Forum AS

10 PM Current Affairs Quiz Compilation

April, 2022

Environment

Q.1) Consider the following statements regarding United Nations Environment Programme (UNEP):

- 1. It is one of the six main organs of the UN.
- 2. It publishes the Emission Gap Report.

Which of the statements given above is/are incorrect?

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

Answer: A Explanation:

Statement 1 is incorrect: It is not a main organ of the UN. UNEP is a leading global environmental authority established on 5th June 1972. Functions: It sets the global environmental agenda, promotes sustainable development within the United Nations system, and serves as an authoritative advocate for global environment protection.

Statement 2 is correct: Major Reports: Emission Gap Report, Adaptation Gap Report, Global Environment Outlook, Frontiers, Invest into Healthy Planet.

Q.2) Consider the following statements regarding World Anti-doping Agency (WADA):

- 1. Its foundation was initiated by the International Olympics Committee.
- 2. It is an intergovernmental body.

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: A Explanation:

Statement 1 is correct: Its foundation was initiated by the IOC to promote, coordinate and monitor the fight against drugs in sports.

Statement 2 is incorrect: It was established in 1999 as an international independent agency composed and funded equally by the sport movement and governments of the world.

Its key activities include scientific research, education, development of anti-doping capacities, and monitoring of the World Anti-Doping Code – the document harmonizing anti-doping policies in all sports and all countries.



Q.3) With reference to the offence of rape in Indian context, consider the following statements:

- 1. The age of consent in India is 16 years.
- 2. Marital rape can be regarded as a ground for divorce.
- 3. Sexual intercourse by husband upon his wife during separation, without her consent, is criminalised via Indian Penal Code.

Which of the statements given above is/ are correct?

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

Answer: C Explanation:

Statement 1 is incorrect: The age of consent in India is 18 years. Sexual intercourse with a girl below 18 years of age, even if with her consent, falls within the statutory definition of rape.

Statement 2 is correct: Marital rape is considered as "Cruelty" and is regarded as a ground for divorce. Even though it is not criminalised in India.

Statement 3 is correct: Section 376 B of IPC criminalises Sexual intercourse by husband upon his wife during separation, without her consent.

Q.4) What is Operation Upalabdh

- a) A scheme by National Legal Services Authority of India (NLSA) to provide free legal-aid to vulnerable citizens.
- b) A scheme by the Ministry of External Affairs to provide timely visas to outbound workers to Gulf countries.
- c) A scheme by the Ministry of Rural Development to provide credit to self-help groups (SHGs) working in the secondary agriculture sector.
- d) A drive undertaken by Railway Protection Force (RPF) to curb the activities of touts substantially and make railway tickets available to the common man.

Answer: D

Q.5) Which of the following regions of the continents experience the Mediterranean climate?

- a) Northern tips of Australia
- b) Southern tips of Australia
- c) Northern tips of Africa
- d) Southern tips of Africa

Answer: B

Explanation: PYQ (UPSC CAPF 2018)

Places around the southern tip of Australia like Perth and Adelaide experience a Mediterranean type of climate. This type of climate is characterized by hot, dry summers and cool, wet winters. It is found in the north-western and south western tips of Africa as well.





Schemes and Programs

Q.6) Santosh Hegde committee was recently seen in news. The committee is related to which of the following?

- a) Promotion of Electric vehicle in India
- b) Regarding the application of Armed Forces Special Powers Act
- c) Resolving the dispute between Punjab and Haryana over Chandigarh
- d) Reforms in defence sector

Answer: B

In 2013, the Supreme Court appointed Hegde Commission. The commission found that all seven deaths in the six cases it investigated were extrajudicial executions. The commission also said that the AFSPA was widely abused by security forces in Manipur.

Source: The Hindu

Q.7) With reference to **Near-field communication technology**, consider the following statements;

- 1. Only the NFC-enabled devices can communicate with each other and transfer information using this technology.
- 2. It is a long-range wireless connectivity technology.
- 3. It transmits data through electromagnetic radio fields.

Which of the statements given above is/are correct?

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

Answer: b

Statement 1 is correct: Only the NFC-enabled devices can communicate with each other and transfer information using this technology. Both devices must contain NFC chips, as transactions take place within a very short distance.

