# **Forum** AS

# 10 PM Current Affairs Quiz Compilation

23rd to 28th October, 2023

#### Art & Culture

#### Q.1) With reference to Dogra architecture, consider the following statements:

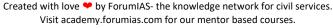
- 1. This architecture often utilizes locally available materials such as wood, stone, and clay, which help in maintaining a comfortable indoor temperature and provide insulation from the harsh weather.
- 2. Dogra buildings often feature asymmetrical layouts and minimalist detailing.
- 3. Dogra architecture combines elements of both Hindu and Tibetan styles.

#### 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

#### Answer: C

- **Statements 1 and 3** are correct. Dogra architecture refers to the traditional architectural style and building practices associated with the Dogra community. They primarily ruled over Jammu and Kashmir from 1846 to 1947.
- Examples of Dogra Architecture: Mubarak mandi, Jharokha style of balcony, Amar Mahal Palace.
- Dogra architecture often utilizes locally available materials such as wood, stone, and clay, which help in maintaining a comfortable indoor temperature and provide insulation from the harsh weather.
- Dogra architecture is influenced by multiple architectural traditions, including elements from Hindu, Tibetan, and other neighboring styles. This blend of influences contributes to the unique character of Dogra architecture in the Jammu and Kashmir region.
- **Statement 2** is incorrect. Dogra architecture is characterized by its symmetrical layouts and ornate detailing. It tends to be elaborate and ornate, with intricate carvings, colorful murals, and elaborate domes and spires. Dogra buildings are also often made of stone or brick and feature courtyards and open spaces, which is different from the minimalist approach.





Q.2) It is a traditional martial art that originated in the Vijayanagar Empire in the state of Karnataka. It is characterized by the use of a knuckleduster to strike the opponent. Which one of the following martial arts is described above?

- a) Kalaripayattu
- b) Silambam
- c) Vajra Mushti Kalaga
- d) Kuttu Varisai

#### Answer: C

- Vajra Mushti Kalaga is a traditional Indian martial art form that originated in Karnataka during the Vijayanagar Empire. It is a form of wrestling that uses a knuckleduster, called a vajra mushti, to strike the opponent. The vajra mushti is usually made of ivory or buffalo horn and has small spikes at the knuckles.
- The goal of Vajra Mushti Kalaga is to draw blood from the opponent's head. The wrestlers use a variety of techniques, including grappling, striking, and takedowns, to try to land a blow on the opponent's head.
- Vajra Mushti Kalaga was once a popular form of wrestling in Karnataka, but it has declined
  in popularity in recent years. It is still occasionally performed during the Dasara festival in
  Mysore, Karnataka.

Source: ForumIAS

### Ancient History

#### Q.3) With reference to Edakkal Caves, consider the following statements:

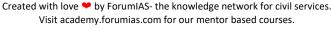
- 1. These caves are a series of natural caves that were formed by volcanic activity.
- 2. These caves were used by ancient humans as a burial ground.
- 3. These caves are home to a number of ancient Buddhist temples.

#### How many of the above statements are correct?

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

#### Answer: A

- **Statements 1 and 3** incorrect. the Edakkal Caves are not a series of natural caves that were formed by volcanic activity. They are two natural caves that are believed to have been formed by a large split in a huge rock.
- The Edakkal Caves are located in the Ambukutty hills, which are part of the Western Ghats Mountain range. The Western Ghats are a non-volcanic mountain range, so it is not possible for the Edakkal Caves to have been formed by volcanic activity.
- Edakkal Caves are not actually caves. They are part of a prehistoric rock shelter formed naturally when one huge boulder got wedged between two bigger ones. That's why the name Edakkal itself means "a stone in between". The caves feature Neolithic-era pictorial





writings dating back to at least 6,000 BCE. The caves have engravings of human and animal figures besides symbols and letters.

- The Edakkal Caves are not known for being home to ancient Buddhist temples. Instead, these caves are primarily famous for their prehistoric rock engravings and petroglyphs, which are believed to be of significance for understanding the region's ancient history and culture. They are more closely associated with early human activities rather than religious structures.
- **Statement 2** is correct. The Muniyaras, or ancient burial sites, have been discovered in the vicinity of the Edakkal Caves, and they are believed to have been used by the people who lived in the caves. The discovery of the Muniyaras suggests that the Edakkal Caves were used as a burial ground by the people who lived in the caves.

Source: ForumIAS

# Q.4) The Indian government has launched Project UDBHAV to revive and integrate India's ancient military wisdom with contemporary military practices. In this context, which of the following aspects of Chanakya's military strategy as outlined in the "Arthashastra" could serve as a source of inspiration for Project UDBHAV?

- 1. It discouraged the use of spies and intelligence gathering, considering it unethical.
- 2. It recognized the significance of alliances and diplomacy in strengthening a kingdom's position.
- 3. It emphasized using brute force and overwhelming numbers as the primary strategy in warfare.

#### Select the correct code given below:

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

#### Answer: B

- Chanakya emphasized the importance of a strong intelligence network. He believed that accurate and timely information about the enemy's intentions, strengths, and weaknesses was essential for victory. Spies and informants played a critical role in gathering this intelligence.
- Chanakya recognized the significance of alliances and diplomacy in strengthening a kingdom's position. He advised rulers to form alliances with friendly neighboring states to deter potential aggressors and ensure support during conflicts. This aligns with modern military practices like international cooperation and soft power projection.
- Chanakya did not advocate for the use of brute force and overwhelming numbers as the
  primary strategy in warfare. Instead, he emphasized the importance of intelligence,
  strategy, and adaptability in military operations.



#### Polity

#### Q.5) With reference to Preventive Detention, consider the following statements:

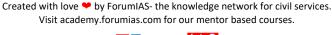
- 1. In India, the Constitution itself allows for preventive detention.
- 2. The states and the central government have distinct laws governing preventive detention.
- 3. For preventive detention, there are very narrow grounds of judicial review because the Constitution emphasizes the state's "subjective satisfaction" when ordering a detention.
- 4. Preventive detention is not subject to the same legal safeguards as regular imprisonment.

#### How many of the above statements are correct?

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

#### Answer: C

- **Statements 1, 2 and 3** are correct. Preventive detention means detention of a person by the state without trial and conviction by court, but merely on suspicion. The detention could be up to a year unless extended.
- In countries such as Britain, United States and Canada, preventive detention is a wartime measure. In India, the Constitution itself allows for preventive detention.
- Article 22 of Part III of the Constitution, which deals with fundamental rights, grants the state the power to suspend these rights for preventive detention.
- The state can order preventive detention under various laws. At the national level, examples of such laws include the National Security Act and the Conservation of Foreign Exchange and Prevention of Smuggling Activities Act, 1974 (COFEPOSA).
- For preventive detention, there are very narrow grounds of judicial review because the Constitution emphasizes the state's "subjective satisfaction" when ordering a detention.
- Judicial review in such cases is often limited to whether the Advisory Board applied its mind, considered all material facts and whether the state showed malicious intention in ordering detention.
- **Statement 4** is incorrect. Preventive detention is subject to the same legal safeguards as regular imprisonment, with some additional safeguards. In India, preventive detention is governed by the Constitution of India and the Preventive Detention Act, 1950. The Constitution of India provides that no person shall be detained without trial for more than three months, unless an advisory board has reported that there is sufficient cause for such detention.
- In addition to the safeguards provided by the Constitution, the Preventive Detention Act, 1950 also provides for certain additional safeguards. For example, the Act requires that the detaining authority must inform the detenu of the grounds of detention within five days of the detention. The detenu also has the right to make a representation against the detention to the Advisory Board.
- However, the procedural safeguards in preventive detention are often weaker than those in regular imprisonment, which raises concerns about the potential for misuse of this power.





