Amadeus Mozart
- b) Constantine Joseph Beschi
- c) Benjamin Franklin
- d) Thomas Jefferson

# Geography

# Q.5) With reference to the Ogasawara Island chain, which of the following statements are correct?

- 1. It is a UNESCO World Heritage site.
- 2. The Ogasawara Islands are part of the Ryukyu Islands.
- 3. The Ogasawara Islands have a subtropical climate with warm, humid summers and mild, wet winters.

# Select the correct answer using the codes given below:

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

# Q.6) Which one of the following statements best describes the "Phreatomagmatic Volcanic Eruptions"?

- a) It occurs when magma interacts with water.
- b) These eruptions are characterized by frequent, relatively small explosions of gas and volcanic fragments, often producing incandescent lava fountains and ejecting volcanic bombs and ash into the air.
- c) These are eruptions that occur beneath glaciers or ice caps
- d) These are characterized by the relatively gentle effusion of basaltic lava from fissures or vents.





# Q.7) Consider the following pairs:

Dams-----Functions

- 1. Gravity dams-----Resists water pressure by its own weight
- 2. Earth dams-----Resists water pressure by transferring the force to the bedrock through its arched shape
- 3. Buttress Dam----- Resists water pressure by the strength of the earth and rock materials used in its construction

# How many of the above pairs are correctly matched?

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

## Q.8) Subansiri River is the tributary of -

- a) Ganga River
- b) Narmada River
- c) Brahmaputra River
- d) Krishna River

# Q.9) With reference to Geoglyph, consider the following statements:

- 1. These are winding pathways often created on the ground, typically using stones or other materials.
- 2. They primarily served as a burial site during the Iron Age.

# Which of the statements given above is/are correct?

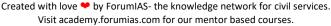
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

# Q.10) Consider the following statements:

- 1. It is the highest navigable lake globally.
- 2. It is the largest freshwater lake in South America.
- 3. The lake was once seen as a deity by the pre-Columbian people that lived on its shores.

# Which one of the following lakes has been described above?

- a) Nahuel Huapi Lake
- b) Lake Titicaca
- c) Lake Maracaibo
- d) Lake General Carrera





# Q.11) Which of the following is/are the reasons behind the surge in seismic activity in Iceland?

- 1. Geological Location
- 2. Magma Activity beneath the surface
- 3. Weather Conditions
- 4. Cosmic Events

## Select the correct statements using the codes given below:

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

# Q.12) Consider the following statements:

- 1. The United States is the largest producer of gold.
- 2. The largest resources of gold ore (primary) in India are located in Bihar.
- 3. Gold supply in India is primarily met through imports.

# How many of the statements given above are correct?

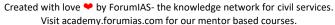
- a) Only one
- b) Only two
- c) All three
- d) None

# Q.13) Consider the following statements:

- 1. Pench-Kanhan Coalfield comprises about 98 percent of the total reserves and 99 percent of the production of coal in India.
- 2. India's largest ignite deposits are at Neyveli in Tamil Nadu.
- 3. India is a major importer of coal, and its imports have been steadily increasing in recent years.

# 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





# **Indian Polity**

# Q.14) With reference to the Indian Polity, consider the following statements:

- 1. Speaker's jurisdiction to adjourn sine die can be utilised to keep the House in a perpetual session.
- 2. The Governor has the right to address and send message, summon, prorogue and dissolve the State Legislature.
- 3. When an ordinary Bill is reserved by a Governor for the consideration of the President, the President may declare assent, withhold assent, or direct the Governor to return the bill for reconsideration.
- 4. Money bills in the State Legislature are introduced only with the prior approval of the Governor. Which of the statements given above are correct?
- a) 1, 2 and 3 only
- b) 2 and 3 only
- c) 2, 3, and 4 only
- d) 3 and 4 only

## Q.15) Which one of the following statements is correct regarding the 'Delimitation Commission'?

- a) The Commission has the power to make changes to the electoral process.
- b) The Commission's primary goal is to ensure equal representation for all demographic groups within electoral boundaries.
- c) The Commission analyzes the census data to identify areas with significant population changes.
- d) The Commission is responsible for conducting regular censuses to determine population changes and redraw electoral boundaries accordingly.

# Q.16) Under the Indian criminal law, "life imprisonment is the rule and death penalty the exception". Which one of the following best explains the statement?

- a) The death penalty cannot be imposed in India in cases where life imprisonment is adequate.
- b) The death penalty in India should be imposed only for heinous crimes.
- c) Life imprisonment is more effective at deterring crime than the death penalty.
- d) Life imprisonment is a more humane punishment than the death penalty

# Acts, Policies, Schemes, Reports

# Q.17) Consider the following statements:

- 1. Consumer Protection Act, 2019 establishes consumer protection councils to protect the rights of the consumers at both the national and state levels.
- 2. Central Consumer Protection Authority (CCPA) is responsible for protecting consumer privacy and preventing data breaches.

#### 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

Created with love ♥ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.



#### Q.18) Consider the following statements:

- 1. The FIDE Grand Swiss Tournament is a French-system of tennis tournament, forming part of the qualification for the World Tennis Championship.
- 2. India has become the winner in both men's and women's category at the FIDE Grand Swiss Tournament 2023.

## 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.19) Consider the following pairs with reference to the operations launched by the Railway Protection Force (RPF):

Operations----- Purpose

- Operation Uplabdh------To curb illegal selling of railway tickets
- 2. Operation Sanraksha--- --- To provide security to lady passengers travelling in trains
- 3. Operation Seva-----To curb Illegal Goods Transport
- 4. Operation AAHT----- Against Human Trafficking

## 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.20) Consider the following statements:

**Statement-I:** The Chief Commissioner of Persons with Disabilities (CCPD) is an officer in the government who is responsible for safeguarding the rights and interests of persons with disabilities. **Statement-II:** The Chief Commissioner of Persons with Disabilities (CCPD) is responsible for providing educational opportunities to persons with disabilities.

# 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.21) Consider the following statements:

- 1. The National Disaster Management Authority (NDMA) is responsible for issuing evacuation orders during natural disasters.
- 2. Prime Minister acts as chairman of the NDMA.
- 3. NDMA Cell Broadcast Alert System is a state-of-the-art technology that allows government to send critical and time-sensitive messages for disaster management to all mobile devices within a designated geographical area.

# How many of the above statements are correct?

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

# Q.22) With reference to the Digital Advertisement Policy 2023, how many of the given statements are correct?

- 1. It introduces competitive bidding for rate discovery, ensuring transparency and efficiency.
- 2. Digital audio platforms are recognized as one of the entities for government advertisements.
- 3. The policy establishes a grievance redressal mechanism for consumers to address issues related to digital advertisements.