Statement 2 is incorrect: NFC is a short-range wireless connectivity technology. NFC-enabled devices must be either physically touching or within a few centimetres from each other for data transfer to occur.

Statement 3 is correct: NFC transmits data through electromagnetic radio fields, to enable communication between two devices.

Source: The Hindu



GEOGRAPHY

Q.8) Which of the following is/are correct benefits associated with Ground water?

- 1. It is more resilient to the effects of climate change than surface water.
- 2. Contaminants like iron, salinity, nitrate, and arsenic cannot reach and pollute ground water.

Select the correct code from the following options

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

Ans: A

Statement 1 is correct. Groundwater plays an important role in water and sanitation systems, agriculture, industry, ecosystems, and climate change adaptation, as it:

- 1. Reduces the risk of temporary water shortages especially in arid and semiarid regions.
- 2. Has high storage capacity.
- 3. Is more resilient to the effects of climate change than surface water.

Statement 2 is incorrect. **Quality of groundwater** is a concern. Fluoride, iron, salinity, nitrate, and arsenic contamination are major problems.

Q.9) Which of the following harmful impact/s will occur due to noise pollution?

- 1. Sleeping Disorders
- 2. Development of cardiovascular diseases
- 3. Premature death

Select the correct answer from the codes given below:

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

Answer: D

Harmful impacts of noise pollution include,

Hearing Loss: Experts believe that regular exposure to over 85 dB for an 8-hour day or longer can cause permanent hearing damage.

Sleeping Disorders: Loud noise can hamper sleeping patterns and may lead to irritation and uncomfortable situations. Sleeping disorders can further **disturb the body's circadian rhythm**.

Chronic Health Problems: Noise pollution is a risk factor for the development of cardiovascular and metabolic disorders such as elevated blood pressure, arterial hypertension, coronary heart disease and diabetes. A conservative estimate indicates that long-term exposure to environmental noise contributes to 48,000 new cases of ischemic heart disease and causes 12,000 premature deaths annually in Europe.

Productivity Loss: High levels of noise causes extreme discomfort to workers that adversely impacts their mind and reduces their productivity. This in turn enhances cost of production.

Source: The Hindu



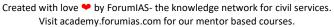
Q.10) With reference to India, the terms Jamatia, Noatia, Uchai, Mog pertains to,

- a) Dance forms of southern India
- b) Tribal peoples in North Eastern Region
- c) Musical instruments
- d) Pre-historic cave paintings

Answer: B

The tribal communities of the Tripura include Tripura/Tripuri, Riang, Jamatia, Noatia, Uchai, Chakma, Mog, Lushai, Kuki, Halam, Munda, Kaur, Orang, Santal, Bhil, Bhutia, Chaimal, Garo, Khasia, and Lepcha.

Source: Indian Express





Q.1) Arrange the following capital cities from north to south:

- 1. Kabul
- 2. Ashgabat
- 3. Nur Sultan
- 4. Bishkek

Select the correct answer from the codes given below:

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

Answer: D Explanation:



Q.2) With reference to Caspian Sea, consider the following statements:

- 1. Caspian Sea is the world's largest inland water body.
- 2. It is governed by the United Nation Convention on Law of the Seas (UNCLOS).
- 3. It is surrounded by Georgia, Iran, Kazakhstan, Russia, and Turkmenistan.

Select the correct answer from the codes given below:

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

Answer: A Explanation:

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Statement 1 is correct: Caspian Sea is the world's largest inland water body. **As an inland lake,** the Caspian Sea is home to numerous species of indigenous marine flora and fauna. Most of these are protected species to prevent ecological damage.

Statement 2 is incorrect: Caspian Sea is classified as a "**Lake".** Hence, is not governed by the UNCLOS. It is managed according to the **Caspian Sea Deal** concluded between its **five** bordering countries.

Statement 3 is incorrect: It is surrounded by Azerbaijan, Iran, Kazakhstan, Russia, and Turkmenistan.



Q.3) With reference to Competition Commission of India, (CCI) consider the following statements:

- 1. It is an executive body which aims to establish a robust competitive environment.
- 2. The appeals form the order of CCI lie with National Company Law Appellate Tribunal (NCLAT).

