

# **10 PM Current Affairs Quiz Weekly Compilation**

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*For UPSC CSE Prelims*

**[1<sup>st</sup> Week] May, 2024**

## 10 PM Compilation May [First Week] 2024

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## Ancient India

**Q.1) With reference to the pre-Mauryan period, consider the following statements:**

1. Societies during the pre-Mauryan period were involved in significant ritualistic or religious activity.
2. Trading, during the pre-Mauryan period, was not extensively practiced.

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

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

## Geography

**Q.2) Which one of the following countries borders Rwanda to the west?**

- a) Kenya
- b) Uganda
- c) Democratic Republic of the Congo
- d) Tanzania

**Q.3) Consider the following pairs:**

**Lakes-----Location**

1. Chilika Lake-----Odisha
2. Pulicat Lake-----Himachal Pradesh
3. Kaliveli Lake-----Kerala
4. Vembanad Lake-----Tamil Nadu

**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.4) Mount Fuji is a:**

- a) Shield volcano
- b) Composite volcano
- c) Caldera
- d) Mid-ocean ridge volcano

**Q.5) Swell waves, also known as groundswell, are waves that are generated by distant weather systems in oceans. In this context, which one of the following statements is correct regarding the swell waves?**

- a) These waves are created by local wind force.
- b) They have long wavelengths and travel long distances.
- c) These waves break as soon as they enter shallow water.
- d) They create irregular wave patterns.

**Q.6) With reference to the country Sudan, which of the following statement(s) is/are correct?**

1. It is a landlocked country.
2. It is the largest African country in terms of area.
3. It borders the Egypt to the north.

**Select the correct answer using the codes given below:**

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

**Q.7) Which one of the following is most commonly termed as 'white gold'?**

- a) Milk
- b) Cotton
- c) Salt
- d) Silver

**Q.8) Consider the following statements:**

1. Almost 90% of forest fires are man-made.
2. Uttarakhand forests are mainly composed of Chir Pine trees, which are highly flammable.

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

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

**Q.9) Consider the following statements:**

1. The National Disaster Management Agency (NDMA) collaborates with the India Meteorological Department (IMD) to issue heatwave warnings and coordinate disaster response.
2. Total temperature maps, used to depict heatwaves, depicts the departure from the average temperature for a specific location and time period.

**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

## Polity

**Q.10) Consider the following statements:**

1. Right to strike is a fundamental right of employees in India.
2. The Industrial Relations Code (CIR) of 2020 has introduced harsh penalties for illegal strikes.
3. India is not a signatory to the Labour Statistics Convention of 1985.

**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.11) Consider the following pairs:**

**Articles-----Objectives**

1. Article 31A-----Provides primacy to the Directive Principles of State Policy (DPSP) under Articles 39(b) and (c).
2. Article 31B----- Validates certain laws included in the Ninth Schedule, protecting them from judicial review.
3. Article 31C----- Allows the state to acquire estates for land reform and other public purposes without violating fundamental rights.

**How many of the above pairs are correctly matched?**

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

**Q.12) In which one of the following cases did the Supreme Court rule that the Constitution needs a harmonic balance of fundamental rights and Directive Principles of State Policy (DPSP)?**

- a) Golak Nath Case
- b) Kesavananda Bharati Case
- c) Minerva Mills Case
- d) Coelho case

**Q.13) The current legal status of cannabis cultivation, possession, and use for recreational purposes in India is:**

- a) Legal and regulated
- b) Decriminalized
- c) Illegal
- d) Permitted with a medical prescription in all states

**Q.14) Consider the following statements regarding Symbol Loading Unit (SLU) in Electronic Voting Machines (EVM):**

1. The SLU is only used to upload the symbols of candidates contesting a particular seat onto the Voter Verified Paper Audit Trail (VVPAT).
2. Optical Scanner is one of the components of the EVM system where SLUs are used.
3. As per a recent Supreme Court order, SLUs must be sealed and stored in a container, kept in a strongroom with EVMs, for at least 45 days after the declaration of election results.

**How many of the statements given above are correct?**

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

**Q.15) With reference to the Spice Board of India, consider the following statements:**

1. It is a regulatory and export promotion agency for Indian spices.
2. It sets minimum retail prices for spices sold in India.
3. Spice Train is an online campaign started by the Spice Board of India to educate Indians about the country's rich spice heritage.

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

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

**Q.16) The 'Rule of Law' is important to make sure everyone follows the rules set by laws. Based on this context, which one of the following best describes the Rule of Law?**

- a) The government has the power to modify laws without judicial review.
- b) The armed forces or ruler can implement laws without legal rationale.
- c) The idea that a country should be ruled by the law rather than by the choices made by certain political representatives.
- d) The practice of enforcing laws differently depending on a person's social rank.

**Q.17) Consider the following statements:**

- 1. Section 123 of the Representation of the People (RP) Act considers the issuing of freebies as a corrupt practice.
- 2. The Model Code of Conduct (MCC) prohibits parties and candidates from appealing to caste, religion, or ethnic feelings in order to get votes.

**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.18) Consider the following statements:**

- 1. The online gaming industry in India has experienced a significant growth in recent years.
- 2. The IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, provide regulations for the online gaming industry.

**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.19) In India, the 'Sarna Code' refers to the religious and cultural practices of indigenous tribal communities that worship nature. Which one of the following constitutional provisions supports the recognition of Sarna as a separate religion?**

- a) Article 15
- b) Article 25
- c) The Preamble
- d) Article 29

**Q.20) Consider the following statements:**

- 1. Health is officially defined by the World Health Organization as free from disease or infirmity.
- 2. India has no law covering end-of-life care.
- 3. The Supreme Court has interpreted 'Right to die with dignity' as a fundamental right under the Article 21 of the Indian Constitution.

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

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

**Q.21) Consider the following statements:**

1. In order to ensure equality of status and opportunity, the Indian Constitution calls on the government to address disparities arising from birth.
2. High inequality is linked to political polarization and increased societal conflict.
3. An inheritance tax is imposed every year with a focus on annual income from wages.

**How many of the statements given above are correct?**

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

## Acts & Policies

**Q.22) Which of the following statements is/are correct?**

1. The PM SVANidhi scheme provides subsidized housing loans to street vendors.
2. The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014, aims to protect and regulate street vending, focusing on both the livelihoods of vendors and the regulation of vending activities in cities.

**Select the correct answer using the code given below:**

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

**Q.23) With reference to the Open Market Sale Scheme (OMSS), consider the following statements:**

1. The scheme aims to sell surplus stocks of food grains, primarily wheat and rice, from the central pool in the open market at predetermined prices.
2. Department of Agriculture and Farmers' Welfare is responsible for conducting the OMSS.
3. The OMSS sales are conducted through e-auctions on a designated platform.

**Which of the statements given above are correct?**

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

**Q.24) With reference to the Protection of Children from Sexual Offences (POCSO) Act 2012, consider the following statements:**

1. It provides a legal framework for the protection of children from sexual offences.
2. Right to confront the accused is a right guaranteed to a child victim under the POCSO Act.
3. Under the Act, any person below the age of 18 is considered a child.

**How many of the statements given above are correct?**

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

**Q.25) Which one of the following was the first state to introduce menstrual leave for women?**

- a) Kerala
- b) Tamil Nadu
- c) Bihar
- d) Maharashtra

**Q.26) With reference to the Pradhan Mantri Jan Arogya Yojana (PMJAY), consider the following statements:**

1. The scheme aims to provide health insurance coverage to the economically weaker sections of society, ensuring access to quality healthcare services.
2. Preventive health checkups and vaccinations are covered under PMJAY.
3. There are no caps on family size, age, or the number of members in a family.
4. It aligns with the Sustainable Development Goals (SDGs) by promoting good health and well-being.