# Select the correct answer from the codes given below:

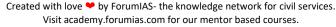
- a) Only one
- b) Only two
- c) All three
- d) None

# Q.23) With reference to 'AAINA Dashboard for Cities' portal, recently launched by Ministry of Housing and Urban Affairs (MoHUA), consider the following statements:

- 1. It aims to create a robust database of the key performance metrics of Urban Local Bodies.
- 2. The dashboard will rank Urban Local Bodies based on their performance using a set of predefined criteria and metrics.
- 3. Delivery of Basic Services is one of the pillars that will be used by the portal in providing information on status and progress of the Urban Local Bodies.

# Which of the statements given above is/are correct?

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





# Q.24) With reference to the Faster Adoption and Manufacturing of Hybrid & Electric Vehicles in India (FAME India Scheme), consider the following statements:

- 1. The scheme only covers electric vehicles manufactured in India.
- 2. It provides financial support for the electrification of public and shared transportation, including electric and hybrid buses, electric three-wheelers, electric four-wheeler passenger cars, and electric two-wheelers.

# 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.25) Which one of the following is the objective of Scholarships for Higher Education for Young Achievers Scheme (SHREYAS)?

- a) It offers financial support to SC/ST/OBC students pursuing higher education at the post-matric level.
- b) It aims to provide financial assistance in the form of fellowships and interest subsidy to eligible students from OBCs and EBCs to pursue higher education in various recognized universities, research, and scientific institutions.
- c) It offers financial assistance to SC students pursuing M.Phil and Ph.D. programs in recognized universities and institutions.
- d) It offers scholarships to students with disabilities to facilitate their access to education and skill development programs.

# Q.26) Which one of the following is the objective of Viksit Bharat Sankalp Yatra, recently launched by the Prime Miniter of India?

- a) It aims to promote sustainable growth and infrastructure development in rural areas.
- b) It aims to inspire young entrepreneurs to invest in rural India and contribute to its economic development.
- c) It aims to inform the people of India about the government's various schemes and programs that are aimed at promoting inclusive growth and development.
- d) It encourages sustainable agricultural practices and entrepreneurship in rural areas.





# **International Relations/Organizations**

# Q.27) With reference to the Ministerial Conference of the World Trade Organization (WTO) consider the following statements:

- 1. It is the topmost decision-making body of the WTO.
- 2. The decisions made at the conference are legally binding for all member countries.
- 3. The conference is restricted to the individuals who are members of the WTO.

# How many of the above statements are correct?

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

# Q.28) With reference to the World Meteorological Organization (WMO) consider the following statements:

- 1. It is a specialized agency of the United Nations (UN) dedicated to international cooperation in the field of meteorology, operational hydrology, and related geophysical sciences.
- 2. Intergovernmental Panel on Climate Change (IPCC) Reports is published by the WMO.
- 3. India is an active member of the WMO and contributes to its work in a number of ways.

# Which of the statements given above is/are correct?

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

# Q.29) The UK government is planning to add India into the "Safe States List". Which of the following may be the implications of the decision for India?

- 1. Indian citizens who enter the UK legally will have a higher chance of being granted asylum.
- 2. Indian citizens who are in the UK illegally will have less access to support services, such as housing and healthcare.
- 3. If an Indian citizen is found to have no right to remain in the UK, they will be removed from the country more quickly.

# 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.30) With reference to the World Organisation for Animal Health (WOAH) consider the following statements:

- 1. It is a UN organization focused on promoting and regulating the use of animals in medical research.
- 2. It has been recognized as the reference organization for international animal health standards by the World Trade Organization (WTO)
- 3. India is one of the members of the WOAH.

# Which of the statements given above is/are correct?

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

# Q.31) Consider the following statements with reference to the Asia-Pacific Economic Cooperation (APEC):

- 1. It is a regional economic organization that promotes trade liberalization and economic cooperation among its member economies in the Asia-Pacific region.
- 2. It also ensures the security of member countries in the Asia-Pacific region.
- 3. APEC economies make up roughly 60% of global GDP.
- 4. India is one of the member countries of APEC.

## How many of the above statements are correct?

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

# Q.32) Which one of the following is correct regarding the Ben Gurion Canal Project, seen in the news recently?

- a) It is a shipping route in the Arctic Ocean that is opening up as the polar ice caps melt.
- b) It is a proposed canal that would connect the Caribbean Sea with the Pacific Ocean and potentially rival the Panama Canal.
- c) It is proposed alternative route for shipping between the Red Sea and the Mediterranean Sea.
- d) It is a proposed waterway that would cut through Thailand and connect the Indian Ocean with the Pacific Ocean, potentially reducing travel times for ships.





# Q.33) With reference to the Indo-Pacific Regional Dialogue (IPRD), consider the following statements:

- 1. It is an exclusive forum for India and its immediate neighbors to discuss regional security issues.
- 2. The IPRD is attended by all the representatives of the QUAD nations.
- 3. It promotes mutual understanding and trust among maritime stakeholders, fostering a more secure and stable Indo-Pacific region.

# Which of the statements given above are correct?

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

# **Economy**

# Q.34) Centre for Advanced Financial Research and Learning (CAFRAL) is an independent body established by the Reserve Bank of India. Which one of the following best describes its function?

- a) It provides investment advice and manage assets of the Non-Banking Financial Company (NBFCs).
- b) It assists the Reserve Bank of India (RBI) in regulatory and supervisory activities.
- c) It offers financial services such as insurance to the public.
- d) It provides training and education to researchers, policymakers, and practitioners in banking and finance.

# Q.35) With reference to Insolvency and Bankruptcy Code (IBC) 2016, which one of the following statements is correct?

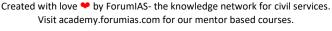
- a) It allows companies to indefinitely delay the resolution process for their insolvency issues, leading to a delay for creditors and stakeholders.
- b) It emphasizes maximizing the value of the assets of the insolvent entity for the benefit of all stakeholders, including creditors, employees, and shareholders.
- c) It prevents creditors from pursuing debtors for repayment.
- d) Under the IBC, debtors have the flexibility to employ a wide-range of approach of their choice for settling their debts, including the utilization of cryptocurrencies.

# Q.36) With reference to the Surety bonds, consider the following statements:

- 1. Surety bonds are a type of investment where one can earn guaranteed high returns.
- 2. If one purchases a surety bond, one can make money when the principal defaults.
- 3. Surety bonds are primarily used by individuals to secure personal loans and mortgages.

# How many of the statements given above are correct?

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





#### Q.37) Consider the following statements with reference to the "Sovereign Green Bonds":

- 1. Purchasing Sovereign Green Bonds exempts investors from paying taxes on their other investments, resulting in significant tax savings.
- 2. Investing in Sovereign Green Bonds guarantees a financial return equal to the value of the carbon emissions reduced by the issuing government.
- 3. Investing in Sovereign Green Bonds contributes to reducing a country's national debt.