#### Q.6) With reference to the Indian Polity, consider the following statements:

- 1. A non-MP can be interrogated by the Privilege Committee of the Lok Sabha for actions that attack the authority and dignity of the House.
- 2. The Ethics Committee can take up only cases of misconduct that involve MPs.
- 3. The Ethics Committee is a special committee, while the Privilege Committee is a standing committee.

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

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

#### Answer: B

- **Statements 1 and 2** are correct. A non-MP can be interrogated by the Privilege Committee of the Lok Sabha for actions that attack the authority and dignity of the House. The Privilege Committee has the power to summon any person, including non-MPs, to appear before it and give evidence.
- If a non-MP refuses to appear before the Privilege Committee or fails to answer questions truthfully, they may be held in contempt of the House.
- The Ethics Committee of the Lok Sabha can take up only cases of misconduct that involve MPs. This is because the Committee's mandate is to oversee the moral and ethical conduct of members.
- **Statement 3** is incorrect. Both the Ethics Committee and the Privilege Committee are standing committees, meaning that they are permanent committees that exist throughout the life of the Lok Sabha. A special committee, on the other hand, is one that is constituted for a specific purpose and is disbanded once that purpose has been fulfilled.

Source: ForumIAS

#### Social Issues (Health, Education, Vulnerable Sections)

#### Q.7) Consider the following statements:

- 1. Cervical cancer is a type of cancer that develops in the cervix, which is the lower part of the uterus that connects to the vagina.
- 2. Cervical cancer is a sexually transmitted disease (STD).
- 3. The northeastern regions of India have experienced a decreased survival rate for cervical cancer.

#### How many of the above statements are correct?

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

#### Answer: B



- **Statements 1 and 3** are correct. Cervical cancer is a type of cancer that develops in the cervix, which is the lower part of the uterus that connects to the vagina. Various strains of the human papillomavirus (HPV), a sexually transmitted infection, play a role in causing most cervical cancer. Cervical cancer is the second most common cancer among women in India, after breast cancer. As per the findings:
- Nearly 52% of patients diagnosed with cervical cancer between 2012 and 2015 survived.
- The highest survival rate was observed in Ahmedabad's at 61.5% followed by Thiruvananthapuram (58.8%) and Kollam (56.1%).
- In contrast, Tripura reported the survival rate at 31.6%.
- The survival rates were lower in India's northeastern region.
- Statement 2 is incorrect. Cervical cancer is not classified as an STD, as it is caused by HPV, which is a virus. While HPV can be transmitted through sexual activity, it is not classified as an STD. STDs are diseases that are specifically transmitted through sexual contact, and HPV can be transmitted through other means, such as skin-to-skin contact.

Source: ForumIAS

#### Q.8) Consider the following statements with reference to Hypertension:

- 1. India is the country with the highest number of people with hypertension in the world.
- 2. The prevalence of hypertension is higher in urban areas than in rural areas in India.
- 3. Northern States in India have a higher prevalence of hypertension than the national average.
- 4. United Nations Sustainable Development Goal 3 (SDG 3) strives to achieve healthy lives and well-being for all, with one of its key targets being the reduction of hypertension.

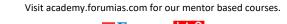
#### How many of the above statements are correct?

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

#### Answer: C

- Statements 1, 2 and 4 are correct. Hypertension, also known as high blood pressure, is a condition in which blood pressure is consistently too high. Blood pressure is the force of blood against the walls of the arteries. When blood pressure is too high, it can damage the arteries and lead to heart disease, stroke, kidney disease, and other health problems. According to the World Health Organization, an estimated 188.3 million people in India have hypertension, which is the highest number of people with hypertension in any country in the world. The prevalence of hypertension is higher in urban areas (12.5%) than in rural areas (10.6%). United Nations Sustainable Development Goal 3 (SDG 3) strives to achieve healthy lives and well-being for all, with one of its key targets being the reduction of hypertension. Hypertension is often underdiagnosed and undertreated in India. A study published in The Lancet Global Health in 2020 found that only 20% of people with hypertension in India are aware of their condition, and only 5% are adequately treated.
- **Statement 3 is** incorrect. Southern States have a higher prevalence of hypertension than the national average. Kerala (32.8% men and 30.9% women) has the highest number followed by Telangana.

Source: ForumIAS





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### Q.9) With reference to Automated Permanent Academic Account Registry (APAAR) consider the following statements:

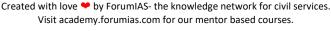
- 1. It is a system that tracks the academic performance of students in real-time and provides them with personalized feedback to improve their grades.
- 2. The APAAR ID is linked to the student's Aadhaar number, which ensures that each student has a unique and tamper-proof identification.
- 3. The APAAR ID is expected to help to reduce the burden on students and their parents, as they will no longer need to maintain multiple academic records for different schools or institutions.

#### How many of the above statements are correct?

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

#### Answer: B

- **Statement 1** is incorrect. APAAR is not primarily designed to track academic performance in real-time. Instead, it aims to create a permanent and tamper-proof record of academic achievements and qualifications for students and professionals. While APAAR could potentially provide feedback to students, its primary purpose is to prevent fraud and ensure the authenticity of academic credentials. It is not designed to provide personalized feedback to improve grades.
- **Statements 2 and 3** are correct. APAAR is a digital identification system for students in India. It is also known as the Education Ecosystem Registry or EduLocker. The APAAR assigns a unique 12-digit ID number to every student in India, from pre-primary to higher education levels. This ID number is linked to the student's Aadhaar number, ensuring accurate identification and reducing the chances of duplication. It is based on the concept of One Nation, One Student ID.
- Currently, students need to maintain separate academic records for each school or institution they attend. This can be a time-consuming and cumbersome process, especially for students who move frequently or attend multiple schools simultaneously.
- With APAAR, students will have a single, permanent academic record that can be shared
  with any educational institution or other stakeholder. This will eliminate the need for
  students to maintain multiple copies of their academic records, and it will make it easier
  for them to transfer their records to new schools when they move. APAAR will also make
  it easier for parents to track their children's academic progress.





#### Q.10) With reference to "Blood Transfusion" consider the following statements:

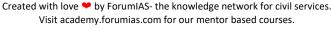
- 1. It is the process of transferring blood or blood products from one person (the donor) to another person (the recipient).
- 2. One of the most common reasons for blood transfusion is to replace blood lost due to injury, surgery, or childbirth.
- 3. Blood transfusions can cure diseases such as anemia, cancer, and HIV/AIDS.

#### 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

#### Answer: A

- Statements 1 and 2 are correct. Blood transfusion is a medical procedure in which blood is transferred from one person (the donor) to another (the recipient). This is done to replace blood that has been lost due to injury, surgery, or illness. Blood can also be transfused to carry oxygen and nutrients to the body's tissues, or to help the body fight infection.
- One of the most common reasons for blood transfusion is to replace blood lost due to injury, surgery, or childbirth.
- Injuries, such as car accidents or gunshot wounds, can cause severe blood loss. Surgery can also lead to blood loss, especially if it is a major surgery. Childbirth can also cause blood loss, especially if it is a prolonged or complicated delivery.
- Blood transfusions can help to restore the blood volume and oxygen levels in patients who have lost a lot of blood. This can help to prevent complications such as shock and organ failure.
- The blood transfusion system in India is governed by the National Blood Transfusion Council (NBTC), which is a division of the National AIDS Control Organization (NACO). The NBTC is responsible for developing and implementing policies and standards for blood transfusion services in India.
- Statement 3 is incorrect. While blood transfusions can help people manage some of the symptoms of anemia, cancer, and HIV/AIDS, they don't provide a cure. For example, a blood transfusion can boost the level of red blood cells in a person with anemia, but it doesn't address the underlying cause of the anemia.