Select the correct answer from the codes given below:

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

Answer: B

Explanation:

Statement 1 is incorrect: Competition Commission of India (CCI) is a **statutory body** of the Government of India responsible for enforcing the **Competition Act, 2002**

Statement 2 is correct: Earlier, in accordance with the provisions of the act, the Competition Commission of India and the Competition Appellate Tribunal had been established. The



government replaced Competition Appellate Tribunal (COMPAT) with the **National Company** Law Appellate Tribunal (NCLAT) in 2017.

Q.4) With reference to India's biodiversity, Golden Birdwing, Orange oakleaf, Striped Tiger and Blue Mormon are:

- a) Birds
- b) Bats
- c) Butterflies
- d) Squirrels

Answer: C

Explanation: Golden Birdwing has been discovered as India's largest butterfly.

Orange Oakleaf is India's national butterfly.

Blue Mormon is Maharashtra's state butterfly.

Striped tiger is one of the common butterflies in India.

Q.5) With reference to "Mission Integrated Bio-refineries", consider the following statements:

- 1. It aims to accelerate Clean Energy solutions through Public -Private Alliances.
- 2. It falls under the ambit of Ministry of Environment, Forests and Climate Change.

Which of the statements given above is/are incorrect?

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

Answer: B

Explanation:

Statement 1 is correct: The aim of "Mission Integrated Bio-refineries" to accelerate Clean Energy solutions through Public-Private Alliances. unites a dynamic and results-oriented partnership of countries, international organizations, the corporate sector, academic institutions and civil society to accelerate innovation for renewable fuels, chemicals, and materials for a low-carbon future.

Statement 2 is incorrect: It falls under the ambit of Ministry of Science and Technology.

Q.6) With reference to Kaavi art, consider the following statements:

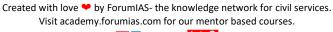
- 1. It is a kind of sculpture modelling.
- 2. This art was introduced by the Portuguese in India.

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**: It is a wall art found in Konkan region, especially in temples of Goa, parts of coastal Maharashtra and Karnataka.





• **Statement 2 is correct**: The art was introduced by the Portuguese who ruled Goa until 1961.

Q.7) Which of the following countries share border with Turkmenistan?

- 1. Afghanistan
- 2. Iran
- 3. Turkey

Select the correct answer from the codes given below:

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

Answer: a

Following countries border Turkmenistan:

• Iran, Afghanistan, Uzbekistan, Kazakhstan

Source: Article

Q.8) With reference to Armed Forces Special Powers Act (AFSPA), consider the following statements:

- 1. The Act was first promulgated by Linlithgow in response to the Quit India movement
- 2. Both commissioned and non-commissioned officers of the armed forces are allowed the usage of force under the Act, if the situation demands.

Which of the statements given above is/are correct?

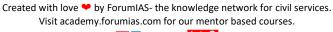
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: c

Both statements are correct.

- The Act was first promulgated by Linlithgow in 1942 in response to the Quit India Movement.
- Any commissioned officer, warrant officer, non-commissioned officer or any other person of equivalent rank in the armed forces can for the maintenance of public order 'fire upon or otherwise use force' after giving such due warning as he may consider necessary.

Source: Article





Q.9) With reference to **diamonds**, consider the following statements:

- 1. Madhya Pradesh, Andhra Pradesh and Chhattisgarh are the major diamond Reserves in India
- 2. South Africa and Congo has the world's largest diamond reserves.

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: A

Statement 1 is correct: Diamond occurrences are reported since prehistoric times in the country. Presently, diamond fields of India are grouped into four regions:

- 1) South Indian tract of Andhra Pradesh, comprising parts of Anantapur, Kadapa, Guntur, Krishna, Mahabubnagar and Kurnool districts;
- 2) Central Indian tract of Madhya Pradesh, comprising Panna belt;
- 3) Behradin-Kodawali area in Raipur district and Tokapal, Dugapal, etc. areas in Bastar district of Chhattisgarh; and
- 4) Eastern Indian tract mostly of Odisha, lying between Mahanadi and Godavari valleys.

Statement 2 is incorrect: The world reserves of industrial diamond are about 1,200 million carats located mainly in Russia (54%), Congo (Kinshasa) (12.5%), Australia (10%) Botswana (7.5%) and South Africa (6%).