# How many of the statements given above are correct?

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

# **Environment**

# Q.38) Consider the following statements:

**Statement-I:** The Pusa-44 paddy often leads to stubble burning, leading to air pollution and environmental concerns.

**Statement-II:** Pusa-44 is a high-yielding variety of long-duration paddy taking around five months to mature from sowing to harvesting.

#### 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.39) The government is planning to establish Pump Storage Projects (PSP) in de-coaled coal mines. Which of the following are the potential advantages of PSPs?

- 1. PSPs absorb excess electricity from the grid and store it in underground batteries, making them ideal choice for storing renewable energy.
- 2. PSPs are well-suited for all types of geographic locations.
- 3. PSPs provides a reliable and rapid response to changes in electricity demand, generating power during peak periods to helping in grid stability.
- 4. PSPs power plants can be designed to manage water resources effectively, ensuring responsible use and minimizing environmental impact.

# Select the correct statements using the codes given below:

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



# Q.40) Consider the following statements:

- 1. The Forest Conservation Amendment Act of 2023 for the first time has defined the term forests and shifted it from the State to the Concurrent List, allowing both state and central legislation.
- 2. Under the Indian Forest (IF) Act of 1927, State Forest Departments oversee Reserve Forests (RF), as well as Protected Forests (PF).

# 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.41) Consider the following gases:

- 1. Carbon Dioxide (CO2)
- 2. Methane (CH4)
- 3. Sulfur Dioxide (SO2)
- 4. Nitrogen Dioxide (NO2)
- 5. Carbon Monoxide (CO)

# Which of the gases listed above are classified as greenhouse gases, and are also responsible for causing air pollution?

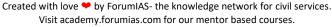
- a) 1 and 2 only
- b) 2, 3, 4 and 5 only
- c) 3, 4 and 5 only
- d) 1, 2, 3, 4 and 5

# Q.42) Consider the following missions:

- 1. National Mission for Sustaining the Himalayan Ecosystem (NMSHE)
- 2. National Action Plan on Climate Change (NAPCC)
- 3. National Mission on Sustainable Habitat (NMSH)

# How many of the above missions are only focused on restoring the Himalayan Ecosystem?

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





# **Science & Technology**

# Q.43) Consider the following events:

- 1. Communication problems
- 2. Volcanic eruptions
- 3. Meteor Strikes
- 4. Navigation issues
- 5. Satellite damage
- 6. Auroras
- 7. Lunar Eclipse

# Which of the above events will likely be caused by a Geomagnetic storm?

- a) 1, 2, 3, 4, and 7 only
- b) 2, 3, 4, 5 and 6 only
- c) 1, 4, 5 and 6 only
- d) 1, 3, 4, 5, and 7 only

# Q.44) The "loop quantum gravity" and "bounce-out theory" was seen in the news sometimes, are used in the context of -

- a) White Holes
- b) Trojan Stars
- c) Earth's Gravitational Pull
- d) Solar Eclipse

# Q.45) Consider the following statements:

- 1. The Sukhoi Su-30MKI, also known as the Flanker-H, is a multirole fighter jet developed by Sukhoi Aviation Corporation and Hindustan Aeronautics Limited (HAL) for the Indian Air Force.
- 2. The Su-30MKI is a highly maneuverable aircraft, and it is capable of performing a wide range of air-to-air and air-to-surface missions.

# 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.46) Consider the following statements:

- 1. They are found both in freshwater and saltwater environments.
- 2. They are prokaryotic organisms.
- 3. They lack the specialized tissues and organs that characterize land plants.

#### Which of the characteristics mentioned above are correct with respect to algae?

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

Created with love ♥ by ForumIAS- the knowledge network for civil services.

Visit academy.forumias.com for our mentor based courses.



## Q.47) With reference to the Electric Batteries, consider the following statements:

- 1. An electric battery is a device that stores electrical energy in the form of chemical energy and releases it as electrical power when needed.
- 2. The first true battery was invented by the Italian physicist Alessandro Volta.
- 3. Electric batteries are a source of perpetual energy.
- 4. Lead Acid Batteries can be used in electronic devices.

# How many of the statements given above are correct?

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

# Q.48) Exercise BONGOSAGAR is a naval exercise conducted between which one of the following?

- a) India and Sri Lanka
- b) India and Myanmar
- c) India and Bangladesh
- d) India and Maldives

# Q.49) At times, Saturn's ring system becomes nearly invisible when viewed from Earth. Which one of the following phenomena is linked to this disappearance of Saturn's rings?

- a) Gravitational pull of Jupiter
- b) Ring Material Migration
- c) Ring plane crossing
- d) Moon shadow on the rings

# Q.50) In the context of physics, which of the following statements are correct with reference to the concept of 'Force'?

- 1. A force-carrier is any species of particle that mediates the interactions between particles that experience that force.
- 2. Force is an agent that induces an object to change its velocity.
- 3. The stronger the force, the faster an object will move.
- 4. Weak force is responsible for certain kinds of radioactive decay.

# Select the correct answer using the codes given below:

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





# **Answer Key**

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

# **Answers & Explanation**

#### Ancient India, Art & Culture and Medieval India

# 1. Correct option is (A)

• The Kondaveedu Fort was constructed by Prolaya Vema Reddy and was used as the capital by the Reddy dynasty between 1328 and 1482. It was taken by the Vijayanagara emperor Krishnadevaraya in 1516. The Golconda Sultans fought for the fort in 1531, 1536, and 1579, and Sultan Quli Qutb Shah finally captured it in 1579, renaming it Murtazanagar. The French also captured the fort in the 18th century. It passed on to the British East India Company who got control of the fort in 1788 but abandoned it in the early 19th century in favour of Guntur.

#### **Source:** ForumIAS

#### 2. Correct option is (A)

- 1 and 2 are correctly matched. Sangtam tribes celebrate Ngada Festival while Zeliang tribes celebrate Chapchar Kut Festival.
- Further, Putu Mende is a governance system of the Ao community. Aos were the first nagas to embrace Christianity and incorporate Western education.

#### **Source:** ForumIAS

# **Modern Indian History**

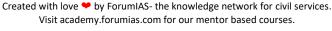
## 3. Correct option is (C)

- Statement 1 is correct. Tribal Pride Day (Janjatiya Gaurav Diwas) is celebrated on the birth anniversary of Birsa Munda (15<sup>th</sup> November). It is an annual celebration in India that commemorates the contributions of tribal communities to the nation's history, culture, and development.
- Statement 2 is incorrect. The state of Odisha was not founded on the birth anniversary of Birsa Munda. Birsa Munda was born on November 15, 1875, while Odisha was established as a separate state on April 1, 1936. However, the state of Jharkhand was founded on the birth anniversary of Birsa Munda.