### Q.11) With reference to Internationalizing higher education, which of the following statements are correct?

- 1. It refers to the process of making higher education more globally connected and inclusive.
- 2. It refers to prioritizing profit over the quality of education, with a focus on attracting international students.
- 3. Internationalization of education is one of the goals of NEP 2020.
- 4. It aims to offer opportunities for students to study, work, or engage in research in other countries, promoting cultural exchange and global awareness.

#### Select the correct code given below:

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

#### Answer: D

- Statements 1, 3 and 4 are correct. Internationalizing higher education refers to the process of making higher education more globally connected and inclusive. The primary goal of internationalization in higher education is to prepare students to engage with and understand global issues, collaborate with individuals from diverse backgrounds, and address the challenges and opportunities presented by an increasingly interconnected world.
- Internationalization of education is one of the goals of NEP 2020. It aims to achieve it by making the Indian education system self-reliant and compliant to global standards & norms. It would help India in attracting students from abroad, in large numbers.
- It also aims to offer opportunities for students to study, work, or engage in research in other countries, promoting cultural exchange and global awareness.
- **Statement 2** is incorrect. The core purpose of internationalization is to enhance the overall quality of education by incorporating global perspectives, promoting diversity, and preparing students to thrive in a globalized world.

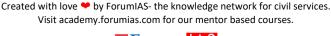
#### Source: ForumIAS

### Q.12) Which one of the following characteristics is related to Mayer-Rokitansky-Kuster-Hauser (MRKH) syndrome?

- a) Underdevelopment or absence of the uterus
- b) Absence of menstruation for six months or more
- c) Overproduction of androgens by the adrenal glands
- d) The presence of adhesions or scar tissue in the uterine cavity

#### Answer: A

- Mayer-Rokitansky-Küster-Hauser syndrome (MRKH), often referred to as MRKH syndrome, is a congenital disorder that affects the female reproductive system. It is characterized by the underdevelopment or absence of the uterus and the upper part of the vagina in women.
- Recently, the Supreme Court has allowed a woman with Mayer-Rokitansky-Kuster-Hauser (MRKH) Syndrome to undergo surrogacy using a donor egg.





#### Acts and Policies

### Q.13) With reference to Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act (POSH Act), consider the following statements:

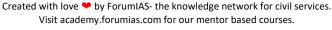
- 1. It is a gender-neutral legislation that primarily protects both men and women from sexual harassment at the workplace.
- 2. The POSH Act does not define sexual harassment or provide safeguards against false or malicious charges
- 3. The POSH Act mandates States to appoint a District Officer in every district.

#### How many of the above statements are correct?

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

#### Answer: A

- **Statements 1 and 2** are incorrect. The Act specifically addresses sexual harassment of women in the workplace, and its provisions apply to all organizations that employ women. While the Act does provide for the protection of all individuals in the workplace, regardless of their gender, its main focus is on protecting women from sexual harassment. The POSH Act applies to all workplaces in India, including public and private sector organizations, NGOs, and educational institutions. It also applies to workplaces that are located outside of India, but where the employer is an Indian citizen or an Indian company.
- The POSH Act does define sexual harassment. Section 2(n) of the POSH Act defines sexual harassment as: any unwelcome sexual behaviour, whether directly or impliedly, such as: (i) physical contact and advances; or (ii) a demand or request for sexual favours; or (iii) making sexually coloured remarks; or (iv) showing pornography; or (v) any other unwelcome physical, verbal or non-verbal conduct of a sexual nature.
- The POSH Act also provides safeguards against false or malicious charges. Section 14 of the POSH Act states that the Internal Complaints Committee (ICC) shall inquire into the complaint and submit a report to the employer within 60 days. The report shall contain the findings of the inquiry and recommendations for action to be taken by the employer. The employer is required to take action on the recommendations of the ICC within 60 days of receiving the report. If the employer finds that the complaint is false or malicious, the employer may take disciplinary action against the complainant.
- Statement 3 is correct. The POSH Act mandates States to appoint a District Officer in every district. Functions of District Officer under POSH Act are: Constitute Local Complaints Committees (LCCs), Appoint Nodal Officers, Submit Annual reports to Government.





#### Q.14) Consider the following statements:

**Statement-I:** Make in India is a government initiative that was launched with the aim of making India a global manufacturing hub.

**Statement-II:** Make in India requires companies to manufacture their products entirely in India. 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 ate 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

#### Answer: C

- **Statement 1** is correct. Make in India is a government initiative launched in 2014 with the aim of making India a global manufacturing hub. The initiative aims to boost industrial growth, create job opportunities, and reduce dependency on imports. The Make in India initiative has had a number of positive impacts on India such as Increased FDI inflows, Increased manufacturing growth, Job creation, Reduced import dependency, etc.
- Statement 2 is incorrect. The goal of Make in India is to promote manufacturing in India and to make India a more competitive manufacturing destination. However, there is no requirement for companies to manufacture their products entirely in India. Companies can still import components and parts from other countries, as long as the final product is assembled in India.

Source: ForumIAS

### Q.15) Which one of the following government programs informs consumers about the energy performance of appliances and equipment?

- a) Regulatory Compliance & Labeling Scheme
- b) Standards & Labelling Programme
- c) Benchmarking & Certification Program
- d) Product Accreditation & Rating System

#### Answer: B

- The Standards & Labelling Programme (S&L Programme) is a flagship initiative of the Ministry of Power, Government of India, launched in 2006. The programme aims to promote energy efficiency in the country by informing consumers about the energy performance of appliances and equipment.
- Under the S&L Programme, the Bureau of Energy Efficiency (BEE) prescribes minimum energy performance standards for appliances and equipment. Appliances and equipment that meet these standards are eligible to display an energy efficiency label. The label indicates how energy efficient the appliance or equipment is, on a scale of 1 to 5 stars, with 5 stars being the most energy efficient.
- The S&L Programme is mandatory for a number of appliances and equipment, including refrigerators, air conditioners, washing machines, and electric fans. It is voluntary for a number of other appliances and equipment, such as televisions, computers, and microwave ovens.



### Q.16) With reference to the Medical Termination of Pregnancy (Amendment) Act, 2021, which of the following statements are correct?

- 1. It requires women to obtain the consent of their husbands or partners before having an abortion.
- 2. It reduces the number of authorized medical practitioners required to perform a medical termination of pregnancy from three to two.
- 3. According to the Act, if a contraceptive method or device fails, a married woman is allowed to terminate her pregnancy up to 20 weeks.

#### Select the correct answer from the codes given below:

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

#### Answer: D

- **Statement 1** is incorrect. The MTP Act gives women the right to make their own decision about having an abortion, regardless of whether they have the consent of their husband or partner. This was confirmed by the Punjab and Haryana High Court and the Supreme Court, who both upheld the woman's right to choose without interference from her partner. This is a crucial right that ensures women have autonomy over their own bodies and reproductive health.
- **Statements 2** and 3 are incorrect. Under the MTP Amendment Act, 2021, if a pregnancy is between 12 and 20 weeks, only two medical practitioners are required to perform a medical termination of pregnancy, as opposed to the previous requirement of three. This is a significant change, as it makes it easier for women to access abortion services, especially in areas where there may be a shortage of medical practitioners.
- According to the Medical Termination of Pregnancy (Amendment) Act, 2021, a married woman is allowed to terminate her pregnancy up to 20 weeks if a contraceptive method or device fails. This is a significant expansion of access to safe and legal abortion services for married women in India.

Source: DNA

# Q.17) The Food Safety and Standards Authority of India (FSSAI) has recommended the use of Quick Response (QR) codes on food products. Which of the following statements in this context is/are correct?

- 1. QR codes will have comprehensive details about the products ingredients, nutritional information, allergens, manufacturing date among others.
- 2. It is intended to replace the requirement to provide mandatory information on the product label.