Source: PIB

Q.10) With reference to polar regions, consider the following statements:

- 1. Polar regions are less sensitive to climate change in comparison to Equitorial regions.
- 2. In the Arctic, Sea ice reaches its maximum extent around March and shrinks to its minimum extent in September.

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: Polar sea ice reflects 80% of the sunlight that strikes its surface, thus keeping the polar regions cool. Once the ice melts in the summer, the dark surface of the ocean is exposed, and it absorbs 90% of the sunlight that falls on it.

Hence, small temperature changes at the poles can lead to greater warming over time, making polar regions extremely sensitive to climate change in comparison to Equitorial region.

Statement 2 is correct: In the Arctic, Sea ice reaches its maximum extent around March after growing through the colder months and shrinks to its minimum extent in September after melting through the warmer months. In the Southern Hemisphere, Antarctic sea ice follows an opposite cycle.

Source: The Hindu



Indian Economy

Q.1) With reference to Digital Banking consider the following statements:

- 1. It is the digitization of all the traditional banking activities and programs services.
- 2. At present, India has no 100% digital bank.

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 Explanation:

Statement 1 is correct: It is the digitization (or moving online) of all the traditional banking activities and programs services that were historically only available to customers when physically inside of a bank branch. This includes activities like Money Deposits, Withdrawals, and Transfers, Checking/Saving Account Management, Applying for Financial Products, Loan Management, Bill Pay, Account Services.

Statement 2 is correct: That's because the **Reserve Bank of India** (**RBI**) **does not allow banks to be 100% digital yet** (though some foreign banks offer digital-only products through their local units.) The RBI remains unwavering in prioritizing banks' physical presence and has spoken about the need for digital banking service providers to have some physical presence as well.

Q.2) With reference to Plastic Waste Management in India, consider the following statements:

- 1. India has a pledge to phase out Single Use Plastics (SUPs) by 2025.
- 2. The Plastic Waste Management Rules, 2022, provide for classification of plastics in four categories.
- 3. The rules also provide for Extended Producer Responsibility (EPR) for plastic packaging.

Which of the statements given above is/are correct?

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

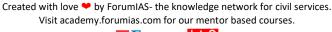
Answer: C Explanation:

Statement 1 is incorrect: India has a pledge to phase out Single Use Plastics (SUPs) by **2022. Statement 2 is correct:** The Plastic Waste Management Rules, 2022, provide for the classification of plastics into **four categories.**

Category 1: Rigid plastic packaging will be included under this category.

Category 2: Flexible plastic packaging of single layer or multilayer, plastic sheets and covers made of plastic sheet, carry bags, plastic sachet or pouches will be included under this category.

Category 3: Multi-layered plastic packaging (at least one layer of plastic and at least one layer of material other than plastic) will be included under this category.





Category 4: Plastic sheet or like used for packaging as well as carry bags made of compostable plastics fall under this category.

Statement 3 is correct: The term **Extended Procedure Responsibility** means the responsibility of a producer for the environmentally sound management of the product until the end of its life.

Q.3) With reference to Weapons of Mass Destruction, consider the following statements:

- 1. The Biological Weapons Convention was the first multilateral disarmament treaty banning an entire category of Weapons of Mass Destruction (WMD).
- 2. Nuclear weapons do not fall under the definition of Weapons of Mass Destruction (WMD) and are considered a separate category.

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: A

WMD is a weapon with the **capacity to inflict death and destruction on such a massive scale** and so indiscriminately that its very presence in the hands of a hostile power can be considered a grievous threat.

Statement 1 is correct: The Biological Weapons Convention effectively prohibits the development, production, acquisition, transfer, stockpiling and use of biological and toxin weapons. It was the first multilateral disarmament treaty banning an entire category of Weapons of Mass Destruction (WMD).

Statement 2 is incorrect: In 1977, the General Assembly adopted a definition of WMD as: ".. atomic explosive weapons, radioactive material weapons, lethal chemical and biological weapons, and any weapons developed in the future which might have characteristics comparable in destructive effect to those of the atomic bomb or other weapons mentioned above."

Q.4) Consider the following pairs:

Nuclear-Weapon-Free Zone

Treaty

| 1. Africa | Treaty of Tlatelolco |
|--------------------------------|----------------------|
| 2. South-east Asia | Treaty of Bangkok |
| 3. South Pacific | Treaty of Rarotonga |
| 4. Latin America and Caribbean | Treaty of Pelindaba |

Which of the pairs given above are correctly matched?