#### **Source: ForumIAS**

# 4. Correct option is (B)

- Constantine Joseph Beschi, also known under his Tamil name Veeramamunivar, was an Italian Jesuit priest, missionary in South India, and Tamil language littérateur. Beschi made significant contributions to Tamil literature in several genres, including poetry, prose, and grammar. He is best known for his epic poem "Tembavani," which is considered one of the greatest masterpieces of Tamil literature. He had also maintained a close friendship with Chanda Sahib, the Nawab of the Carnatic. He had even acted as his Dewan.
- He held the office of Dewan in Tiruchi till 1740. He abstained from the "use of flesh and fish". He also studied Sanskrit, Telugu, and Tamil assiduously and became a master of these languages, especially Tamil.





# Geography

# 5. Correct option is (C)

- Statements 1 and 3 are correct. Ogasawara Islands chain is a volcanic archipelago of over 30 subtropical and tropical islands located around 1,000 kilometers south-southeast of Tokyo, Japan. The Ogasawara Islands are a UNESCO World Heritage Site due to their unique biodiversity and undisturbed ecosystems.
- The Ogasawara Islands are part of the Izu-Bonin-Mariana Arc, a chain of volcanic islands formed by the subduction of the Pacific Plate beneath the Izu-Bonin Plate. The islands are primarily composed of basalt and andesite, and they are still volcanically active.
- The Ogasawara Islands have a subtropical climate with warm, humid summers and mild, wet winters.
- Statement 2 is incorrect. The Ogasawara Islands are part of the Nanpo Islands, which are a chain of small islands that extend from Japan to Guam. The Ryukyu Islands are a separate chain of islands that are located to the southwest of the Ogasawara Islands, closer to Taiwan and the Philippines.

Source: ForumIAS

# 6. Correct option is (A)

• Phreatomagmatic eruptions occur when magma comes into contact with water, causing the water to flash into steam, resulting in explosive eruptions. These eruptions are characterized by the explosive release of steam, water, and volcanic materials, such as ash, rocks, and volcanic gases. New islands in Japan are mainly formed through phreatomagmatic eruptions.

Source: ForumIAS

## 7. Correct option is (A)

- a) Gravity Dam Resists the horizontal thrust of water by its own weight.
- b) Arch Dam Resists the horizontal thrust of water by transferring it to the gorge walls by transferring the force to the bedrock through its arched shape
- c) Buttress Dam Resists the horizontal thrust of water by transferring it to a series of buttresses.
- d) Earth Dam Resists the horizontal thrust of water by its own weight and the shear strength of the earthfill.
- e) Rockfill Dam Resists the horizontal thrust of water by its own weight and the shear strength of the rockfill.

**Source: ForumIAS** 

## 8. Correct option is (C)

Subansiri River is the tributary of the river Brahmaputra. It originates in the Tibet Plateau and enters India through Miri hills in Arunachal Pradesh. It is also known as Gold River due to the presence of gold deposits in its riverbed and due to the presence of gold particles in its waters and the alluvial deposits along its banks. It passes through Arunachal Pradesh and Assam.



# 9. Correct option is (D)

• Statements 1 and 2 are incorrect. Geoglyph refers to a design that is drawn on the earth. Geoglyphs are not typically used as pathways, but rather as large designs or patterns created on the ground. They can be made from various materials, including stones, but also earth, vegetation, and other natural materials. Geoglyphs are primarily artistic or symbolic creations on the landscape and are not intended for burial purposes. Burial sites from the Iron Age are generally marked by features such as barrows, cairns, or megalithic structures, but they are not the same as geoglyphs. Examples of Geoglyph: Nazca Lines in Peru, Uffington White Horse in England.

Source: ForumIAS

## 10. Correct option is (B)

- Lake Titicaca is the highest navigable lake globally, situated at an elevation of 3,810 meters above sea level. It is also the largest freshwater lake in South America, covering an area of 8,372 square kilometers.
- The lake is divided into two nearly distinct subbasins, and these are connected by the Strait of Tiquina. The Pre-Columbian cultures, such as the Incas and the Aymara, considered Lake Titicaca a sacred site, believing it to be the birthplace of the sun and the moon.

Source: ForumIAS

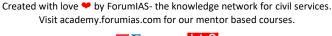
## 11. Correct option is (A)

- Iceland is currently facing a notable surge in seismic activity due its geological location as Iceland's position on top of a volcanic hotspot and on the Mid-Atlantic Ridge plays a role in the increased seismic activity. The movement of magma beneath the surface also contributes to earthquakes and volcanic activity.
- While weather conditions can affect the severity of earthquakes, they are not directly responsible for the increased seismic activity. There's also no scientific evidence to suggest that cosmic events, such as solar flares or asteroid impacts, are responsible for the increased seismic activity in Iceland.

Source: ForumIAS

## 12. Correct option is (B)

- Statement 1 is incorrect. As of 2022, China is the largest producer of gold, followed by Australia and Russia. The United States ranks fourth in gold production.
- Statements 2 and 3 are correct. Bihar is home to the largest gold deposits in India, primarily located in the Kolar Gold Fields (KGF) region. These deposits are estimated to hold over 600 million tonnes of gold ore. Bihar (44%) is followed by Rajasthan (25%), Karnataka (21%), West Bengal (3%), Andhra Pradesh (3%) and Jharkhand (2%).
- India is a net importer of gold, with domestic production only meeting a small portion of the country's demand. The countries from which India imports most of its gold are Switzerland and UAE. India's share in the global gold production is less than 0.05%.





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

- Statement 1 is incorrect. Gondwana coal comprises about 98 percent of the total reserves and 99 percent of the production of coal in India. Gondwana coal is said to be about 250 million years old.
- Statements 2 and 3 are correct. India's largest lignite deposits are indeed at Neyveli in Tamil Nadu. Neyveli. Lignite Corporation India Limited (NLCIL) operates the lignite mines in Neyveli, which are crucial for the country's energy production.
- India is the world's second-largest coal importer, after China. In the financial year 2022-23, India imported 254 million tonnes of coal, worth around \$23 billion. This was a 22% increase from the previous year. The 5 major coal importers to India are Indonesia, Australia, South Africa, USA & Russia.
- Further, India is the world's second-largest coal producer and 5th largest country in terms of coal deposits. During 2022-2023, the four major coal producing states were Odisha (24.52%), Chhattisgarh (20.70%), Jharkhand (17.52%) and Madhya Pradesh (16.35%). These four states together contributed about 79.08% of the total coal production in the country.