#### Select the correct answer from the code given below:

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

Answer: A



- **Statement 1** is correct. QR codes will have comprehensive details about the products ingredients, nutritional information, allergens, manufacturing date among others.
- **Statement 2** is incorrect. The inclusion of a QR code for the accessibility of information does not replace the requirement to provide mandatory information on the product label.

Source: ForumIAS

### Q.18) DNA and face-matching will be implemented by the government at some of the police station in the country. In this regard, which of the following statements is/are correct?

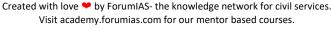
- 1. The Criminal Procedure Identification Act (CrPI) Act, 2022 allows the police and Central investigating agencies to collect, store, and analyze physical and biological samples, including retina and iris scans of arrested individuals.
- 2. The use of DNA and face-matching can assist in bridging the educational gap of individuals who have been arrested.

#### Select the correct answer from the code given below:

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

#### Answer: A

- **Statement 1** is correct. The Government of India is implementing DNA and face-matching systems at police stations across the country as per Criminal Procedure Identification Act,2022.
- The act allows the police and the Central investigating agencies to collect, store and analyze physical and biological samples including retina and iris scans of arrested persons.
- This Act replaced the Identification of Prisoners Act,1920 whose scope was limited to capturing finger impressions, footprints and photographs of convicted prisoners and a specific category of arrested and non-convicted persons under the orders of a Magistrate.
- The National Crime Records Bureau (NCRB) has been given responsibility to implement this act.
- **Statement 2** is incorrect. DNA and face-matching systems can identify individuals, but they can't educate them. Education requires interaction, engagement, and the transfer of knowledge and understanding. DNA and face-matching systems don't offer that.





#### International Relations/Organisations

### Q.19) With reference to the Vienna Convention on Diplomatic Relations, consider the following statements:

- 1. It promotes and protects the rights and privileges of diplomatic missions and their personnel.
- 2. The Vienna Convention only applies to diplomatic relations between states and does not cover relations between international organizations or non-state actors.

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

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

#### Answer: C

- Statements 1 and 2 are correct. Vienna Convention on Diplomatic Relations is an international treaty signed in 1961. It aims to put forth a framework for diplomatic interactions between independent nations and aims to ensure the development of friendly relations among nations. The convention formalizes the longstanding practice of diplomatic immunity. It grants diplomatic missions' privileges that enable diplomats to perform their functions without fear of coercion or harassment by the host country. It promotes and protects the rights and privileges of diplomatic missions and their personnel.
- The Vienna Convention on Diplomatic Relations only applies to diplomatic relations between states. It does not cover relations between international organizations or non-state actors. This is because:
- International organizations have their own set of rules and regulations governing their relations with states and other international organizations. These rules and regulations are typically set out in the constituent instruments of the organizations themselves. For example, the Charter of the United Nations establishes the rules and regulations governing the relations between the United Nations and its member states.
- Non-state actors do not have the same legal status as states or international
  organizations. They are not bound by the Vienna Convention on Diplomatic Relations or
  other treaties that govern diplomatic relations between states. However, non-state actors
  may still have diplomatic relations with states or international organizations. These
  relations are typically governed by informal agreements or arrangements.



### Q.20) The term "Global South" has often seen in the news. In this context, which of the following statements are correct?

- 1. The Global South is disproportionately affected by climate change, despite contributing less to the problem.
- 2. India's G20 presidency in 2023 has provided it with a unique opportunity to champion the Global South.
- 3. The Global South is a homogeneous region with similar cultures and traditions.
- 4. The Global South is a region of the world that is often overlooked by the developed countries.

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

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

#### Answer: C

- **Statements 1, 2 and 4** are correct. The Global South is disproportionately affected by climate change, despite contributing less to the problem. This is because:
- First, the Global South is more vulnerable to the effects of climate change due to its geographical location and economic development. For example, many countries in the Global South are located in low-lying coastal areas, which are at risk of flooding due to rising sea levels. Additionally, many countries in the Global South have economies that are heavily reliant on agriculture, which is particularly vulnerable to drought and other extreme weather events.
- Second, the Global South has fewer resources to adapt to the effects of climate change. Third, the Global South has less access to clean energy technologies. This means that countries in the Global South are more reliant on fossil fuels, which are a major contributor to climate change.
- India's G20 presidency in 2023 has provided it with a unique opportunity to champion the Global South. India has used its presidency to focus on issues of particular concern to developing countries, such as food security, energy security, and sustainable development. India has also invited a number of developing countries to participate in the G20, which has helped to give them a greater voice in global discussions.
- The Global South is a region of the world that is often overlooked by the developed countries. This is due to: Economic inequality, Lack of political representation, Geographic distance, Cultural differences, Media bias, etc.
- Statement 3 is incorrect. The Global South is not a homogeneous region with similar cultures and traditions. In fact, it is one of the most diverse regions in the world, with a wide range of cultures, languages, and religions.



### Q.21) With reference to the Regional Comprehensive Economic Partnership (RCEP) consider the following statements:

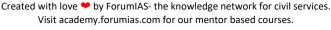
- 1. RCEP is the largest free trade agreement in the world.
- 2. India decided to opt out of RCEP because it was concerned that the RCEP would open the "floodgates for Chinese goods" to enter India, further raise India's trade deficits, and weaken its anti-dumping duties that it has imposed on Chinese items from the chemicals, iron, and steel industries.
- 3. India's withdrawal from RCEP means that it is losing its status as a major player in the Asia-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

#### Answer: C

- Statements 1 and 2 are correct. The Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement between 15 countries in the Asia-Pacific region: Australia, Brunei, Cambodia, China, Indonesia, Japan, South Korea, Laos, Malaysia, Myanmar, New Zealand, the Philippines, Singapore, Thailand, and Vietnam. RCEP is the largest free trade agreement in the world, covering over 30% of the global population and GDP. It aims to reduce tariffs, improve market access, and establish common rules for trade and investment across the region.
- Out of many other reasons, India decided to opt out of RCEP because it was concerned that the RCEP would open the "floodgates for Chinese goods" to enter India, further raise India's trade deficits, and weaken its anti-dumping duties that it has imposed on Chinese items from the chemicals, iron, and steel industries.
- Statement 3 is incorrect. India's withdrawal from RCEP does not necessarily mean that it is losing its status as a major player in the Asia-Pacific region. India is still a large and growing economy, and it is a member of other important regional organizations, such as the South Asian Association for Regional Cooperation (SAARC) and the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC).
- India is also playing an increasingly important role in global affairs, and it is a member of the G20 and the BRICS group of emerging economies.
- However, India's withdrawal from RCEP does mean that it is missing out on an opportunity to boost its trade and investment with other countries in the Asia-Pacific region.





### Q.22) With reference to Vienna Convention on Diplomatic Relation, consider the following statements:

**Statement-I:** Under Article 9 of the Convention, the host country can declare a diplomat or their staff to be "persona non grata", which means that they are no longer welcome in the country.

**Statement-II:** This decision can be made at any time and the host country is not required to provide a detailed explanation for this decision.

#### 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 at 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

#### Answer: B

- Statements 1 and 2 are correct. Under Article 9 of the Convention, the host country can declare a diplomat or their staff to be persona non grata, which means that they are no longer welcome in the country. Article 9 states that the receiving state may at any time and without having to explain its decision, notify the sending state that the head of the mission or any member of the diplomatic staff of the mission is persona non grata and that the sending state must accordingly recall or terminate the functions of that person. This decision can be made at any time and the host country is not required to provide a detailed explanation for this decision.
- Article 11 of the Convention states that if there is no specific agreement on the number of
  diplomats allowed in a mission, the receiving State (host country) can set limits. The host
  country can determine the reasonable and normal size of a diplomatic mission. This
  determination can be made based on the circumstances and conditions in the host country
  and the specific needs of the mission.