**How many of the statements given above are correct?**

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

**Q.27) Consider the following statements:**

1. The Jandhan, Aadhaar & Mobile (JAM) framework aims to enhance national security and citizen identification.
2. The PM SVANidhi Yojana is a scheme launched by the government to extend collateral-free working capital loans to street vendors.

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

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

**Q.28) Consider the following statements:**

**Statement-I:** India has established a comprehensive policy on palliative care.

**Statement-II:** The National Health Mission (NHM) includes palliative as one of its objectives.

**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.29) Consider the following statements regarding Bar Council of India's (BCI) Rules for Registration and Regulation of Foreign Lawyers and Foreign Law Firms in India, 2022:**

1. Under the BCI Rules, foreign lawyers are allowed to appear before Indian courts, tribunals, or statutory authorities.
2. Under the BCI Rules, foreign lawyers and firms can engage in transactional or corporate work such as joint ventures, mergers and acquisitions, and intellectual property matters on a reciprocal basis.

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

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



## Index & Reports

**Q.30) With reference to the World Press Freedom Index-2024, which of the following statement(s) is/are correct?**

1. The index is published by Reporters Without Borders (RSF).
2. The ranking of India in the index has dropped compared to the previous year.
3. Norway and Denmark topped the RSF index.

**Select the correct answer using the codes given below:**

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

**Q.31) Consider the following statements with reference to the recently released World Press Freedom Index-2024:**

1. Among the BRICS countries, China and Russia have greater press freedom, while Brazil and South Africa are ranked lower.
2. Among the South Asian countries, India is ranked lower than all other countries, except Bangladesh.

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

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

## International Relations/Organizations

**Q.32) Which one of the following is a key component of the "AUKUS agreement"?**

- a) Development of a joint space exploration program
- b) Provision of nuclear-powered submarines to Australia
- c) Establishment of a free travel zone between the three countries
- d) Creation of a unified currency

**Q.33) Consider the following statements:**

**Statement-I:** Despite its global rise, India's influence in South Asia has declined.

**Statement-II:** The majority of the South Asian nations are now subject to more sanctions from the US.

**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.34) Which one of the following best describes the nature of Blue Corner Notice issued by the Interpol?**

- a) Member countries are obligated to arrest the individual once a Blue Corner Notice is issued.
- b) Interpol can directly arrest individuals identified in a Blue Corner Notice.
- c) The issuance of a Blue Corner Notice allows for the immediate extradition of the individual.
- d) Interpol's notices, including Blue Corner Notices, are discretionary, and member countries cannot be compelled to act upon them.

## Economy

**Q.35) Consider the following funds:**

1. Hedge Funds
2. Gold Funds
3. Equity Funds

**How many of the above funds are managed by the Asset Management Companies (AMCs)?**

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

**Q.36) In economics, the term "economic pie" generally refers to:**

- a) The proportion of national income allocated to each industry.
- b) The total amount of resources and wealth available in an economy.
- c) The number of economic policies a government can implement.
- d) The division of economic resources between government and private sector.

**Q.37) Consider the following statements:**

1. In 2023, India's share in global goods export rose more than its share in global services exports.
2. The growth in services exports in India have acted as a buffer against external shocks such as high oil prices.

**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.38) Consider the following statements:**

**Statement-I:** India's steel exports to the European Union have increased significantly in FY24.

**Statement-II:** Indian steel prices were lower compared to global prices.

**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) Consider the following statements:**

1. India is the world's largest importer of vegetable oils.
2. Singapore is the largest exporter of palm oil to India.

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

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

**Q.40) The Reserve Bank of India (RBI) may choose to repurchase Government Securities (G-Secs) from the open market to:**

- a) Increase liquidity and encourage lending in the economy
- b) Reduce inflation by tightening the money supply
- c) Increase the government's borrowing costs
- d) Reduce the level of government debt

**Q.41) Which one of the following best defines a Standalone Primary Dealer (SPD) in the Indian government securities market?**

- a) A financial institution that operates as part of a commercial bank and deals exclusively with government securities.
- b) A financial intermediary authorized by the Reserve Bank of India to buy and sell government securities without being part of a banking institution.
- c) A subsidiary of foreign banks operating under the guidelines of the Reserve Bank of India to deal in equity markets.
- d) A government agency responsible for the regulation and supervision of the securities market.

**Q.42) Consider the following statements:**

- 1. Participatory Notes (P-Notes) are debt instruments issued by the Indian government to raise funds domestically.
- 2. The Securities and Exchange Board of India (SEBI) oversees the issuance and regulation of P-Notes in India.
- 3. P-Notes can make it difficult to track the true ownership of foreign investments in the Indian stock market.
- 4. P-Notes can be a source of foreign capital for Indian companies, leading to economic growth.

**How many of the statements given above are correct?**

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

**Q.43) Which one of the following is correct regarding a high tax buoyancy?**

- a) Tax revenue increases at the same rate as GDP.
- b) Tax revenue decreases while GDP increases.
- c) Tax revenue increases at a higher rate than GDP.
- d) Tax revenue remains constant despite GDP growth.

**Q.44) Consider the following statements:**

- 1. Countries holding rupee accounts can invest in Indian government securities and treasury bills.
- 2. Vostro account is a type of account held by a government in a domestic bank.

**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

## Environment

**Q.45) Consider the following statements:**

1. Methane is the second most abundant anthropogenic greenhouse gas.
2. The warming potential of methane is significantly lower than that of carbon dioxide (CO<sub>2</sub>).
3. Thermogenic methane originates from microbial activity, while biogenic methane is released during the extraction of fossil fuels.
4. Methanogens are single-celled archaea that produce methane in oxygen-deficient environments like wetlands, rice paddies, landfills, and the digestive tracts of animals.

**How many of the statements given above are correct?**

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

**Q.46) Consider the following:**

1. Coral Bleaching
2. Increase in the frequency of cyclones
3. Drought in India

**Which of the above will be the consequences of warming Indian Ocean?**

- 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. Global warming will lead to colder weather and more snow.
2. Climate change can increase the prevalence of vector-borne diseases.

**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.48) Consider the following statements:**

1. The Sustainable Development Goals (SDGs) are a set of interconnected global objectives established by the United Nations in 2015.
2. The SDGs are binding on all countries and must be met by 2030.
3. SDG-5 focuses on clean water and sanitation.

**How many of the statements given above are correct?**

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

**Q.49) Which one of the following is capable of using a plant to treat its wound?**

- a) Lion
- b) Orangutan
- c) Butterfly
- d) Jelly fish

**Q.50) Consider the following statements:**

1. Air Quality Index (AQI) provides a color-coded system to indicate air quality health risks.
2. Air Quality Early Warning System (AQEWS) provides advanced warnings of potential air quality deterioration.
3. Commission for Air Quality Management (CAQM) was established under the Environment Protection Act, 1986.
4. The Graded Response Action Plan (GRAP) is aimed at providing financial assistance to industries for adopting cleaner technologies.

**How many of the statements given above are correct?**

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

**Q.51) Consider the following:**

1. Deforestation
2. Fragmented Forests
3. Climate Change
4. Solar Flares

**How many of the above factors are responsible for forest fires?**

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

**Q.52) Which one of the following statements best defines the term 'Carbon Farming'?**

- a) It involves the intentional planting of high-carbon crops for the purpose of releasing carbon dioxide into the atmosphere to increase plant growth.
- b) It is a method of industrial carbon capture and storage to reduce atmospheric CO<sub>2</sub> levels.
- c) It is the practice of using agricultural methods to increase carbon sequestration in the soil, thereby enhancing soil health and mitigating climate change.
- d) It is the intensive use of heavy machinery and equipment on farms to capture carbon emissions and redistribute them across the land to improve soil quality.