Source: ForumIAS

## **Indian Polity**

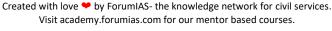
## 14. Correct option is (C)

- Statement 1 is incorrect. A perpetual session refers to a situation where a legislative body or parliamentary session is kept in continuous or indefinite session without a specific end date or adjournment. Hence, speaker's jurisdiction to adjourn sine die cannot be utilised to keep the House in a perpetual session.
- Statements 2, 3 and 4 are correct. The governor has the right to address and send message, summon, prorogue and dissolve the State Legislature. When an ordinary Bill is reserved by a Governor for the consideration of the President, the President may declare assent, withhold assent, or direct the Governor to return the bill for reconsideration. Money bills in the State Legislature are introduced only with the prior approval of the Governor.

**Source: ForumIAS** 

#### 15. Correct option is (C)

- The Delimitation Commission is a statutory body established by the Indian government under the Delimitation Commission Act, and its primary function is to redraw the boundaries of each assembly and Lok Sabha seat based on population changes to ensure fair representation.
- The commission analyzes the census data to identify areas with significant population changes and redraws the electoral boundaries accordingly.
- The commission does not have the power to make changes to the electoral process, the commission's primary goal is not equal representation for all demographic groups, but rather fair representation based on population distribution, the commission does not conduct censuses. Hence, option C is correct.





# 16. Correct option is (A)

- The statement "life imprisonment is the rule and death penalty the exception" means that in Indian criminal law, life imprisonment is typically considered the standard or default punishment, while the death penalty is reserved for specific and exceptional circumstances.
- Hence, the statement "The death penalty cannot be imposed in India in cases where life imprisonment is adequate" reflects the legal principle that life imprisonment is the primary form of punishment, and the death penalty is reserved for exceptional cases where life imprisonment is deemed inadequate. This aligns with the legal framework and the emphasis on the rule of law in determining the appropriateness of the death penalty in India.
- Further, the Indian Supreme Court has held that the death penalty should only be imposed in cases where life imprisonment is not enough to satisfy the "interests of justice." This means that if the court determines that life imprisonment will adequately address the gravity of the crime and protect the public, then the death penalty should not be imposed.

**Source: ForumIAS** 

# Acts, Policies, Schemes, Reports

## 17. Correct option is (A)

- Statement 1 is correct. The Consumer Protection Act, 2019 establishes three-tier consumer protection councils at the national, state, and district levels. These councils are responsible for protecting the rights of consumers and promoting consumer awareness.
- The Consumer Protection Act, 2019 repeals and replaces the Consumer Protection Act, 1986. The new Act aims to provide a more comprehensive and effective framework for consumer protection in India.
- Statement 2 is incorrect. The CCPA's primary function is to protect consumer rights and interests in the context of unfair trade practices and consumer exploitation. While data privacy and data breach prevention are related to consumer protection, they fall under the purview of different regulatory bodies in India.

Source: ForumIAS

#### 18. Correct option is (B)

- Statement 1 is incorrect. The FIDE Grand Swiss Tournament is a Swiss-system chess tournament, forming part of the qualification for the World Chess Championship. It is held every two years, and the top two players in the tournament qualify for the Candidates Tournament, which is the next step in the qualification process for the World Chess Championship.
- Statement 2 is correct. India made a historic sweep at the FIDE Grand Swiss Tournament 2023, held on the Isle of Man from October 25 to November 5, 2023. Grandmaster Vidit Gujrathi emerged victorious in the men's category, while International Master R. Vaishali claimed the top spot in the women's section.





#### 19. Correct option is (B)

• 1 and 4 are correctly matched. Operation Sanraksha was to maintain passenger safety and protect railway services and Operation Seva was to assist those in need during rail travels.

Source: ForumIAS

#### 20. Correct option is (C)

- Statement 1 is correct. The Chief Commissioner of Persons with Disabilities (CCPD) is an officer in the government who is responsible for safeguarding the rights and interests of persons with disabilities. The CCPD works to ensure that persons with disabilities have access to the same opportunities and protections as everyone else.
- Statement 2 is incorrect. While the CCPD advocates for disability-inclusive education, they do not directly provide educational opportunities or services. Providing educational opportunities to persons with disabilities is the responsibility of the Ministry of Social Justice and Empowerment, which works in coordination with the CCPD.

Source: ForumIAS

## 21. Correct option is (B)

- Statement 1 is incorrect. The NDMA is not responsible for issuing evacuation orders during disasters. The responsibility for issuing evacuation orders lies with the local authorities, such as the district administration or the police. The NDMA's role is to provide guidelines and support to the local authorities in their evacuation planning and response efforts.
- NDMA is the apex statutory body for disaster management in India. its vision is to build a safer
  and disaster resilient India by a holistic, pro-active, technology driven and sustainable
  development strategy.
- Statements 2 and 3 are correct. The Prime Minister is the chairperson of the NDMA and has the ultimate responsibility for its functions and performance.
- NDMA Cell Broadcast Alert System is a state-of-the-art technology that allows government to send critical and time-sensitive messages for disaster management to all mobile devices within a designated geographical area. It has been developed by Centre for Development of Telematics (C-DOT) under Department of Telecommunication.

**Source: ForumIAS** 

# 22. Correct option is (C)

- Statements 1, 2 and 3 are correct. Digital Advertisement Policy 2023 enable and empower the Central Bureau of Communication (CBC) to undertake campaigns in the Digital Media Space.
- The policy allows CBC to empanel five types of entities for government advertisements: Internet websites and mobile apps (news websites and apps, travel websites, etc.), Over the top (OTT) video on demand platforms (such as Disney+Hotstar), Digital audio platforms (such as Spotify), Social media platforms (such as Facebook, Twitter) and Media agencies for digital campaigns.
- It introduces competitive bidding for rate discovery, ensuring transparency and efficiency. Rates discovered through this process will remain valid for three years and will be applicable





to all eligible agencies. The policy establishes a grievance redressal mechanism for consumers to address issues related to digital advertisements.

Source: ForumIAS

## 23. Correct option is (B)

- Statements 1 and 3 are correct. AAINA Dashboard for Cities' portal aims to create a robust database of the key performance metrics of Urban Local Bodies.
- Its objective is to help cities to see how they are faring vis-à-vis other cities, inspire them by pointing to possibilities and areas of improvement and provide opportunity to learn and engage with frontrunners.
- The dashboard will provide information on status and progress of the ULBs on five pillars: 1) Political & Administrative Structure, 2) Finance, 3) Planning, 4) Citizen Centric Governance and 5) Delivery of Basic Services.
- This dashboard will inspire the ULBs by pointing to possibilities and areas of improvement and providing them the opportunity to learn and engage with frontrunners.
- Statement 2 is incorrect. AAINA dashboard will not rank ULBs. It would serve as a tool for comparing similarly placed cities and promoting peer learning among cities.