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

Answer: B

Explanation: The following treaties form the basis for the existing NWFZs:

Treaty of Tlatelolco — Treaty for the Prohibition of Nuclear Weapons in Latin America and the Caribbean

Treaty of Rarotonga — South Pacific Nuclear Free Zone Treaty

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Treaty of Bangkok — Treaty on the Southeast Asia Nuclear Weapon-Free Zone Treaty of Pelindaba — African Nuclear-Weapon-Free Zone Treaty Treaty on a Nuclear-Weapon-Free Zone in Central Asia

Q.5) Which of the following organizations released the Air Quality Database 2022:

- a) World Bank
- b) IQ Air
- c) World Meteorological Organization
- d) World Health Organization

Answer: D

Explanation: Ahead of World Health Day (7th April), the World Health Organisation (WHO) has released Air Quality Database 2022, which shows that almost the entire global population (99%) breathes air that exceeds WHO's air quality limits.

The WHO for the first time has taken ground measurements of annual mean concentrations of nitrogen dioxide (NO2). It also includes measurements of Particulate Matter with diameters equal or smaller than 10 µm (PM10) or 2.5 µm (PM2.5).

The findings have prompted WHO to highlight the importance of curbing fossil fuel use and taking other tangible steps to reduce air pollution levels. Earlier, in the 2021 World Air Quality Report released by IQAir (a Swiss group), India was home to 11 of the 15 most polluted cities in Central and South Asia in 2021.

Q.6) With reference to **Denotified Nomadic Tribes (DNTs)**, consider the following statements:

- 1. All nomadic tribes are not DNTs, but all DNTs are nomadic tribes.
- 2. Liberhan Commission is constituted to identify DNTs communities and prepare state-wise lists of different castes of DNTs.
- 3. Vimukti Diwas or Liberation Day is celebrated among DNTs.

Which of the statements given above is/are correct?

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

Answer: C

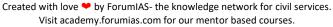
Statement 1 is correct: The nomadic tribes maintain constant geographical mobility while seminomads are those who are on the move but return to fixed habitations once a year, mainly for occupational reasons.

All nomadic tribes are not DNTs, but all DNTs are nomadic tribes. There are nearly 1,500 nomadic and semi-nomadic tribes and 198 denotified tribes, comprising 15 crore Indians, according to the Renke Commission (2008).

Statement 2 is incorrect: The Government constituted Renke Commission & Idate Commissions for DNTs in 2005 and 2015 to identify these communities and prepare state-wise lists of different castes of DNTs.

Statement 3 is correct: After decades of facing horrors of Criminal Tribes Act, 1871, they were denotified by the Government of independent India on August 31, 1952. Every year this day is celebrated as Vimukti Diwas or Liberation Day by DNTs across the country.

Source: TOI





Q.7) Solu Corridor was sometimes seen in news. The corridor is related to which of the following?

- a) A newly built IT corridor in North Eastern India.
- b) A dedicated corridor for faster goods transfer built by India in Bangladesh.
- c) A dedicated power transmission line to bring electricity to remote districts in northeastern Nepal
- d) A newly built pilot project under PM Gati Shakti which is located in Mumbai Bengaluru Industrial corridor.

Answer: C

Recently, The Indian side handed over the Solu Corridor, a 90-km, 132 kV power transmission line built for Rs 200 crore under an Indian line of credit.

The line will help bring electricity to several remote districts in northeastern Nepal by connecting them to the country's national grid.

Source: The Hindu

Q.8) Which of the following is/are migratory animal/animals found in India?

- 1. Asian Elephant
- 2. Great Indian Bustard
- 3. Urial
- 4. Oceanic white-tip shark

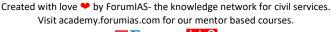
Select the correct answer using the codes given below:

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

Answer: d

With new additions to the wildlife list put out by the Convention on the Conservation of Migratory Species (CMS), scientists say that the total number of migratory faunas from India comes to 457 species. Birds comprise 83% (380 species) of this figure.