#### Source: ForumIAS

#### Q.23) Consider the following statements:

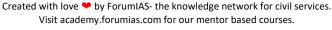
- 1. Immigration is the process of leaving one country, while emigration is the process of arriving in another country.
- 2. The migration trend between India and OECD countries has been increasing in recent years.

#### 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

#### Answer: B

- Statement 1 is incorrect. Immigration is the process of entering and settling in a new country, while emigration is the act of leaving one's own country to reside in another. So, immigration pertains to arriving in a different country, not leaving it.
- Statement 2 is correct. The migration trend between India and OECD countries has been increasing in recent years. In 2021, India was the top source country for new migrants to OECD countries, with over 400,000 new migrants.





Further, in 2020, India surpassed China as the largest source of migrants to OECD countries.
By 2022, 6.1 million permanent-type migrants moved to OECD, a 26% increase. Most
migrants went to the Anglosphere, especially the US, UK, and Singapore. 80% of these
migrants were working, contributing to the economies. The tech industry absorbed a
significant number of these migrants.

Source: ForumIAS

#### Q.24) Consider the following statements:

- 1. The Global Solar Stocktake Report is a report that is being compiled by the International Solar Alliance (ISA) to assess the progress that has been made in the adoption of solar energy around the world.
- 2. The objective of the Global Solar Facility is to establish connections between tropical countries and the rest of the world to tap into solar energy resources.

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

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

#### Answer: A

- Statement 1 is correct. The Global Solar Stocktake Report is a report that is being compiled by the International Solar Alliance (ISA) to assess the progress that has been made in the adoption of solar energy around the world.
- Statement 2 is incorrect. The GSF is a financial mechanism that aims to mobilize \$1 trillion in investments in solar energy by 2030, and it is open to all countries, regardless of their location.
- The GSF is designed to make solar energy more affordable and accessible in developing countries. It does this by providing guarantees and insurance to investors in solar projects, and by investing in research and development of new solar technologies.
- It will have three funds: 1) payment guarantee fund 2) Insurance fund to mitigate project risks and 3) Investment fund for technical assistance.

Source: ForumIAS

#### Q.25) Consider the following statements:

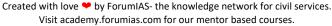
- 1. The Japan-India Semiconductor Supply Chain Partnership is for only Governments-to-Government (G2G) collaboration in the semiconductor supply chain sector.
- 2. The India-Japan Digital Partnership (IJDP) aims to promote cooperation between the two countries in the areas of digital transformation, information and communication technology (ICT), and start-ups.

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

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

#### Answer: B

• **Statement 1** is incorrect. The Union Cabinet of India has approved a memorandum of cooperation between India and Japan on a Semiconductor Supply Chain Partnership. It aims to strengthen cooperation between India and Japan towards enhancement of the





semiconductor supply chain. The duration of partnership is five years. The partnership is for both Governments-to-Government (G2G) and Business-to-Business (B2B) collaboration in the semiconductor supply chain sector.

• **Statement 2** is correct. The India-Japan Digital Partnership (IJDP) aims to promote cooperation between the two countries in the areas of digital transformation, information and communication technology (ICT), and start-ups.

Source: ForumIAS

### Q.26) With reference to United Nations Strategic Plan for Forests 2017-2030 (UNSPF), consider the following statements:

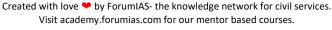
- 1. It is a global framework for action to sustainably manage all types of forests and to halt deforestation and forest degradation.
- 2. Its target is to increase forest area by 3% worldwide by 2030.
- 3. It promotes forest management practices that ignore the role of forests in mitigating climate change.
- 4. It is being implemented by the United Nations Environment Programme (UNEP).

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

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

#### Answer: B

- **Statements 1 and 2** are correct. United Nations Strategic Plan for Forests 2017-2030 (UNSPF) is a global framework to achieve the sustainable management of all types of forests, including trees outside forests, and to combat deforestation and forest degradation. It was adopted by the UN General Assembly in 2017.
- Its target is to increase forest area by 3% worldwide by 2030. The plan contains a set of six Global Forest Goals and 26 associated targets to be reached by 2030. All these are voluntary in nature and universally applicable.
- **Statement 3** and 4 are incorrect. The United Nations Strategic Plan for Forests 2017-2030 (UNSPF) does not promote forest management practices that ignore the role of forests in mitigating climate change. One of the key objectives of the UNSPF is to recognize and emphasize the critical role of forests in climate change mitigation.
- The UNSPF is implemented by the Collaborative Partnership on Forests (CPF), which is a voluntary partnership of over 15 international organizations.





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

- 1. The Best Tourism Villages Initiative is a program launched by the Ministry of Tourism.
- 2. The United Nations World Tourism Organization (UNWTO) is responsible for regulating the global tourism industry.

#### 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

#### Answer: D

- Statements 1 and 2 are incorrect. The Best Tourism Villages Initiative is a global program launched by the United Nations World Tourism Organization (UNWTO) in 2021 to recognize and promote outstanding rural tourism destinations. The program aims to support villages that are committed to sustainable tourism and that exemplify rural and community-based values, products, and lifestyles. The award is given to villages that are leaders in rural development and preservation of landscapes, cultural diversity, local values and food traditions.
- Tourism regulation is primarily the responsibility of national governments. The UNWTO
  provides guidance and support to governments in developing and implementing tourism
  policies and regulations, but it does not have the authority to regulate the industry
  directly.
- The UNWTO's mission is to promote sustainable and inclusive tourism development. It does this by providing a forum for governments, the private sector, and other stakeholders to collaborate on tourism issues, by developing and promoting global tourism standards, and by providing technical assistance to developing countries.

#### Source: ForumIAS

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

- 1. The Gulf of Guinea is located off the western equatorial coast of Africa and extends from Cape Lopez in Gabon, north and west to Cape Palmas in Liberia.
- 2. The region surrounding the Gulf of Guinea experiences an equatorial climate.
- 3. Limpopo River, Orange River and the Congo River are some of the rivers that flow into the Gulf of Guinea.

#### How many of the above statements are correct?

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

#### Answer: B

• **Statements 1 and 2** are correct. The Gulf of Guinea is located off the western equatorial coast of Africa and extends from Cape Lopez in Gabon, north and west to Cape Palmas in Liberia. The region surrounding the Gulf of Guinea experiences an equatorial climate, which includes high temperatures, high humidity, and significant rainfall throughout the year.



• **Statement 3** is incorrect. Some of the rivers that flow into the Gulf of Guinea include: Niger River, Volta River, Cross River, Ogun River, Sanaga River, Ogooué River, Chiloango River.

Source: ForumIAS

#### Q.29) With reference to India and Qatar Relations, consider the following statements:

- 1. Qatar is a major source of food, textiles, and engineering goods to India.
- 2. India and Qatar are both members of the Gulf Cooperation Council (GCC).
- 3. Qatar is India's fourth largest trading partner.

#### How many of the above statements are correct?

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

#### Answer: A

- **Statements 1 and 2** are incorrect. India's major exports to Qatar include petroleum products, textiles, pharmaceuticals, and food products. Qatar's major exports to India include liquefied natural gas (LNG), liquefied petroleum gas (LPG), and petrochemicals.
- India is not a member of GCC. GCC comprises Bahrain, Kuwait, Oman, Qatar Saudi Arabia, and the United Arab Emirates.
- **Statement 3** is correct. India is the sixth largest trading partner of Qatar, while Qatar is the fourth largest trading partner of India.

Source: ForumIAS

### Economy

#### Q.30) Consider the following statements:

- 1. Kasturi Cotton Bharat aims to boost the global competitiveness of Indian cotton by taking charge of branding, traceability, and certification, with a focus on sustainability and benefiting all involved stakeholders.
- 2. India has the largest area under cotton cultivation in the world.
- 3. India is the only country in the world that grows all four species of cultivated cotton.
- 4. The quality of Indian cotton is inferior to that of cotton produced in other nations.