Source: ForumIAS

# 24. Correct option is (B)

- Statement 1 is incorrect. The FAME India Scheme provides incentives for both electric vehicles manufactured in India and those imported into the country.
- Statement 2 is correct. FAME Scheme provides financial support for the electrification of public and shared transportation, including electric and hybrid buses, electric three-wheelers, electric four-wheeler passenger cars, and electric two-wheelers. The scheme aims to reduce India's dependence on fossil fuels and promote the use of clean and sustainable transportation. It provides financial incentives to both manufacturers and consumers of EVs.

Source: ForumIAS

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

- The Scholarships for Higher Education for Young Achievers Scheme (SHREYAS) is a Central Sector Scheme launched by the Ministry of Social Justice and Empowerment.
- The scheme aims to provide financial assistance in the form of fellowships and interest subsidy to eligible students from Other Backward Classes (OBCs) and Economically Backward Classes (EBCs) to pursue higher education in various recognized universities, research, and scientific institutions. The duration of the scheme is from 2021-22 to 2025-26.

Source: ForumIAS

#### 26. Correct option is (C)

• The Viksit Bharat Sankalp Yatra aims to inform the people of India about the government's various schemes and programs that are aimed at promoting inclusive growth and development. It also aims to enroll potential beneficiaries of these schemes by collecting details during the yatra. The Yatra is being conducted in two phases and is being conducted





by a team of government officials and volunteers. The team is visiting villages, towns, and cities across the country. The schemes that will be publicized through the yatra include Ayushman Bharat; PMJAY PM Garlb Kalyan Anna Yojana; Deendayal Antyodaya Yojana among others. Five specially designed IEC (Information, Education and Communication) Vans will carry the message of the Government's flagship welfare programmes.

**Source: ForumIAS** 

# **International Relations/Organizations**

#### 27. Correct option is (A)

- Statement 1 is correct. The Ministerial Conference is the highest decision-making body within the WTO structure. It brings together all WTO members, which are countries or customs unions, to review and address trade-related issues.
- Statements 2 and 3 are incorrect. While the decisions made at the conference are important, they are not legally binding for all member countries. The WTO operates on a consensus-based decision-making process, which means that all members must agree to any decision made at the conference.
- The Ministerial Conference is not restricted to individuals who are members of the WTO. While only WTO members can participate in the decision-making process, the conference is open to observers, including non-governmental organizations, intergovernmental organizations, and the media.

Source: ForumIAS

#### 28. Correct option is (B)

- Statements 1 and 3 are correct. WMO is a specialized agency of the United Nations (UN) dedicated to international cooperation in the field of meteorology, operational hydrology, and related geophysical sciences. It handles international cooperation and coordination on the state of the Earth's atmosphere. It is formed for exchanging weather data and research. It was established in 1950-originated from the International Meteorological Organisation (IMO). It headquarters at Geneva, Switzerland.
- India is an active member of the WMO and contributes to its work in a number of ways. For example, India hosts a number of WMO regional training centers and provides technical assistance to developing countries. India also participates in a number of WMO research programs.
- Statement 2 is incorrect. The IPCC reports are actually produced by the IPCC, which is a separate intergovernmental body established by the UN.

Source: ForumIAS

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

- The UK government's proposed addition of India to the Safe States List is expected to have several implications for Indian citizens seeking asylum in the UK. The Safe States List is a designation given to countries that are deemed to be safe and stable, and where there is no widespread human rights abuse.
- Following will be the implication of the decision:





- a) It will be more difficult for Indian citizens to claim asylum in the UK on the basis of persecution in their home country.
- b) Those found to be in the UK illegally will be removed more quickly, as they will no longer have the right to claim asylum.
- c) Indian citizens who enter the UK illegally will have a significantly reduced chance of being granted asylum. This is because the Safe States List designation means that the UK government will not consider India to be a country from which people are fleeing persecution.
- d) Indian citizens who are in the UK illegally will have less access to support services, such as housing and healthcare. This is because the Safe States List designation means that they will not be considered to be refugees and will not be entitled to the same level of support.
- e) Indian citizens who are found to be in the UK illegally are likely to be deported more quickly. The Safe States List designation means that the UK government will prioritize the deportation of Indian nationals.
- However, it is important to note that Indian citizens who are in the UK legally will not be affected by this decision. They will still be able to access support services and live and work in the UK as before.

Source: ForumIAS

## 30. Correct option is (C)

- Statement 1 is incorrect. The World Organisation for Animal Health (WOAH) is not focused on promoting and regulating the use of animals in medical research. Instead, it focuses on safeguarding the trade of animals and animal products worldwide, improving public sanitation, and promoting international cooperation in the joint defense of epidemic diseases.
- Statements 2 and 3 are correct. WOAH has been recognized as the reference organization for international animal health standards by the World Trade Organization (WTO). This means that the WOAH's standards are the basis for the WTO's sanitary and phytosanitary (SPS) measures that regulate the international trade in animals and animal products.
- India is one of the members of the WOAH.

Source: ForumIAS

#### 31. Correct option is (B)

- Statements 1 and 3 are correct. The Asia-Pacific Economic Cooperation (APEC) is a regional economic forum established in 1989 to promote free trade throughout the Asia-Pacific region.
- APEC's member economies aim to create greater prosperity for the people of the region by promoting balanced, inclusive, sustainable, innovative and secure growth and by accelerating regional economic integration.
- It promotes trade liberalization and economic cooperation among its member economies in the Asia-Pacific region. APEC economies make up roughly 60% of global GDP.
- Statements 2 and 4 are incorrect. APEC is solely focused on economic matters, not security. India is not currently a member of APEC.





# 32. Correct option is (C)

- The Ben Gurion Canal Project is a proposed alternative route for shipping between the Red Sea and the Mediterranean Sea. The Suez Canal is currently the main route between these two bodies of water, but the Ben Gurion Canal would offer an alternative that is shorter and potentially faster.
- The proposed project is to cut a canal through the Israeli-controlled Negev Desert from the tip of the Gulf of Aqaba the eastern arm of the Red Sea that juts into Israel's southern tip and south-western Jordan to the Eastern Mediterranean coast. The canal would also potentially provide economic benefits to Israel, as it could become a hub for trade and transportation in the region.

Source: ForumIAS

#### 33. Correct option is (B)

- Statement 1 is incorrect. The IPRD is not an exclusive forum for India and its immediate neighbors. It is a multilateral dialogue involving many countries in the Indo-Pacific region. IPRD is an annual multilateral forum hosted by the Indian Navy. It brings together a diverse group of countries from the Indo-Pacific region to discuss and collaborate on maritime security challenges.
- It was first held in 2018 and aims to bring together maritime stakeholders from the Indo-Pacific region to discuss common security challenges and opportunities.
- Statements 2 and 3 are correct. The IPRD is attended by a wide range of countries from the Indo-Pacific region. Some of the key participants include: India, Japan, Australia, and the United States (the QUAD countries), Indonesia, Malaysia, Singapore, and Thailand (the ASEAN countries), etc.
- The IPRD is an open forum, and new participants are welcome to join the dialogue each year. It also promotes mutual understanding and trust among maritime stakeholders, fostering a more secure and stable Indo-Pacific region.