**Q.53) Consider the following:**

1. Carbon offsets
2. Command-and-Control Regulations
3. Deforestation-free certification schemes
4. Community-based Management
5. Payment for Ecosystem Services (PES)
6. Reducing Emissions from Deforestation and Forest Degradation (REDD)

**Which of the above are considered as market-based approaches to forest conservation?**

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

**Q.54) Consider the following statements:**

1. Brazil, China, India, and the U.S. account for 60% of the world's plastic waste.
2. Plastic Waste Management Amendment Rules (2021), implemented by India, do not cover plastic bottles and multi-layered packaging such as milk cartons.

**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

## Science & Technology

**Q.55) With reference to the Expanded Programme on Immunization (EPI), how many of the following statements are correct?**

1. It was launched by the World Health Organization (WHO).
2. The launch of EPI has helped in eradicating measles globally.
3. On the lines of EPI, India also launched its indigenous immunization programme known as Universal Immunization Programme (UIP).
4. Herd immunity contribute to the success of EPI programs by protecting individuals who are unable to receive vaccinations.

**Select the correct answer using the codes given below:**

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

**Q.56) Consider the following statements:**

1. Defence Research and Development Organisation (DRDO) has designed a two-tier Ballistic Missile Defence (BMD) system to track and destroy nuclear and other ballistic missiles both inside and outside the Earth's atmosphere.
2. India is also developing its own long-range surface-to-air missile (LRSAM) system under Project Kusha.

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

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

**Q.57) Consider the following:**

1. Production of rocket fuel
2. Cooling equipment
3. Construction of buildings

**How many of the above are the use of water ice if found in substantial amounts on the moon?**

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

**Q.58) Consider the following statements:**

1. The moon orbits the Earth roughly once a month.
2. Antares is the brightest star in the constellation of Scorpius.
3. The term "occultation" in astronomy describes the increase in light wavelength emitted by an object as it moves away from the viewer.

**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.59) Consider the following statements:**

1. Quarks are fundamental particles that make up protons and neutrons.
2. Quarks have the capability to exist independently.

**Select the correct answer using the codes given below:**

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

**Q.60) Certain techniques are used in food processing and preservation to ensure that food is frozen quickly while retaining its quality. Which one of the following is the most often utilized material for quick freezing in food processing?**

- a) Liquid nitrogen
- b) Liquid oxygen
- c) Liquid carbon dioxide
- d) Liquid helium

**Q.61) Which one of the following is the primary purpose of Standard Essential Patents (SEPs) in the technology industry?**

- a) Increase the cost of technological products
- b) Protect the intellectual property of minor technological components
- c) Ensure interoperability and standardization across different technological platforms
- d) Restrict the entry of new competitors into the market

**Q.62) Consider the following:**

1. Medical Equipment Sterilization
2. Food Industry
3. Agriculture
4. Household Electrical Appliances

**In how many of the above areas Ethylene oxide is used?**

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

**Q.63) Which one of the following is the primary affected in Thrombocytopenia Thrombosis Syndrome (TTS)?**

- a) Red blood cells
- b) Platelets
- c) Muscle cells
- d) Nerve cells

**Q.64) Which one of the following nutrients is NOT classified under the primary nutrients in balanced fertilization?**

- a) Nitrogen (N)
- b) Phosphorus (P)
- c) Potassium (K)
- d) Zinc (Zn)

**Q.65) The term 'Far side of the Moon' was often seen in the news. It refers to -**

- a) The side of the Moon that is always illuminated by the Sun.
- b) The side of the Moon that never gets sunlight and is always dark.
- c) The area on the Moon where large impact craters are found.
- d) The side of the Moon that always faces away from Earth.

**Q.66) Project-75I aims to:**

- a) Develop new fighter jets for the Indian Air Force.
- b) Make new submarines for the Indian Navy.
- c) Upgrade existing warships of the Indian Navy.
- d) Attract foreign investment in India's defense sector.

**Q.67) Consider the following statements:**

1. Colorectal cancer (CRC) is one of the common types of cancer found in India.
2. Fusobacterium nucleatum is a bacterium commonly found in the human brain.
3. Fusobacterium nucleatum help cancer cells in CRC to escape the immune system and spread within the gut.

**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.68) Magnetic Resonance Imaging (MRI) is based on which one of the following principles?**

- a) The absorption of X-rays by different tissues in the body.
- b) The reflection of high-frequency sound waves from tissues.
- c) The alignment and realignment of nuclear spins in a magnetic field.
- d) The emission of gamma rays from decaying isotopes.

**Q.69) With reference to the West Nile Virus, consider the following statements:**

1. West Nile virus mainly infects birds.
2. Aedes genus of mosquitoes is responsible for the transmission of West Nile virus to the humans.
3. Around 80% of West Nile virus infections in humans are asymptomatic.
4. There is no human-to-human transmission of the virus.

**How many of the statements given above are correct?**

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

**Q.70) Which one of the following brain's regions is responsible for regulating body temperature and can be affected by schizophrenia and some antipsychotic medications?**

- a) Hypothalamus
- b) Hippocampus
- c) Amygdala
- d) Pituitary gland



## Answer Key

1 - (a)	2 - (c)	3 - (a)	4 - (b)	5 - (b)	6 - (b)	7 - (b)	8 - (c)	9 - (a)	10 - (b)
11 - (a)	12 - (c)	13 - (c)	14 - (a)	15 - (c)	16 - (c)	17 - (b)	18 - (c)	19 - (b)	20 - (b)
21 - (b)	22 - (b)	23 - (c)	24 - (b)	25 - (c)	26 - (c)	27 - (b)	28 - (d)	29 - (b)	30 - (b)
31 - (b)	32 - (b)	33 - (c)	34 - (d)	35 - (c)	36 - (b)	37 - (b)	38 - (a)	39 - (a)	40 - (a)
41 - (b)	42 - (c)	43 - (c)	44 - (a)	45 - (b)	46 - (d)	47 - (b)	48 - (a)	49 - (b)	50 - (b)
51 - (c)	52 - (c)	53 - (d)	54 - (c)	55 - (c)	56 - (c)	57 - (c)	58 - (a)	59 - (a)	60 - (a)
61 - (c)	62 - (c)	63 - (b)	64 - (d)	65 - (d)	66 - (b)	67 - (c)	68 - (c)	69 - (c)	70 - (a)

## Answers & Explanations

### Ancient India

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

- Statement 1 is correct. Societies during the pre-Mauryan period were involved in significant ritualistic or religious activity. The Vedic religion, which was prevalent during this period, was characterized by a complex system of rituals and sacrifices, indicating a high level of religious activity.
- Statement 2 is incorrect. Trading during the pre-Mauryan period was extensively practiced. Evidence suggests that there were well-established trade routes and economic activities prior to the Mauryan Empire. The existence of ancient Indian trade routes, including the Silk Road, facilitated significant trade interactions between India and other regions such as the Roman Empire and China.

Source: [The Times of India](#)

### Geography

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

- Rwanda, a landlocked country in East Africa, shares its western border with the Democratic Republic of the Congo. Other bordering countries include Uganda to the north, Tanzania to the east, and Burundi to the south. Rwanda's economy is based mostly on subsistence agriculture. Coffee and tea are the major cash crops in Rwanda to export. Recently, the U.K. government has announced a plan to send migrants with failed asylum claims to Rwanda.

Source: [The Hindu](#)

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

- Only 1 is correctly matched

## 10 PM Compilation May [First Week] 2024

- Pulicat Lake – It is the second largest brackish water lagoon in India. It is situated on the border of Andhra Pradesh and Tamil Nadu. It is known for its bird sanctuary, which attracts numerous species of migratory birds.
- Kailvelil Lake – It is located in Tamil Nadu and it is one of the significant brackish water bodies in the region. It is an important lake for migratory birds.
- Vembanad Lake – It is also known as Vembanad Kayal, Vembanad Kol, Punnamada Lake (in Kuttanad), and Kochi Lake (in Kochi), is a significant brackish water lagoon in Kerala, India. It is the largest lake in Kerala and the longest in India.