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

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

#### Answer: C

Statements 1, 2 and 3 are correct. Kasturi Cotton Bharat is a website launched by the
Ministry of Textiles, the Cotton Corporation of India, trade organizations, and the
industry. It aims to boost the global competitiveness of Indian cotton by taking charge of
branding, traceability, and certification, with a focus on sustainability and benefiting all

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involved stakeholders. Cotton Textiles Export Promotion Council (TEXPROCIL) has been designated as the implementing agency for Traceability, Certification and Branding of "KASTURI Cotton India".

- According to the Ministry of Textiles, India got 1st place in the world in cotton acreage with 120.69 Lakh Hectares area under cotton cultivation, which is around 36% of the world area of 333 Lakh Hectares. Gujarat is the largest producer of cotton in India. 67% of India's cotton is grown on rain-fed areas, and 33% on irrigated areas. India's productivity is ranked 38th, with a yield of 510 kg/ha.
- India is the only country to grow all four species of cultivated cotton: Gossypium arboreum (tree cotton), Gossypium herbaceum (herb cotton), Gossypium hirsutum (upland cotton), and Gossypium barbadense (pima cotton). This makes India a major player in the global cotton industry, with a large portion of the world's cotton production and export coming from the country. The different cotton species grown in India are adapted to different growing conditions and have unique characteristics that make them desirable for various textiles and fabrics. India's climate and soil conditions are particularly well-suited for cotton cultivation, making it a natural hub for the industry.
- Statement 4 is incorrect. Indian cotton is known for its high quality and is in high demand around the world. India is the world's second-largest producer of cotton, after China. It is also the largest producer and second largest consumer of cotton. Indian cotton is known for its long staple length, fine fiber, and high strength. These qualities make it ideal for spinning high-quality yarn and fabrics.

Source: ForumIAS

#### Q.31) With reference to the Fiscal Responsibility and Budget Management (FRBM) Act 2003, consider the following statements:

- 1. The FRBM Act requires the government to publish a medium-term fiscal policy statement (MTFP) every year.
- 2. The FRBM Act sets a target for the central government's fiscal deficit of 2% of GDP.
- 3. The FRBM Act is not a flexible and adaptable piece of legislation.

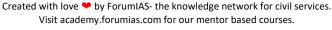
#### How many of the above statements are correct?

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

#### Answer: B

- Statements 1 and 3 are correct. The Fiscal Responsibility and Budget Management (FRBM) Act requires the government to publish a medium-term fiscal policy statement (MTFP) every year. The MTFP outlines the government's fiscal plans for the next three years. It includes projections for the fiscal deficit, debt-to-GDP ratio, and other key fiscal indicators.
- The MTFP is an important tool for ensuring transparency and accountability in the government's fiscal management. It allows the public to see how the government plans to manage its finances, and it provides a benchmark for assessing the government's performance.
- The MTFP is also used to guide the government's budget-making process. The government's annual budget should be consistent with the targets set in the MTFP.





- The FRBM Act is not a flexible and adaptable piece of legislation. It sets rigid targets for the fiscal deficit and debt-to-GDP ratio, which makes it difficult for the government to respond to economic shocks.
- For example, during the COVID-19 pandemic, the government needed to increase spending on healthcare and economic relief. However, the FRBM Act's rigid targets made it difficult for the government to do so. As a result, the government had to borrow more money, which increased the debt-to-GDP ratio.
- Statement 2 is incorrect. The FRBM Act mandates the central government to eliminate revenue deficit and reduce fiscal deficit to 3% of GDP by March 31, 2021. The FRBM Act also requires the government to limit the debt of the central government to 40% of the GDP by 2024-25.

Source: ForumIAS

#### Q.32) Consider the following statements:

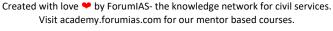
- 1. Nano-DAP (Di-ammonium Phosphate) is cheaper than conventional DAP and is economical for the farmers.
- 2. Nano-DAP will have 8% nitrogen and 16% phosphorus compared to 18% nitrogen and 46% phosphorus contained in the conventional DAP.
- 3. Nano-DAP reduces pollution of soil, air and water due to excessive use of phosphatic fertilizers.

#### 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

#### Answer: D

- **Statements 1, 2 and 3** are correct. Nano-DAP (Di-ammonium Phosphate) is a nanotechnology-based agri-input developed by the Indian Farmers Fertilizer Cooperative Limited (IFFCO).
- It will have 8% nitrogen and 16% phosphorus compared to 18% nitrogen and 46% phosphorus contained in the conventional granular bag.
- It is cheaper than conventional DAP and is economical for the farmers. It reduces pollution of soil, air and water due to excessive use of phosphatic fertilizers.





#### Q.33) Which one of the following defines the Purple Economy?

- a) It is an economic model that is based on the exploitation of natural resources and the production of waste.
- b) It is an economic model that recognizes the importance of care work and the empowerment of women to the functioning of economies, the well-being of societies, and the sustainability of life.
- c) It is an economic model that focuses on the sustainable use of marine resources and the development of coastal communities.
- d) It is an economic model that emphasizes the development and use of renewable energy sources.

#### Answer: B

- The Purple Economy is an economic model that recognizes the importance of care work and the empowerment of women to the functioning of economies, the well-being of societies, and the sustainability of life.
- There are four pillars of the purple economy: Universal Care Services, Work-Life Balance in the Job Market, Alleviate Rural Unpaid Work, and New Economic Policies.

Source: ForumIAS

#### Q.34) Consider the following:

- 1. Fintech companies
- 2. Credit unions
- 3. Peer-to-peer lending platforms
- 4. Insurance companies

### Which of the options provided above possesses the capability to deliver digital lending services?

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

#### Answer: A

- Fintech companies, Credit unions, Peer-to-peer lending platforms, Microfinance institutions are capable of digital lending.
- Digital lending is the process of applying for, receiving, and managing loans through online platforms. It uses technology to automate and streamline the lending process, making it faster, easier, and more convenient for borrowers.
- Digital lending platforms can be offered by traditional banks or by new fintech companies. They typically use a variety of data sources, including bank statements, credit history, and social media data, to assess a borrower's creditworthiness. This allows them to make faster and more informed lending decisions.



#### Q.35) With reference to India's Tax base, which of the following statements is/are correct?

- 1. India's tax base has significantly declined since 2013-14.
- 2. The number of returns filed by individual taxpayers in various income ranges has grown.

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

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

#### Answer: A

- **Statement 1** is incorrect. India's tax base has significantly expanded since 2013-14. The number of income tax returns filed by individuals has increased from 3.36 crore to 6.37 crore between assessment years 2013-14 and 2021-22.
- **Statement 2** is correct. The number of returns filed by individual taxpayers in various income ranges has grown.
- In the income range up to ₹5 lakh, there has been a 32% increase in the number of returns filed, including those with incomes below the taxable limit.
- For higher income ranges of ₹5 lakh to ₹10 lakh, the number of returns filed increased by 295%.

Source: ForumIAS

#### **Environment**

#### Q.36) Which of the following statements are correct with respect to Microalgae?

- 1. They are colorless.
- 2. They are single-celled organisms.
- 3. They are found only in water.
- 4. They are the primary producers in the food chain.
- 5. They play a role in carbon dioxide sequestration.

#### Select the correct answer from the codes given below:

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

#### Answer: B

• Microalgae are microscopic algae that are invisible to the naked eye. They are single-celled organisms that can be found individually or in colonies. Microalgae are incredibly diverse and come in a variety of shapes, sizes, and colors. Microalgae are important members of the aquatic ecosystem and play a vital role in the food chain. They are primary producers, which means that they are the base of the food chain and provide food for other organisms, such as zooplankton and fish. Microalgae also play a role in oxygen production and carbon dioxide sequestration. Microalgae can be found in all kinds of environments, including soil, snow, air and water.