Source: ForumIAS

#### **Economy**

# 34. Correct option is (D)

• The Centre for Advanced Financial Research and Learning (CAFRAL) is an independent body set up by the Reserve Bank of India (RBI) in 2005. It is a non-profit research institution dedicated to promoting high-quality research and learning in banking and finance. CAFRAL is located in Mumbai. CAFRAL's primary goal is to advance research and learning in the fields of banking and finance. It strives to achieve this objective by conducting high-quality research, fostering collaboration among researchers, and providing training and education opportunities. It conducts research and provides insights into India's financial sector, including non-bank financial companies (NBFCs).



# 35. Correct option is (B)

• IBC emphasizes maximizing the value of the assets of the insolvent entity for the benefit of all stakeholders, including creditors, employees, and shareholders. The IBC's primary objective is to maximize the value of the assets of the insolvent entity for the benefit of all stakeholders, including creditors, employees, and shareholders. The IBC recognizes that a successful resolution process can result in a better outcome for all involved, rather than a liquidation, which could result in the loss of jobs and a lower recovery for creditors.

Source: ForumIAS

## 36. Correct option is (D)

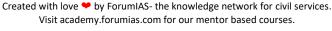
- Statements 1, 2 and 3 are incorrect. Surety bonds are not a type of investment that guarantees high returns, nor do they provide a way to make money when the principal defaults. Surety bonds are also not primarily used by individuals to secure personal loans and mortgages.
- Instead, surety bonds are a legally binding contract between three parties: the principal, the obligee, and the surety. The surety bond is a promise by the surety to be liable for the debt, default, or failure of another party.
- The purpose of a surety bond is to guarantee that the principal will fulfill its contractual obligations and comply with relevant laws and regulations. The surety bond does not protect the bondholder from liability if claims are filed.

Source: ForumIAS

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

- Statements 1, 2 and 3 are incorrect. Purchasing Sovereign Green Bonds does not typically exempt investors from paying taxes on their other investments. Tax treatment of investments can vary by country and region, but buying Sovereign Green Bonds does not automatically lead to tax exemptions on unrelated investments.
- Investing in Sovereign Green Bonds does not guarantee a financial return equal to the value of carbon emissions reduced by the issuing government. The return on Sovereign Green Bonds is typically based on fixed interest rates or other predetermined criteria, not directly tied to emissions reduction.
- Investing in Sovereign Green Bonds does not directly contribute to reducing a country's national debt. These bonds are issued to raise funds for environmentally sustainable projects and are a form of government borrowing, which may add to the national debt rather than reduce it.
- Sovereign Green bonds are fixed interest-bearing financial instruments issued by any sovereign entity/inter-governmental organization/corporation. The proceeds of these bonds are used only for environmentally conscious, climate-resilient projects.

Further, if a government wants to go global to raise funds, it needs to improve its credit rating as all bonds issued globally are closely linked to the credit rating of the issuing country.





#### **Environment**

#### 38. Correct option is (B)

- Statements 1 and 2 are correct. Pusa-44 is a high-yielding variety of long-duration paddy (rice) developed by the Indian Agricultural Research Institute (IARI) in 1993. It is a popular choice among farmers in India, particularly in the northern states of Punjab and Haryana, due to its high yield potential and resistance to pests and diseases.
- Pusa-44 is relatively resistant to various pests and diseases that commonly affect paddy crops, such as brown spot, blast, and gall midge. This reduces the need for pesticides and contributes to higher yields.
- Pusa-44 can thrive in a range of soil conditions, including saline and alkaline soils, making it a
  versatile variety suitable for cultivation in different regions.
- It is a long-duration variety that takes 155-160 days to mature leaving less window period for field preparation to sow the next crop.
- The long duration of Pusa-44 often leads to stubble burning, leading to air pollution and environmental concerns.

Source: ForumIAS

# 39. Correct option is (C)

- Statements 1 and 2 are incorrect. Pumped storage is a type of hydropower energy storage system used for grid energy storage. It is a form of clean energy storage that is ideal for electricity grids reliant on solar and wind power. This technology absorbs surplus energy at times of low demand and releases it when demand is high.
- PSPs do not utilize underground batteries for energy storage. They store energy by pumping water from a lower reservoir to a higher reservoir. PSPs are not well-suited for all types of geographic locations. They require specific geographical features, such as two interconnected bodies of water with significant elevation difference.
- Statements 3 and 4 are correct. PSPs provide a reliable and rapid response to changes in electricity demand, generating power during peak periods to help in grid stability. PSPs are fundamentally energy storage projects designed to cater to the need for grid stability during peak hours. They offer a reliable and rapid response to changes in electricity demand, generating power during peak periods to assist in grid stability.
- PSPs power plants can be designed to manage water resources effectively, ensuring responsible use and minimizing environmental impact.

Source: ForumIAS

#### 40. Correct option is (B)

- Statement 1 is incorrect. The 42nd Amendment Act, 1976, shifted Forests from the State to the Concurrent List, allowing both state and central legislation. The Forest Conservation Amendment Act of 2023 has redefined the term forest but not defined it for the first time.
- Statement 2 is correct. Under the Indian Forest (IF) Act of 1927, State Forest Departments oversee two primary types of forests: Reserve Forests (RF), where rights are restricted unless specified, and Protected Forests (PF), where rights are generally allowed unless prohibited.



# 41. Correct option is (A)

- Carbon dioxide (CO2) and methane (CH4) are classified as greenhouse gases and are also responsible for causing air pollution. Whereas, sulfur dioxide (SO2), nitrogen dioxide (NO2), and carbon monoxide (CO), are air pollutants but not greenhouse gases.
- Greenhouse gases are gases that trap heat in the Earth's atmosphere, contributing to global warming. CO2 is the primary greenhouse gas, responsible for about 60% of global warming. It is primarily released from the burning of fossil fuels, such as coal, oil, and natural gas.
- CH4 is another potent greenhouse gas, with a global warming potential 25 times higher than CO2. It is primarily emitted from agricultural activities, such as livestock production and rice cultivation, and from the decomposition of waste in landfills.
- Moreover, air pollutants are substances in the air that can have adverse effects on human health and the environment. SO2, NO2, and CO are all air pollutants that can cause respiratory problems and other health problems.