Source: [The Hindu](#)

### 4. Correct Answer is (B)

- Mount Fuji is a stratovolcano, also known as a composite volcano. Stratovolcanoes are characterized by their steep, conical shape and are formed by alternating layers of volcanic ash, lava, and rock debris. These volcanoes are often found in subduction zones, where one tectonic plate is pushed beneath another, leading to magma generation and subsequent eruptions. Mount Fuji, located on the Japanese island of Honshu, is an example of a stratovolcano.

Source: [The Hindu](#)

### 5. Correct Answer is (B)

- Swell waves are generated by distant weather systems, and they can travel across vast oceanic distances without being significantly affected by local winds or currents. They have long wavelengths and periods, which allow them to maintain their energy as they travel. Unlike wind waves, which come from local winds and are shorter, steeper, and less organized, swell waves have a longer time and wavelength, making them stronger and able to move far. They impact the erosion of the beach, the flora and fauna inhabiting the beach, and recreational activities such as surfing and boating.

Source: [The Hindu](#)

### 6. Correct Answer is (B)

- Statements 1 and 2 are incorrect. Sudan is not a landlocked country. It has a coastline along the Red Sea. Algeria is the largest African country in terms of area, followed by the Democratic Republic of Congo and then Sudan.
- Statement 3 is correct. Sudan shares its northern border with the Egypt. The border stretches from the Red Sea in the east to the tripoint with Libya in the west.

Source: [The Hindu](#)

### 7. Correct Answer is (B)

- Cotton is often referred to as "white gold" because of its economic value and the soft, white fibers it produces, which resemble the precious metal gold in terms of significance. The phrase highlights the importance of cotton as a valuable commodity and its role in generating income for farmers and contributing to the economy.

Source: [The Hindu](#)

### 8. Correct Answer is (C)

- Statements 1 and 2 are correct. Almost 90% of forest fires are man-made. The majority of these fires are initiated by human activities such as agricultural burning, careless disposal of cigarettes, and intentional arson. These practices are often traditional or due to negligence, significantly contributing to the high incidence of forest fires. The forests of Uttarakhand are largely dominated by Chir Pine trees, which are known for their high flammability. The needles and twigs of Chir Pine have a high resin content, making them extremely combustible. This characteristic makes the

forests particularly vulnerable to fires, especially during dry conditions when the fallen pine needles accumulate and serve as ready fuel for fires.

Source: [The Times of India](#)

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

- Statement 1 is correct. The National Disaster Management Agency (NDMA) collaborates with the India Meteorological Department (IMD) to issue heatwave warnings and coordinate disaster response in India. As the apex body responsible for disaster management, NDMA works with various government agencies to mitigate the impact of disasters, including heatwaves.
- Statement 2 is incorrect. Total temperature maps show the actual temperatures over a region, which can be misleading because they do not necessarily indicate anomalous or unusually high temperatures that characterize heatwaves. Instead, anomaly maps, which depict the departure from the average or expected temperature for a specific location and time period, are more accurate for identifying heatwaves. Anomaly maps highlight temperatures that are significantly higher than the norm, which is crucial for understanding and responding to heatwaves.

Source: [The Hindu](#)

**Polity**

**10. Correct Answer is (B)**

- Statement 1 is incorrect. The right to strike is not a fundamental right of laborers in India, but a statutory right under the Industrial Disputes Act (IDA) of 1947 (now subsumed under the Industrial Relations Code, 2020).
- Statements 2 and 3 are correct. The Industrial Relations Code (CIR) of 2020, which consolidates and updates several labor laws, includes provisions for harsher penalties for illegal strikes. The new legislation aims to improve the ease of doing business and enhance labor market flexibility while also protecting workers' rights. India has ratified the Labour Statistics Convention (No. 160) of 1985 and the Labour Inspection Convention (081) of 1947 under the International Labour Organization.

Source: [The Hindu](#)

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

- Only 2 is correctly matched.
- Article 31A- Provide that laws made for acquisition of estates, etc. shall not be void on the ground that it violated fundamental rights including the right to property.
- Article 31B-Made laws placed under the Ninth Schedule immune from the judicial review on the ground of violating fundamental rights. However, in Coelho case (2007), the SC held that laws placed in Ninth schedule after April 1973 would be subject to judicial review.
- Article 31C-Provided primacy to the DPSP under Article 30(b) and (c). Laws that made to fulfil these principles shall not be void on the ground that it violated fundamental rights including right to property.

Source: [The Hindu](#)

**12. Correct Answer is (C)**

- In the Minerva Mills Case (1980), the Supreme Court of India held that the Constitution requires a harmonious balance between Fundamental Rights and the Directive Principles of State Policy (DPSP). The court emphasized that both Fundamental Rights and DPSP are essential features of the Constitution and should be given equal importance.

Source: [The Hindu](#)

**13. Correct Answer is (C)**

## 10 PM Compilation May [First Week] 2024

- In India, the Narcotic Drugs and Psychotropic Substances Act (NDPS Act) of 1985 classifies cannabis as a prohibited substance. The act makes it illegal to cultivate, produce, possess, use, consume, purchase, sell, transport, warehouse, import, or export cannabis for recreational purposes. However, the cultivation of cannabis for industrial purposes, such as producing industrial hemp or for horticultural use, is legal in India.

Source: [The Times of India](#)

### 14. Correct Answer is (A)

- Statements 1 and 2 are incorrect. The SLU is used to upload both the names and symbols of candidates contesting a particular seat onto the Voter Verified Paper Audit Trail (VVPAT). The Optical Scanner is not a component of the EVM system where SLUs are used. The EVM system primarily consists of the Ballot Unit, Control Unit, and VVPAT.
- Statement 3 is correct. According to recent directives from the Supreme Court, after the completion of the symbol loading process, SLUs must be sealed and stored in a container and kept in a strongroom along with EVMs for at least 45 days following the declaration of election results. This measure is intended to ensure the integrity and security of the election process.

Source: [The Hindu](#)

### 15. Correct Answer is (C)

- Statements 1 and 3 are correct. The Spice Board of India is a regulatory and export promotion agency for Indian spices. It operates under the Ministry of Commerce and Industry and focuses on the development and worldwide promotion of Indian spices. Spice Train is an online campaign initiated by the Spice Board of India to educate Indians about the country's rich spice heritage and promote the use of spices in daily life. The campaign aims to create awareness and appreciation for the diverse range of spices that India has to offer.
- Statement 2 is incorrect. The Spice Board of India does not set minimum retail prices for spices sold in India. Retail prices are typically determined by market forces such as demand and supply, as well as other factors like production costs, transportation, and government policies.

Source: [The Hindu](#)

### 16. Correct Answer is (C)

- A country's supremacy of law is maintained through the Rule of Law. The principle states that all, including the government and its representatives are subject to and accountable under the same laws. In turn, this ensures justice, fairness, transparency, and equal protection for all while diminishing chances of arbitrary decision-making by those in authority as well as abuse of power.

Source: [The Hindu](#)

### 17. Correct Answer is (B)

- Statement 1 is incorrect. Section 123 of the Representation of the People (RP) Act stipulates several forms of corruption such as bribery, undue influence, communal appeals among others. However, giving out freebies is not specifically thought as corruption under the Act.
- Statement 2 is correct. The Model Code of Conduct (MCC) is a set of rules laid down by India's Election Commission to guide political parties and candidates during elections. One of the key aspects of these rules is that they ban politicians from using appeals to caste, religion, or ethnic identity to attract votes. This is done to ensure elections remain fair and impartial, keeping the focus on policies and governance rather than divisive tactics.