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**Source:** ForumIAS

## Q.37) The term "Little Ice Age (LIA)" was seen in the news sometimes. Which of the following statements are correct regarding the findings of the study related to Little Ice Age in India?

- 1. LIA in the Western Ghats was characterized by moister conditions, possibly influenced by increased northeast winter monsoon (NEM).
- 2. The southward shift of the ITCZ and increased northward energy flow across the equator during a cold northern hemisphere contributed to the weakest phase of the Indian Summer Monsoon (ISM) during the LIA.

#### 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

#### Answer: C

- **Statements 1 and 2** are correct. The Little Ice Age (LIA) was a period of regional cooling, particularly pronounced in the North Atlantic region, that occurred from the early 14th century to the mid-19th century. It was not a true ice age of global extent. The term was introduced into scientific literature by François E. Matthes in 1939. As per the findings of the study:
- The study reconstructs vegetation-based climate changes and monsoonal variability in the Western Ghats from 1219-1942. LIA in the Western Ghats was characterized by moister conditions, possibly influenced by increased northeast winter monsoon (NEM), contrary to previous assumptions.
- It also found that the southward shift of the ITCZ and increased northward energy flow across the equator during a cold northern hemisphere contributed to the weakest phase of the Indian Summer Monsoon (ISM) during the LIA.

Source: ForumIAS

#### Q.38) With reference to Corals, which of the following statements are correct?

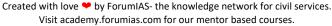
- 1. Corals are primarily vagile organisms, meaning they are capable of swimming freely throughout the ocean.
- 2. Corals have stinging tentacles that contain nematocysts used for prey capture.
- 3. Coral reefs are often associated with tropical and shallow waters.

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

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

#### Answer: C

• **Statement 1** is incorrect. Corals are sessile organisms, meaning they are fixed in place and cannot move around. They are attached to the bottom of the ocean by a root-like structure called a holdfast.





- **Statements 2 and 3** are correct. Corals have stinging tentacles that contain nematocysts used for prey capture. Nematocysts are microscopic stinging capsules that are found in the tentacles of corals, sea anemones, jellyfish, and other cnidarians.
- When coral polyp senses prey nearby, it fires its nematocysts. The nematocysts release a barb that pierces the prey's skin and injects a venom. The venom paralyzes the prey, making it easy for the coral polyp to ingest.
- Corals use their nematocysts to capture a variety of prey, including zooplankton, small fish, and crustaceans. Corals also use their nematocysts to defend themselves from predators.
- Coral reefs form in warm, shallow waters that are rich in sunlight and nutrients. Coral reefs are found in many parts of the world, but they are most common in the tropics.
- Some of the largest and most famous coral reefs in the world include the Great Barrier Reef in Australia, the Mesoamerican Barrier Reef System in Central America, and the Raja Ampat Islands in Indonesia.
- Coral reefs are important ecosystems that provide habitat for a wide variety of marine life. They also protect coastlines from erosion and storms. However, coral reefs are threatened by climate change, pollution, and overfishing.

Source: ForumIAS

#### Q.39) Consider the following statements:

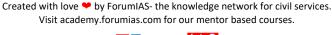
- 1. The Air Quality Index (AQI) is a measure of the concentration of all pollutants in the air.
- 2. "Triple dip" La Niña has been one of the factors behind rising air pollution in Mumbai.

#### 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

#### Answer: B

- Statement 1 is incorrect. The Air Quality Index (AQI) is a measure of the concentration of six common air pollutants: ozone, particulate matter (PM2.5 and PM10), carbon monoxide (CO), sulfur dioxide (SO2), and nitrogen dioxide (NO2). It is not a measure of the concentration of all pollutants in the air.
- Statement 2 is correct. La Niña is a climate pattern that occurs when sea surface temperatures in the central and eastern Pacific Ocean are cooler than average. Triple dip La Niña is a rare and extreme event in which La Niña conditions persist for three consecutive winters.
- Triple dip La Niña can have a number of effects on weather patterns around the world, including changes in wind patterns. In Mumbai, triple dip La Niña has led to weaker winds, which have made it difficult for pollutants to disperse. This had led to hardly any wind reversal from across the Arabian Sea and has contributed to the rising air pollution levels in the city.
- Other factors that have contributed to the rising air pollution in Mumbai include increased vehicular emissions, construction dust, and industrial emissions. However, triple dip La Niña has played a role in trapping pollutants in the air and making the problem worse.





#### Q.40) Which of the following are considered as Dust Suppressants?

- 1. Water
- 2. Vacuum Cleaner
- 3. Calcium chloride
- 4. Asphalt
- 5. Paint

#### Select the correct code given below:

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

#### Answer: B

- Dust suppressants are substances or techniques used to reduce the amount of dust in the air. Dust can be a nuisance, but it can also be a health hazard, especially for people with respiratory conditions. Dust can also damage equipment and reduce visibility.
- There are two main types of dust suppressants: physical and chemical. Physical dust suppressants work by adding weight or moisture to dust particles, making them less likely to become airborne. Examples of physical dust suppressants include: Water, Mulch, Geotextiles, etc.
- Chemical dust suppressants work by binding dust particles together or changing their surface properties. Examples of chemical dust suppressants include: Calcium chloride, Magnesium chloride, Lignosulfonates, Asphalt emulsions, Polymers.
- Dust suppressants can be applied in a variety of ways, including: Spraying, Watering, Spreading, Mixing with soil or other materials.
- In Delhi, dust suppressant powder would be mixed along with water and sprayed on roads to keep dust levels lower.

Source: ForumIAS

#### Q.41) Consider the following statements:

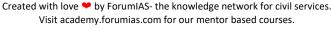
- 1. The Lemru Elephant Reserve is a protected area located in Tamil Nadu.
- 2. The Hasdeo River is the largest tributary of the Mahanadi River.

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

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

#### Answer: B

- **Statement 1** is incorrect. The Lemru Elephant Reserve is a protected area located in the Korba district of Chhattisgarh, India. It is one of the largest elephant reserves in the country, covering an area of 1,995 square kilometers. Its objective is to provide elephants with a permanent habitat, reduce property damage, and mitigate human-elephant conflicts. The area under the reserve is part of the Hasdeo Aranya forests.
- **Statement 2** is correct. The Hasdeo River is the largest tributary of the Mahanadi River. It originates in the Amarkantak plateau in Chhattisgarh state and flows for 333 kilometers before joining the Mahanadi River near Shiladehi (Birra). The Hasdeo River is





a major source of water for irrigation, industrial use, and domestic consumption in the region. Seonath River is the longest tributary of the Mahanadi River.

Source: ForumIAS

### Q.42) Consider the following statements with respect to environmental, social, and governance (ESG) framework:

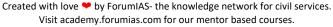
- 1. ESG investment strategies guarantee higher financial returns compared to traditional investment approaches.
- 2. ESG criteria are used by investors, stakeholders, and organizations to evaluate a company's commitment to sustainable and responsible business practices.
- 3. ESG investing only applies to public equity investments, not other asset classes such as private equity, fixed income or real estate.

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

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

#### Answer: B

- **Statements 1 and 3** are incorrect. ESG (Environmental, Social, and Governance) investment strategies do not guarantee higher financial returns compared to traditional investment approaches. ESG investments are made with the primary goal of aligning one's portfolio with ethical and sustainable values, and they take into account not only financial factors but also environmental, social, and governance considerations.
- While some ESG investments may perform well financially, their returns are subject to the same market risks and fluctuations as traditional investments.
- ESG investing is a framework for evaluating how companies manage their environmental, social, and governance risks and opportunities. This framework can be applied to any type of investment, regardless of the asset class.
- **Statement 2** is correct. ESG criteria are used by investors, stakeholders, and organizations to evaluate a company's commitment to sustainable and responsible business practices.
- Environmental, social, and governance (ESG) criteria are a set of standards that companies can use to measure and manage their impact on the environment, society, and their own governance practices. ESG criteria are becoming increasingly important to investors, stakeholders, and organizations because they can help to identify companies that are making a positive impact on the world.