- The Zoological Survey of India (ZSI) had for the first time compiled the list of migratory species of India under the CMS before the Conference of Parties (COP 13) held in Gujarat recently.
- It had put the number at 451. Six species were added later. They are the Asian elephant, great Indian bustard, Bengal florican, oceanic white-tip shark, urial and smooth hammerhead shark.
- "We had compiled a list of the 451 species of migratory animals found in India. With the addition of new species to the CMS Appendices, the number is now 457," said Kailash Chandra, ZSI director.
- Globally, more than 650 species are listed under the CMS appendices and India, with over 450 species, plays a very important role in their conservation.





Q.9) With reference to the Antarctic Treaty, consider the following statements:

- 1. One of its objectives is to demilitarize the region.
- 2. All the signatories of the treaty have voting rights.
- 3. India is part of the treaty and the Antarctic Treaty System (ATS).

Which of the statements given above is/are correct?

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

Answer: c

- **Statement 1 is correct**: One of its key objectives is to demilitarize Antarctica and to establish a zone free of nuclear tests and disposal of radioactive waste.
- **Statement 2 is incorrect**: There are 54 signatories to the treaty and 29 have consultative status, which gives them voting rights.
- **Statement 3 is correct**: The treaty parties meet each year at the Antarctic Treaty Consultative meeting. Over the years, they have adopted over 300 recommendations and negotiated several international agreements. These, along with the original treaty, provide the rules for governing the activities in Antarctic. Collectively they are known as Antarctic Treaty System (ATS). India joined the treaty system in 1983.

Source: Article

Q.10) With reference to Nitrogen Dioxide (NO₂) and oxides of Nitrogen (NO_x), consider the following statements:

- 1. NO_2 along with other NO_x reacts with other chemicals in the air to form both particulate matter and ozone.
- 2. NO_x in the atmosphere contributes to nutrient pollution in coastal waters.

Which of the statements given above is/are incorrect?

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

Answer: d

Both statements are correct.

- NO2 along with other NOx reacts with other chemicals in the air to form both particulate matter and ozone. Both of these are also harmful to the respiratory system.
- NOx in the atmosphere contributes to nutrient pollution in coastal waters.

Source: Article



Art and Culture

Q.1) With reference to the Kalinga style of Temple Architecture, consider the following statements:

- 1. The style consists of three distinct types of Deula: Rekha Deula, Pidha Deula and Khakhara Deula.
- 2. This style broadly comes under the Dravida style of temple architecture.

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: A Explanation:

Statement 1 is correct: The style consists of three distinct types of temples: Rekha Deula, Pidha Deula and Khakhara Deula. In Kalinga Architecture, basically a temple is made in two parts, a tower and a hall. The tower is called deula and the hall is called jagmohan.

Statement 2 is incorrect: The temple architecture of Odisha corresponds to altogether a different category for their unique representations called Kalinga style of temple architecture. **This style broadly comes under the Nagara style.**

Q.2) With reference to the definition Startups in India, consider the following statements:

- 1. An entity that is headquartered in India, which was opened less than 7 years ago.
- 2. It has an annual turnover less than ₹100 crore.

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

Explanation:

Statement 1 is incorrect: A startup defined as an entity that is headquartered in India, which was opened less than 10 years ago.

Statement 2 is correct: It has an annual turnover less than ₹100 crore.



Q.3) With reference to Agricultural exports from India, consider the following statements:

- 1. Exports of agricultural products (including marine and plantation products) for the year 2021-22 were the highest level ever achieved for agriculture exports.
- 2. The highest agricultural commodities exported from India are Rice and Wheat.
- 3. India has captured nearly 50% of the world market for rice.

Select the correct code from the options given below:

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

Answer: B

Explanation:

Statement 1 is correct: Exports of agricultural products (including marine and plantation products) for the year 2021-22 have crossed USD 50 billion, highest level ever achieved for agriculture exports

Statement 2 is incorrect: Highest ever exports have been achieved for staples like rice (USD 9.65 billion), wheat (USD 2.19 billion), sugar (USD (4.6 billion) and other cereals (USD 1.08 billion). Exports of marine products, at USD 7.71 billion, are also the highest ever. Spices exports have touched USD 4 billion for the second year in a row.

Hence, Rice > Marine products > Sugar > Spices.

Statement 3 is correct: India has captured nearly 50% of the world market for rice.