Source: [The Hindu](#)

### 18. Correct Answer is (C)

- Statements 1 and 2 are correct. The online gaming industry in India has witnessed substantial growth in recent years, driven by factors such as increasing internet penetration, affordable data

plans, and a growing interest in competitive gaming and esports. The IT (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021, have been updated to include specific provisions for the online gaming industry. These amendments introduce regulations concerning the operation of online games, including the establishment of self-regulatory bodies, obligations for online gaming platforms to ensure user safety, and compliance requirements for online real money games.

Source: [The Hindu](#)

**19. Correct Answer is (B)**

- Article 25 of the Indian Constitution guarantees the freedom of conscience and the right to profess, practice, and propagate religion. This constitutional provision supports the recognition of Sarna as a separate religion since it acknowledges the rights of individuals to follow their religious beliefs.

Source: [The Hindu](#)

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

- Statement 1 is incorrect. The World Health Organization (WHO) defines health as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.
- Statements 2 and 3 are correct. While there are guidelines and some legal provisions related to end-of-life care, India lacks a comprehensive law specifically covering end-of-life care. The existing guidelines and provisions are part of broader health policies or are derived from court rulings rather than standalone legislation. The Supreme Court of India has recognized the right to die with dignity as part of the right to life under Article 21 of the Constitution.

Source: [The Hindu](#)

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

- Statements 1 and 2 are correct. The Indian Constitution, particularly the Preamble and Part III (Fundamental Rights), emphasizes equality and prohibits discrimination based on various factors, including birth. Additionally, Directive Principles of State Policy (Part IV) encourage affirmative action to address social and economic inequalities. High levels of inequality can contribute to political polarization and increased societal conflict. Inequality can exacerbate tensions between different economic classes, leading to dissatisfaction and unrest. It can also create divisions along socio-economic lines that are often exploited by political parties for electoral gain.
- Statement 3 is incorrect. An inheritance tax, also known as an estate tax or death tax, is imposed on the net value of an individual's estate after their death and before the distribution of the assets to the beneficiaries. It is not imposed every year and does not focus on annual income from wages. Instead, it is a one-time tax levied on the inherited assets after an individual's demise. The primary purpose of an inheritance tax is to reduce wealth concentration across generations and promote economic equality.

Source: [The Hindu](#)

**Acts & Policies**

**22. Correct Answer is (B)**

- Statement 1 is incorrect. The PM SVANidhi scheme does not provide subsidized housing loans to street vendors. Instead, it is a micro-credit scheme that offers collateral-free working capital loans of up to ₹10,000 to street vendors to help them resume their livelihoods, which were adversely affected by the COVID-19 pandemic. The scheme aims to provide financial assistance to street vendors and support their economic recovery.
- Statement 2 is correct. The Street Vendors (Protection of Livelihood and Regulation of Street Vending) Act 2014 aims to protect and regulate street vending, focusing on both the livelihoods of vendors and the regulation of vending activities in cities. The Act provides for the protection of livelihood rights, social security, and the regulation of urban street vending. It also establishes

guidelines for the allocation of vending zones and the issuance of licenses and permits to street vendors.

Source: [The Hindu](#)

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

- Statements 1 and 3 are correct. The Open Market Sale Scheme (OMSS) aims to sell surplus stocks of food grains, primarily wheat and rice, from the central pool in the open market at predetermined prices. This is done to control prices in the market and ensure food security. The OMSS sales are conducted through e-auctions on a designated platform, such as the National Commodity and Derivatives Exchange Limited (NCDEX). This ensures transparency and efficiency in the auction process.
- Statement 2 is incorrect. The Food Corporation of India (FCI), under the Ministry of Consumer Affairs, Food & Public Distribution, is responsible for conducting the OMSS.

Source: [The Times of India](#)

**24. Correct Answer is (B)**

- Statements 1 and 3 are correct. The POCSO Act, 2012 is a law that aims to protect children from various forms of sexual abuse and exploitation, providing a robust legal framework for their protection. The POCSO Act defines a child as any person below the age of 18 years. It is applicable to both male and female children, ensuring protection from various forms of sexual offences and providing stringent penalties for offenders.
- Statement 2 is incorrect. The POCSO Act is designed to be child-friendly and ensures that the child victim is protected throughout the judicial process. The Act specifically provides that the child should not be exposed directly to the accused during testimony, often using methods such as video conferencing to record statements or using a screen to shield the child. This is to ensure the child's comfort and to prevent re-traumatization.

Source: [The Hindu](#)

**25. Correct Answer is (C)**

- Bihar was the first state in India to introduce menstrual leave in the early 1990s, under the leadership of then Chief Minister Lalu Prasad Yadav. The policy granted female employees two days of paid leave per month.

Source: [The Hindu](#)

**26. Correct Answer is (C)**

- Statements 1, 3 and 4 are correct. PMJAY, also known as Ayushman Bharat Yojana, is designed to provide health insurance coverage of up to ₹5 lakh per family per year for secondary and tertiary care hospitalization to over 50 crore beneficiaries from economically weaker sections. One of the key features of PMJAY is that there are no restrictions on family size, age, or the number of members in a family. All pre-existing conditions are covered from day one, and the scheme aims to be inclusive by covering all members of eligible families. PMJAY aligns with the Sustainable Development Goals, particularly Goal 3, which aims to ensure healthy lives and promote well-being for all at all ages.
- Statement 2 is incorrect. PMJAY primarily focuses on secondary and tertiary care hospitalization, covering a wide range of medical and surgical conditions. However, it does not cover preventive health checkups, vaccinations, or outpatient services. The scheme is designed to provide financial protection against catastrophic health expenditure due to hospitalization, rather than preventive care.

Source: [The Hindu](#)

**27. Correct Answer is (B)**

## 10 PM Compilation May [First Week] 2024

- Statement 1 is incorrect. The Jandhan, Aadhaar & Mobile (JAM) framework primarily aims to enhance financial inclusion by linking Jan Dhan accounts, Aadhaar numbers, and mobile numbers to streamline and secure the delivery of government subsidies and services directly to the beneficiaries, thereby reducing leakages and ensuring that benefits reach the intended recipients. It does not specifically aim to enhance national security and citizen identification.
- Statement 2 is correct. The PM SVANidhi Yojana (Pradhan Mantri Street Vendor's AtmaNirbhar Nidhi) is a scheme launched by the Indian government to provide collateral-free working capital loans to street vendors affected by the COVID-19 pandemic. This scheme aims to support street vendors in resuming their businesses by offering financial assistance and promoting digital transactions.

Source: [The Times of India](#)

### 28. Correct Answer is (D)

- Statement-I is incorrect. While there have been efforts and initiatives like the National Program for Palliative Care (NPPC) to improve palliative care, India lacks a comprehensive, fully implemented national policy specifically dedicated to palliative care. India has a limited palliative care policy and palliative care is not systematically incorporated into the healthcare system.
- Statement-II is correct. The National Health Mission, particularly through its components like the National Program for Palliative Care, aims to integrate palliative care into the broader health care framework. The NHM supports palliative care initiatives as part of its mission to provide comprehensive health services.

Source: [The Hindu](#)

### 29. Correct Answer is (B)

- Statement 1 is incorrect. The BCI Rules do not allow foreign lawyers to directly appear before Indian courts, tribunals, or statutory bodies. They can only practice in association with a registered Indian lawyer.
- Statement 2 is correct. The BCI Rules allow foreign lawyers and law firms to engage in transactional or corporate work such as joint ventures, mergers and acquisitions, and intellectual property matters on a reciprocal basis. This means that foreign lawyers and law firms can practice these areas of law in India only if their home countries allow Indian lawyers and law firms to do the same.

Source: [The Hindu](#)

## Index & Reports

### 30. Correct Answer is (B)

- Statements 1 and 3 are correct. Reporters Without Borders (RSF) is the organization that publishes the World Press Freedom Index annually. Norway and Denmark topped the RSF index, while Eritrea ranked at the bottom, with Syria just above it.
- Statement 2 is incorrect. India's rank improved slightly from 161 in 2023 to 159 in 2024. This was primarily due to other countries slipping in their rankings. However, India's score in the World Press Freedom Index fell from 36.62 to 31.28.