#### Q.43) With reference to Energy Transition, consider the following statements:

- 1. Energy Transition refers to the transformation of the energy sector from fossil-based systems of energy production and consumption to renewable energy sources.
- 2. India is the fourth-largest renewable energy producer in the world.

#### 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

#### Answer: C

- **Statements 1 and 2** are correct. Energy Transition refers to the transformation of the energy sector from fossil-based systems of energy production and consumption to renewable energy sources. It involves a shift in the energy mix to reduce the carbon emissions and other greenhouse gases.
- India is the world's third-largest consumer of electricity. India stands fourth globally in renewable energy installed capacity, fourth in wind power capacity, and fourth in solar power capacity.

Source: ForumIAS

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

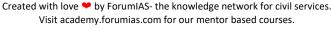
- 1. At present, India's renewable energy capacity is 131 gigawatts.
- 2. Green hydrogen is a clean fuel that does not produce any greenhouse gas emissions when burned.
- 3. Green Hydrogen is the only available sustainable hydrogen.

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

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

#### Answer: A

- **Statements 1 and 2** are correct. As of August 2023, India's renewable energy capacity was 131 gigawatts. Hence, to meet this 2030 green hydrogen goal, India needs to add a similar amount of renewable energy by 2030. This is on top of the commitment to add 500 gigawatts of renewable energy by 2030, which is part of the Paris Agreement.
- Green hydrogen is a clean fuel that does not produce any greenhouse gas emissions when burned. Green hydrogen is produced by splitting water into hydrogen and oxygen using renewable energy sources, such as solar and wind power. When green hydrogen is burned, it only produces water vapor as a byproduct.
- Statement 3 is incorrect. Green hydrogen is one type of sustainable hydrogen, but there are also blue and gray hydrogen.





#### Security, Defense & Related Aspects

#### Q.45) With reference to the naval exercise "MILAN" consider the following statements:

- 1. The exercise is focused on enhancing professional interaction between professional armies and gaining experience in multilateral large force operations on land.
- 2. The exercise originally aligned with India's 'Look East Policy'.

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

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

#### Answer: B

- Statement 1 is incorrect. Exercise MILAN is a naval exercise, not a land army exercise. It is focused on enhancing professional interaction between navies and gaining experience in multilateral large force operations at sea. Exercise MILAN is a biennial multilateral naval exercise hosted by the Indian Navy. The exercise was first held in 1995. MILAN is aimed at fostering cooperation and interoperability between the navies of participating countries. The exercise includes a variety of activities, such as maritime search and rescue, anti-piracy drills, communication exercises, gunnery exercises, anti-submarine warfare exercises, and fleet maneuvers. MILAN also provides an opportunity for participating countries to showcase their naval capabilities and to learn from each other's best practices.
- **Statement 2** is correct. The exercise originally aligned with India's 'Look East Policy'. It later expanded to include more countries as part of India's 'Act East Policy' and the Security and Growth for All in the Region (SAGAR) initiative.
- This expansion involved nations from both the western Indian Ocean Region (IOR) and the countries along the IOR coast.
- Exercise MILAN 2024 is likely to witness the largest-ever participation with invites being extended to over 50 countries. The exercise aligns with India's G20 Presidency and the theme "Vasudhaiva Kutumbakam" emphasizing global unity.

#### Source: ForumIAS

#### Q.46) Consider the following statements:

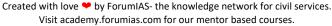
- 1. The Chetak Helicopter is a versatile, multipurpose and spacious helicopter.
- 2. The Cheetah helicopter is designed for long-range combat missions.

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

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

#### Answer: A

• **Statement 1** is correct. The Chetak Helicopter is a two-ton class helicopter. It is a versatile, multi role, multipurpose and spacious helicopter. It is designed for seven





seaters (two pilots and five passengers). It is manufactured by Hindustan Aeronautics Limited (HAL).

• **Statement 2** is incorrect. Cheetah is a five-seater helicopter. It is a high-performance helicopter designed for operation over a very wide range of weight, center of gravity and altitude conditions. It is primarily a utility helicopter that is primarily used for transportation, search and rescue, and surveillance missions. While it is capable of carrying weapons, it is not specifically designed for combat missions. It holds the world record in high altitude flying among all categories of Helicopters. It is manufactured by Hindustan Aeronautics Limited (HAL).

Source: ForumIAS

### Q.47) Consider the following statements with respect to the Indian Navy Vessel, INS Imphal:

- 1. It is the third ship to be launched under Project 15-B.
- 2. The ship is armed with supersonic Surface-to-Surface 'Brahmos' missiles and 'Barak-8' Medium Range Surface to Air Missiles.
- 3. It is propelled by a powerful Combined Gas and Gas Propulsion Plant (COGAG).

#### 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

#### Answer: D

- **Statements 1, 2 and 3** are correct. INS Imphal is the third ship to be launched under Project 15-B. The ship is armed with supersonic Surface-to-Surface 'Brahmos' missiles and 'Barak-8' Medium Range Surface to Air Missiles. The ship has indigenous content of around 75%. It is designed by Indian Navy's Warship Design Bureau and built by Mazagaon Dock Shipbuilders Limited (MDL).
- The ship is armed with supersonic Surface-to-Surface 'Brahmos' missiles and 'Barak-8' Medium Range Surface to Air Missiles. It can accommodate a crew of 312 persons. It has an endurance of 4,000 nautical miles and can carry out a typical 42-day mission.
- It is propelled by a powerful Combined Gas and Gas Propulsion Plant (COGAG), consisting of four reversible gas turbines, which enables Imphal to achieve a speed of over 30 knots (approximately 55 kilometers per hour).

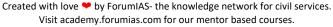
Source: ForumIAS

#### Q.48) Which one of the following is the objective of launching Operation Chakra-II?

- a) To fight against transnationally organized cyber-enabled financial crimes in India.
- b) Harnessing technology to combat UAV (Unmanned Aerial Vehicle) attacks.
- c) To facilitate cross-border Central Bank Digital Currency (CBDC) transactions.
- d) To offer extended medical services to individuals affected by Tuberculosis.

#### Answer: A

 Operation Chakra-II is a crackdown on transnational organized cyber-enabled financial crimes launched by India's Central Bureau of Investigation (CBI). The operation aims to tackle organized cybercrime networks in India that are involved in online financial fraud





and cryptocurrency scams. For the operation, CBI has partnered with Microsoft and Amazon as well as with national and international agencies to combat and dismantle infrastructure of illegal call centers.

Source: ForumIAS

## Q.49) The Indian Army has installed its first vertical wind tunnel (VWT) at the Special Forces Training School (SFTS). Which of the following is/are the objective(s) of installing VWT?

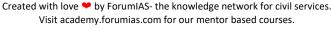
- 1. To train soldiers in combat free fall (CFF)
- 2. Increased operational readiness
- 3. Create Special Task Force (STF) for operations

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

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

#### Answer: A

- The Indian Army has installed its first vertical wind tunnel (VWT) at the Special Forces Training School (SFTS) at Bakloh in Himachal Pradesh.
- Some of the specific benefits of the VWT for the Indian Army are:
- Improved CFF skills: The VWT will allow soldiers to practice CFF skills in a safe and controlled environment, which will improve their overall performance.
- Increased operational readiness: The VWT will help the Army to be better prepared to carry out special operations.
- Reduced training costs: The VWT is a more cost-effective way to train soldiers in CFF than using traditional methods, such as jumping from airplanes.
- Enhanced safety: The VWT is a much safer way to train soldiers in CFF than traditional methods.





#### **Answer Key**

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