**Source: ForumIAS** 

# 42. Correct option is (A)

Only the National Mission for Sustaining the Himalayan Ecosystem (NMSHE) has a direct and
exclusive focus on the restoration and preservation of the Himalayan ecosystem. While the
other two missions, the National Action Plan on Climate Change (NAPCC) and the National
Mission on Sustainable Habitat (NMSH), include components aimed at environmental
protection and the promotion of sustainable practices, their scope extends beyond the
Himalayan region.

**Source: ForumIAS** 

# Science & Technology

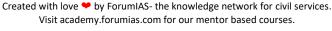
#### 43. Correct option is (C)

- Geomagnetic storms are caused by coronal mass ejections (CMEs), which are large clouds of plasma that are ejected from the Sun. When a CME reaches Earth, it can interact with the Earth's magnetic field, triggering a geomagnetic storm. Geomagnetic storms can range in intensity from minor to severe.
- A Geomagnetic storm can cause: Communication problems, Navigation issues, Satellite damage, Auroras, among others.

Source: ForumIAS

#### 44. Correct option is (A)

- The 'loop quantum gravity' and "bounce-out theory" are used in the context of white holes.
- Loop quantum gravity is a theory that attempts to reconcile quantum mechanics with general relativity. It proposes that space and time are not continuous, but instead are made up of tiny loops or knots. This theory suggests that the universe began in a state of infinitely small size and density, and then bounced back in a Big Bang.
- The bounce-out theory is a hypothesis that suggests that the universe will not end in a Big Crunch, but instead will continue to expand forever. This theory is based on the idea that the





universe is made up of dark energy, a mysterious force that is causing the universe to expand at an accelerating rate.

- White Hole is the reverse of Black Hole. Black hole is a region from which nothing, not even light, can escape due to the overwhelming gravitational pull.
- On the other hand, white hole is envisioned as a region into which nothing can fall. Instead of
  matter and energy being pulled inward, a white hole would expel matter and light, but nothing
  could enter it.

Source: ForumIAS

## 45. Correct option is (C)

- Statements 1 and 2 are correct. The Sukhoi Su-30MKI is a twin-engine, multi-role fighter jet. Developed by Russia's Sukhoi and India's HAL, it's used by the Indian Air Force.
- Key features include thrust vectoring for enhanced maneuverability and a range of up to 3,000 km. It's equipped with advanced avionics, radar, and can carry a variety of weapons. Introduced in 2002, it remains a cornerstone of India's air defense.
- It is a highly maneuverable aircraft, and it is capable of performing a wide range of air-to-air and air-to-surface missions.
- The Su-30MKI has been in service with the Indian Air Force since 2002 and has since become a key component of India's air defense. Recently, India is trying to upgrade the jet in line with the global practices or demand.

Source: ForumIAS

#### 46. Correct option is (C)

- Statements 1 and 3 are correct. Algae are photosynthetic, i.e., they use sunlight to convert carbon dioxide and water into energy and oxygen. Algae lack the specialized tissues and organs that characterize land plants, such as roots, stems, and leaves. This is why they are not considered to be true plants. They are found both in freshwater and saltwater environments. Algae have a wider variety of photosynthetic pigments than land plants. This allows them to absorb sunlight in a wider range of wavelengths, which helps them to survive in different environments. Algae have a wide variety of life cycles. Some algae are simple and reproduce asexually, while others are more complex and reproduce sexually.
- Recently, P. salinarum (one of the smallest green algae) has been found in hypersaline soda lake Sambhar, Rajasthan. It can survive extreme environments.
- Statement 2 is incorrect. Algae are eukaryotic organisms, meaning that their cells have a nucleus and other membrane-bound organelles. This distinguishes them from prokaryotic organisms, such as bacteria, which have a simpler cellular structure.

Source: ForumIAS

# 47. Correct option is (B)

• Statements 1 and 2 are correct. An electric battery is a device that stores electrical energy in the form of chemical energy and releases it as electrical power when needed.





- American scientist and inventor Benjamin Franklin first used the term "battery" in 1749 when he was doing experiments with electricity using a set of linked capacitors. However, the first true battery was invented by the Italian physicist Alessandro Volta in 1800.
- Electric battery consists of one or more electrochemical cells, each composed of two electrodes (anode and cathode) separated by an electrolyte.
- During discharge, a chemical reaction within the battery allows electrons to flow from the anode to the cathode through an external circuit, creating an electric current. This process converts chemical energy into electrical energy.
- Factors such as moisture, humidity, and the presence of certain chemicals can contribute to corrosion in the battery.
- Statements 3 and 4 are incorrect. Perpetual energy suggests the creation of a system that can operate indefinitely without the need for an external energy source or without losing energy due to friction or other factors. In other words, it's a device that can provide continuous energy output without ever stopping or slowing down.
- However, in real world application a battery cannot be perpetual source of energy.
- Lithium-ion batteries are used in smartphones, laptops, digital cameras, electric vehicles, portable electronic devices. Lead Acid Batteries are used in automotive starting batteries, backup power systems, UPS. Nickel-Cadmium (NiCd) Batteries are used in Portable power tools, medical equipment, and emergency lighting.

Source: ForumIAS

# 48. Correct option is (C)

Exercise BONGOSAGAR is an annual bilateral naval exercise between India and Bangladesh. The exercise is aimed at developing interoperability and joint operational skills through the conduct of a wide spectrum of maritime exercises and operations between the two navies. Exercise SAMPRITI is another annual joint military exercise between India and Bangladesh.

**Source: ForumIAS** 

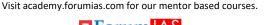
# 49. Correct option is (C)

- Saturn's rings are not actually disappearing, but rather they become temporarily invisible from Earth every 17.5 years due to a phenomenon called ring plane crossing. This occurs when Saturn's rings align edge-on with Earth, making them too thin to be seen through telescopes.
- The planet's enormous ring system, composed of bits of ice, dust and rocks, spreads out over a huge distance. Saturn's rings will become almost invisible from Earth in 2025 due to the edge-on perspective from our viewpoint.

Source: ForumIAS

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

- Statements 1, 2 and 4 are correct. Force-carriers are the particles that "carry" forces between other particles. Examples include photons (which carry the electromagnetic force), gluons (which carry the strong nuclear force), and W and Z bosons (which carry the weak nuclear force).
- Force causes objects to accelerate, which means their velocity (speed and direction) changes.





Created with love ♥ by ForumIAS- the knowledge network for civil services.

- Weak force is responsible for certain types of radioactive decay, like beta decay and neutrino emission. Weak force is one of the four fundamental forces in nature, along with the strong force, the electromagnetic force, and gravity.
- Statement 3 is incorrect. While a stronger force can cause an object to accelerate more law of motion provides the relationship: force equals mass times acceleration.

rapidly, the actual speed depends on both the force and the object's mass. Newton's second Source: ForumIAS