Source: [The Hindu](#)

### 31. Correct Answer is (B)

- Statement 1 is incorrect. According to the World Press Freedom Index 2024, Brazil and South Africa have higher press freedom rankings than China and Russia among the BRICS nations.
- Statement 2 is correct. Among South Asian countries, India is ranked lower than all other countries except Bangladesh.

Source: [The Hindu](#)

## International Relations/Organizations

### 32. Correct Answer is (B)

- AUKUS (Australia, the United Kingdom, and the United States) is a trilateral security partnership announced in 2021. The agreement aims to enhance security and defense cooperation among the three nations, with a focus on the Indo-Pacific region. A significant aspect of the agreement is the provision of nuclear-powered submarines to Australia, which would help strengthen its naval capabilities. The partnership also includes collaboration in other areas like cyber capabilities, artificial intelligence, quantum technologies, and undersea capabilities.

Source: [The Hindu](#)

### 33. Correct Answer is (C)

- Statement I is correct. India's influence in South Asia has faced challenges in recent years due to various factors, such as increasing Chinese involvement in the region, internal political issues within India, and the growing assertion of smaller South Asian countries.
- Statement II is incorrect. The majority of South Asian nations are not subject to more sanctions from the United States. As of now, only Iran and North Korea are under extensive sanctions from the US among the countries that can be considered part of the broader South Asia and neighboring regions.

Source: [The Hindu](#)

### 34. Correct Answer is (D)

- A Blue Corner Notice is issued by Interpol to collect additional information about a person's identity, location, or activities in relation to a crime. It is a request for cooperation and assistance from member countries in sharing relevant information about the person of interest. However, the notices themselves are not international arrest warrants, and Interpol cannot arrest individuals directly. Furthermore, member countries are not obligated to act upon these notices, as they are considered discretionary. Each country has its own laws and procedures to determine whether or not to arrest an individual based on the information provided in the notice.

Source: [The Hindu](#)

## Economy

### 35. Correct Answer is (C)

- All three funds are managed by the AMCs. AMCs are financial institutions that pool investment capital from various investors and manage those funds by investing in a variety of assets, including stocks, bonds, commodities, and real estate. Hedge funds, gold funds, and equity funds are all different types of investment offered by AMCs. The primary objective of AMCs is to generate profitable returns for their investors by managing their pooled investments effectively. These are regulated by SEBI.

Source: [The Hindu](#)

### 36. Correct Answer is (B)

- The "economic pie" is often used as a metaphor to represent the aggregate wealth or resources in a country or economy. The economic pie is a metaphor used to represent the total value of goods and services produced in an economy. In other words, it's the size of the whole economic "cake" to be divided.

Source: [The Hindu](#)

### 37. Correct Answer is (B)



## 10 PM Compilation May [First Week] 2024

- Statement 1 is incorrect. In 2023, India's share in global goods exports was 1.8%, and in global services exports, India's share rose to 4.6% from 2% in 2005, indicating a more significant increase in the share of global services exports than in goods exports.
- Statement 2 is correct. The growth in services exports in India has acted as a buffer against external shocks such as high oil prices. A strong services sector, particularly in IT-enabled services, has helped generate foreign exchange earnings, create jobs, and contribute to economic growth. This resilience in the services sector has provided some cushion against external factors like high oil prices, which can negatively impact the economy by increasing the cost of imports and widening the trade deficit.

Source: [The Hindu](#)

### 38. Correct Answer is (A)

- Statement-I: India's steel exports to Europe hit a five-year high in FY24, reaching 3.3 million tonnes (mt), marking a significant increase of 65% year-on-year.
- Statement-II: Indian steel manufacturers have been able to increase their exports to the European Union due to their competitive pricing in the global market. The lower steel prices in India can be attributed to factors such as lower input costs, efficient production processes, and government support. Other factors that increased the steel exports are demand fluctuations, re-stocking trends in the EU, and a weak dollar that influenced the Euro to U.S. dollar exchange rate.
- Note: While there has been increase in the steel exports to the EU, steel exports to the UAE and Southeast Asia have faced challenges from competition from China.

Source: [The Hindu](#)

### 39. Correct Answer is (A)

- Statement 1 is correct. India is the world's largest importer of vegetable oils. Compared to other vegetable oils like sunflower or soybean oil, palm oil is generally cheaper due to its high yield per hectare of land cultivated.
- Statement 2 is incorrect. Indonesia is the largest exporter of palm oil to India, followed by Malaysia, Thailand, Singapore, and Papua New Guinea.

Source: [The Hindu](#)

### 40. Correct Answer is (A)

- The Reserve Bank of India (RBI) conducts Open Market Operations (OMOs), which include the purchase of Government Securities (G-Secs) from the open market. This action is primarily aimed at managing the liquidity conditions in the market. When the RBI buys G-Secs, it injects liquidity into the market, which can encourage lending and economic activity by making more funds available to banks and other financial institutions.

Source: [The Times of India](#)

### 41. Correct Answer is (B)

- Standalone Primary Dealers (SPDs) are specialized entities that operate in the government securities market. They are authorized by the Reserve Bank of India (RBI) to buy and sell government securities, facilitate the government's borrowing program, and provide liquidity in the secondary market. SPDs operate independently and are not part of a commercial bank or any other financial institution. The Reserve Bank of India (RBI) has recently allowed standalone primary dealers (SPDs) to borrow in foreign currency from their parent companies and entities authorized by it. Standalone primary dealers will also be allowed to access overdraft facilities in nostro accounts solely for operational use.

Source: [Forum IAS](#)

### 42. Correct Answer is (C)

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## 10 PM Compilation May [First Week] 2024

- Statement 1 is incorrect. Participatory Notes (P-Notes) are not debt instruments issued by the Indian government to raise funds domestically. They are financial instruments used by foreign investors to invest in Indian securities without registering directly with SEBI.
- Statements 2, 3 and 4 are correct. SEBI is responsible for regulating and overseeing the issuance and trading of P-Notes in the Indian securities market. P-Notes allow investors to invest in Indian securities without registering with SEBI, it can be difficult to track the true ownership of foreign investments in the Indian stock market. This anonymity raises concerns about potential money laundering and round-tripping of funds. P-Notes allow foreign investors to invest in Indian securities, which can contribute to the inflow of foreign capital. This additional capital can help finance Indian companies' growth and development, thereby supporting the overall economic growth of the country.

Source: [The Times of India](#)

### 43. Correct Answer is (C)

- Tax buoyancy measures the responsiveness of tax revenue to changes in the Gross Domestic Product (GDP). High tax buoyancy occurs when tax revenue increases at a higher rate than GDP, indicating that the tax system is efficient and effective in capturing revenue from the growing economy.

Source: [The Times of India](#)

### 44. Correct Answer is (A)

- Statement 1 is correct. Countries with bilateral trade settlements in Indian rupees (INR) can invest in Indian government securities and treasury bills through their rupee accounts. The Reserve Bank of India (RBI) added this provision to the Foreign Exchange Management (Debt Instruments) Regulations in 2019. The funds used to purchase securities must come from the rupee account, and any sale or maturity proceeds are credited to the same account.
- Statement 2 is incorrect. A Vostro account is a type of account held by a domestic bank (in India) on behalf of a foreign bank. It is not held by a government. A Vostro account enables the foreign bank to provide services to its clients in the domestic bank's country. For example, a Vostro account held by an Indian bank on behalf of a foreign bank allows the foreign bank's clients to conduct transactions in India.

Source: [The Hindu](#)

## Environment

### 45. Correct Answer is (B)

- Statements 1 and 4 are correct. Methane (CH<sub>4</sub>) is the second most abundant human-caused (anthropogenic) greenhouse gas, following carbon dioxide (CO<sub>2</sub>). Methanogens are single-celled archaea that thrive in oxygen-limited environments. They break down organic matter and release methane as a byproduct. Wetlands, rice paddies, landfills, and animal digestive tracts are all common habitats for methanogens.
- Statements 2 and 3 are incorrect. The warming potential of methane is significantly higher than that of carbon dioxide. While it stays in the atmosphere for a shorter time, it traps much more heat while it's there. Thermogenic methane comes from the breakdown of buried organic matter under high pressure and temperature, over geological timescales. Biogenic methane, on the other hand, is produced by living organisms like methanogens or microbial activity.

Source: [The Hindu](#)

### 46. Correct Answer is (D)

- **Coral Bleaching:** Marine heatwaves, which are a result of the warming Indian Ocean, lead to coral bleaching.

## 10 PM Compilation May [First Week] 2024

- **Increase in the Frequency of Cyclones:** The warming of the Indian Ocean contributes to the rapid intensification of cyclones and an increase in their frequency.
- **Drought in India:** Warming Ocean temperatures can influence atmospheric circulation patterns, such as the Indian Ocean Dipole and El Niño events. These changes can disrupt monsoon patterns and rainfall distribution over India, potentially leading to droughts or uneven rainfall patterns that negatively impact agriculture and water resources.

Source: [The Hindu](#)

### 47. Correct Answer is (B)

- Statement 1 is incorrect. Global warming generally leads to warmer temperatures and can cause changes in precipitation patterns, leading to less snow in some areas.
- Statement 2 is correct. Climate change can impact the distribution and abundance of disease vectors, such as mosquitoes, ticks, and rodents. Warmer temperatures, altered precipitation patterns, and changing ecosystems can create more favorable conditions for these vectors, increasing the transmission of diseases like malaria, dengue fever, and Lyme disease.

Source: [The Hindu](#)

### 48. Correct Answer is (A)

- Statement 1 is correct. The Sustainable Development Goals (SDGs) are a set of 17 interconnected global objectives established by the United Nations in 2015. These goals aim to address various global challenges, including poverty, inequality, climate change, environmental degradation, and peace and justice.
- Statements 2 and 3 are incorrect. The SDGs are not legally binding on countries. They are voluntary and aspirational. Countries are expected to take ownership and establish national frameworks for achieving these goals by 2030, but they are not mandatory. SDG-5 focuses on achieving gender equality and empowering all women and girls.

Source: [The Hindu](#)

### 49. Correct Answer is (B)

- Orangutans have been observed using various plants for medicinal purposes, including the treatment of wounds. They have been seen applying chewed-up leaves or leaf-saliva mixtures on their wounds, helping to heal injuries or prevent infections. This behavior is considered a form of zoopharmacognosy, where non-human animals self-medicate by using plants or other substances to treat illnesses or injuries. Chimpanzees are also capable of using plants for medicinal purposes.

Source: [The Times of India](#)

### 50. Correct Answer is (B)

- Statements 1 and 2 are correct. The Air Quality Index (AQI) uses a color-coded system to indicate the health risks associated with air quality. This system measures air quality in relation to certain pollutants and the associated health risks at various levels, with each color representing a different level of health concern. The Air Quality Early Warning System (AQEWS) is designed to predict extreme air pollution events and provide warnings about potential air quality deterioration in advance.
- Statements 3 and 4 are incorrect. The Commission for Air Quality Management (CAQM) was established as a statutory body by the government in August 2021, under the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021. It was formed to carry out air quality management in Delhi NCR and has overarching powers in achieving its mandate, including the authority to take measures, issue directions, and entertain complaints for the purpose of protecting and improving the quality of air. The Graded Response Action Plan (GRAP) is an emergency response plan implemented in the National Capital Region (NCR) to tackle

severe air pollution. It outlines a set of measures to be taken based on the severity of air pollution levels, such as restrictions on industrial activities, construction, and transportation, among others.

Source: [The Times of India](#)

**51. Correct Answer is (C)**

- Deforestation: Deforestation can lead to the accumulation of dry vegetation on the forest floor, which can act as fuel for fires.
- Fragmented Forests: Forest fragmentation can increase the vulnerability of forests to fires by creating more exposed edges and reducing the resilience of the ecosystem.
- Climate Change: Climate change can lead to prolonged droughts, higher temperatures, and shifts in precipitation patterns, creating more favorable conditions for forest fires.
- However, Solar Flares are not directly responsible for forest fires. While solar flares can disrupt electronic communications and power grids, they do not have a direct impact on the ignition or spread of wildfires.

Source: [The Times of India](#)

**52. Correct Answer is (C)**

- Carbon farming refers to the implementation of various agricultural practices aimed at enhancing the sequestration of atmospheric carbon into the soil and plant tissues. This is achieved through methods such as conservation tillage, agroforestry, cover cropping, and crop rotation. These practices not only improve soil health and productivity but also contribute to climate change mitigation by reducing the amount of CO<sub>2</sub> in the atmosphere.

Source: [The Hindu](#)

**53. Correct Answer is (D)**

- Market-based approaches to forest conservation involve utilizing economic incentives and market mechanisms to promote sustainable forest management and reduce deforestation. Some of the market-based approaches are as follows: Carbon offsets, Deforestation-free certification schemes, Payment for Ecosystem Services (PES), Reducing Emissions from Deforestation and Forest Degradation (REDD). However, Command-and-control regulations and community-based management are not market-based approaches since they do not primarily rely on financial incentives or trade mechanisms to achieve forest conservation goals.

Source: [The Hindu](#)

**54. Correct Answer is (C)**

- Statements 1 and 2 are correct. Brazil, China, India, and the United States are among the largest contributors to plastic waste globally. Together, they account for around 60% of the total plastic waste generated worldwide. The Plastic Waste Management Amendment Rules (2021) implemented by India do not cover all types of plastic waste. While the rules ban certain single-use plastic items, they do not include plastic bottles (even those less than 200 ml) and multi-layered packaging boxes, such as milk cartons. The primary focus of the amendment is on banning specific single-use plastic items that have low utility and high littering potential.

Source: [The Hindu](#)

## Science & Technology

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

- Statements 1, 3 and 4 are correct. The Expanded Programme on Immunization (EPI) was launched by the World Health Organization (WHO) in 1974 to increase global vaccination coverage against six major preventable diseases (Diphtheria, Pertussis, Tetanus, Polio, Measles, Tuberculosis (TB)). However, now it has been expanded over 13 diseases. India launched its own indigenous

immunization program, the Universal Immunization Programme (UIP), in 1985, drawing inspiration from the EPI. The UIP aims to protect children and mothers against various preventable diseases by providing free vaccines. Herd immunity, achieved when a significant proportion of a population is vaccinated, plays a crucial role in the success of EPI programs.

- Statement 2 is incorrect. While EPI has been successful in increasing immunization coverage and significantly reducing the incidence of measles, the disease has not been eradicated globally. The only human infectious disease that has been successfully eradicated globally is smallpox.

Source: [The Hindu](#)

**56. Correct Answer is (C)**

- Statements 1 and 2 are correct. India's Defence Research and Development Organisation (DRDO) has indeed designed a two-tier Ballistic Missile Defence (BMD) system. This system is intended to track and destroy nuclear and other ballistic missiles both inside and outside the Earth's atmosphere. The two-tier system consists of the Prithvi Air Defence (PAD) missile for high-altitude interception and the Advanced Air Defence (AAD) missile for low-altitude interception. India is also developing its own long-range surface-to-air missile (LRSAM) system under Project Kusha. The LRSAM, also known as the Barak 8 missile system, is a joint project between India and Israel, with the involvement of DRDO and Israel Aerospace Industries (IAI). The LRSAM is designed to defend against airborne threats like aircraft, drones, and missiles.

Source: [The Times of India](#)

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

- **Production of Rocket Fuel:** Water ice can be split into hydrogen and oxygen through a process called electrolysis. These components are key ingredients in rocket fuel, making the production of rocket fuel a viable use of lunar water ice.
- **Cooling Equipment:** Water has excellent thermal properties and can be used in systems designed to cool equipment, especially in harsh lunar conditions where temperature regulation is crucial for the survival of instruments and habitats.
- **Construction of Buildings:** Water ice can be used as a binder in the construction of buildings on the Moon. By mixing lunar regolith (moon dust) with water, it's possible to create a concrete-like material for building structures, providing shelter and protection against the lunar environment.
- **Note:** A recent study indicates that the northern polar region of the moon harbors twice the amount of water ice compared to the southern polar region. The study supports the hypothesis that the primary source of sub-surface water ice at the lunar poles is out-gassing associated with volcanic activity during the Imbrian period.

Source: [The Hindu](#)

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

- Statements 1 and 2 are correct. The moon orbits the Earth roughly once a month. This lunar orbit takes approximately 29.53 days to complete, which is the basis for the lunar month in various calendar systems. Antares is the brightest star in the constellation of Scorpius. It is a red supergiant star and one of the largest and most luminous stars in our galaxy.
- Statement 3 is incorrect. Occultation is an astronomical term that refers to a situation when a smaller celestial body passes in front of a larger one, temporarily hiding the larger object from view.

Source: [The Hindu](#)

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

- Statement 1 is correct. Quarks are fundamental particles that make up protons and neutrons. They are considered elementary particles and are key components of the Standard Model of

particle physics. Protons and neutrons are common examples of three-quark hadrons, which are composite particles made up of three quarks bound together by the strong nuclear force.

- Statement 2 is incorrect. Quarks do not have the capability to exist independently. They are always bound together by the strong nuclear force within hadrons (e.g., protons and neutrons). The strong nuclear force prevents quarks from being observed in isolation, a phenomenon known as quark confinement.

Source: [The Hindu](#)

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

- Liquid nitrogen is widely used in food processing and preservation due to its extremely low temperature of  $-196^{\circ}\text{C}$  ( $-321^{\circ}\text{F}$ ). Its rapid freezing capability helps maintain the quality of food products by minimizing ice crystal formation, preserving texture, and reducing the chances of microbial growth. Liquid nitrogen's extreme cold can cause severe damage to skin, mucous membranes, and internal organs if mishandled or ingested. Liquid nitrogen has been used in medical settings since the 1960s, especially in the treatment of benign pre-cancers and cancers. This process, known as cryotherapy, uses temperatures as low as  $-196$  degrees Celsius to freeze and destroy cancer cells. It also increases the food shelf life acting as a preservative.

Source: [The Hindu](#)

**61. Correct Answer is (C)**

- Standard Essential Patents are patents that are essential to implement a specific industry standard or technology. They play a vital role in promoting innovation and ensuring compatibility among various devices and systems. By licensing these patents under fair, reasonable, and non-discriminatory (FRAND) terms, companies can develop products that adhere to common standards, leading to greater interoperability and a more efficient technological ecosystem. This, in turn, benefits both companies and consumers by fostering competition, encouraging innovation, and offering a wider range of compatible products.

Source: [The Hindu](#)

**62. Correct Answer is (C)**

- Ethylene oxide is used for the sterilization of medical devices and equipment that cannot withstand high-temperature sterilization methods. It can be used as a fumigant for spices, nuts, and other food products to control microbial growth and maintain product quality. In agriculture, ethylene oxide is used as a pesticide and fumigant to control pests and protect crops. However, ethylene oxide is not typically used in household electrical appliances. Its primary uses are in sterilization, food processing, and agricultural applications.

Source: [The Hindu](#)

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

- Thrombocytopenia Thrombosis Syndrome (TTS) is a rare blood disorder characterized by low platelet counts (thrombocytopenia) and blood clots (thrombosis). Platelets, also known as thrombocytes, are small blood cells that play a crucial role in the blood clotting process. In TTS, the body's immune system produces antibodies that mistakenly attack and destroy platelets, leading to a reduced platelet count.

Source: [Forum IAS](#)

**64. Correct Answer is (D)**

- Balanced fertilization refers to the process of supplying essential nutrients to crops in the right proportion. The primary nutrients in balanced fertilization are Nitrogen (N), Phosphorus (P), and Potassium (K). These three nutrients are essential for plant growth and development and are required in relatively large quantities compared to other nutrients. They are often represented by

the acronym NPK. Secondary nutrients include Sulfur (S), calcium, and magnesium. Micronutrients include iron, zinc, copper, manganese, boron, and molybdenum.

Source: [Forum IAS](#)

**65. Correct Answer is (D)**

- The Moon is tidally locked with Earth, which means that it rotates on its axis at the same rate at which it orbits our planet. As a result, the same side of the Moon always faces Earth, while the far side remains unseen from our perspective. It is important to note that the far side of the Moon does receive sunlight and experiences day and night cycles, just like the near side. However, due to the tidal locking, it is never visible from Earth without the aid of spacecraft or lunar orbiters.

Source: [The Hindu](#)

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

- Project-75I, also called P75(I), is an initiative started by the Indian Navy to get new submarines with modern features like Air-Independent Propulsion (AIP) systems. The goal is to improve the Navy's undersea abilities and support local submarine-building skills through sharing technology and working with foreign allies.

Source: [The Hindu](#)

**67. Correct Answer is (C)**

- Statements 1 and 3 are correct. In India, CRC is the seventh most common type of cancer in India, with cases increasing by 20% from 2004 to 2014. This indicates that CRC is a significant health concern in India. *Fusobacterium nucleatum* has been shown to play a role in colorectal cancer (CRC) by helping cancer cells escape the immune system and spread within the gut. Studies have indicated that *Fusobacterium nucleatum* can modulate the tumor microenvironment, diminish adaptive immunity against colorectal cancers.
- Statement 2 is incorrect. *Fusobacterium nucleatum* is not commonly found in the human brain. It is a gram-negative anaerobic bacterium that is indigenous to the human oral cavity and can also be found in the gastrointestinal tract.

Source: [The Hindu](#)

**68. Correct Answer is (C)**

- Magnetic Resonance Imaging (MRI) is a non-invasive imaging technique that utilizes the principles of nuclear magnetic resonance. It works by applying a strong magnetic field to align the nuclear spins of hydrogen atoms (mainly from water and fat) in the body. Subsequently, a radiofrequency pulse is used to excite the atoms, causing them to emit energy signals as they return to their original state. The scanner detects these signals and constructs detailed cross-sectional images of the scanned body part.

Source: [The Hindu](#)

**69. Correct Answer is (C)**

- Statements 1, 3 and 4 are correct. West Nile virus primarily infects birds, which are the main reservoirs for the virus. Mosquitoes become infected when they feed on infected birds and then transmit the virus to other animals, including humans. Approximately 80% of West Nile virus infections in humans are asymptomatic, meaning most people infected with the virus do not show symptoms. The West Nile virus is primarily transmitted to humans through the bite of an infected mosquito. The virus cannot be spread through casual contact or through the airborne route. However, in a few cases, it can be transmitted through blood transfusions, organ transplants, or from mother to child during pregnancy or breastfeeding.
- Statement 2 is incorrect. The primary vectors for the transmission of West Nile virus to humans are mosquitoes of the *Culex* genus.

Source: [The Hindu](#)

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

- The hypothalamus is the brain region responsible for regulating various physiological processes, including body temperature. It serves as a critical link between the nervous system and the endocrine system. Both schizophrenia and certain antipsychotic medications can impact the functioning of the hypothalamus, leading to temperature dysregulation and other related issues.

Source: [The Hindu](#)