For more information: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1814057

Q.4) Consider the following statements regarding Atal Innovation Mission:

- 1. It aims to provide financial assistance in the form of loan or equity.
- 2. It is launched by the Department for Promotion of Industry and Internal Trade (DPIIT).

Which of the above statements is/are correct?

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

Answer: D

Explanation:

Statement 1 is incorrect: AIM is the Government of India's flagship initiative to promote a culture of innovation and entrepreneurship in the country.

Objectives: To develop new programmes and policies for fostering innovation in different sectors of the economy; To provide platform and collaboration opportunities for different stakeholders; To create awareness and create an umbrella structure to oversee the innovation ecosystem of the country.

Statement 2 is incorrect: It is launched by NITI Aayog.



Q.5) With reference to Unlawful Activities Prevention Act (UAPA), consider the following statements:

- 1. The act is applicable even if the offence is committed outside India.
- 2. Union government has the power to designate an individual or an organization as a terrorist.

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

Explanation: It was enacted to provide for more effective prevention of certain unlawful activities of individuals and associations, and for dealing with terrorist activities.

Statement 1 is correct: Both Indian and foreign nationals can be charged. It is applicable even if the offence is committed outside India.

Statement 2 is correct: Union government may designate an individual or an organisation as a terrorist organisation if it: commits or participates in acts of terrorism, prepares for terrorism, promotes terrorism, or is otherwise involved in terrorism.

Q.6) With reference to **Antibody**, consider the following statements:

- 1. Antibodies recognize and attack antigens in order to remove them from the body.
- 2. IgM is the only isotype that can pass through the placenta.

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: a

Statement 1 is correct: Antibody, also called immunoglobulin, is a protective protein produced by the immune system in response to the presence of a foreign substance, called an antigen. A wide range of substances are regarded by the body as antigens, including disease-causing organisms and toxic materials.

Statement 2 is incorrect: IgG is the main antibody in blood and it has a powerful ability to bind to bacteria and toxins, and thus it takes on an important role in the biological defense system. IgG is the only isotype that can pass through the placenta, and IgG transferred from the mother's body protects a newborn.

Source: Indian Express



Q.7) With reference to RuPay card, consider the following statements:

- 1. In RuPay cards all the processing will happen within the country.
- 2. So far, Rupay cards is available within India.

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: a

Statement 1 is correct: When it comes to the RuPay cards transactions, all the processing happens within the country. This results in a lower cost of settlement and clearing for the transactions made using a RuPay debit card.

Statement 2 is incorrect: Recently India launched the RuPay card in Nepal. With this, the domestic variant of the RuPay card will now work at 1,400 point-of-sale machines in Nepal, and the move is expected to facilitate bilateral tourist flows.

With this, Nepal is the fourth country, after Bhutan, Singapore and the UAE, where RuPay has been launched.

Source: The Hindu

Q.8) With reference to the Purchasing Managers' Index (PMI), consider the following statements:

- 1. It is a survey based economic indicator that evaluates the perception of purchasing managers at different businesses.
- 2. A figure above 50 denotes expansion in business activity.

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

Both statements are correct.

- The purchasing managers' index (PMI) is an economic indicator that surveys purchasing managers at businesses that make up a given sector. The most common PMI surveys are the manufacturing PMI and the services PMI.
- The PMI consists of several different surveys that are compiled into a single numerical result depending on one of several possible answers to each question.
- The most **common elements** include: New orders, Factory output, Employment, Suppliers' delivery times and Stocks of purchases; while the most **common answers** include: Improvement, No change and Deterioration.
- A reading **above 50 suggests an improvement/expansion**, while a reading below 50 suggests deterioration/contraction.



Q.9) With reference to the Central bureau of Investigation (CBI), consider the following statements:

- 1. CBI is not required to obtain the consent of the state government concerned before beginning to investigate a crime in a state.
- 2. The establishment of the CBI was recommended by the Santhanam Committee on Prevention of Corruption.

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**: CBI must mandatorily obtain the consent of the state government concerned before beginning to investigate a crime in a state.
- **Statement 2 is correct**: The CBI came into existence on 1 April, 1963, through a Government of India resolution. The establishment of the CBI was recommended by the Santhanam Committee on Prevention of Corruption (1962-64).

Source: Article

Q.10) With reference to Lingaraj Temple, consider the following statements:

- 1. It signifies the syncretisation of Shaivism and Vaishnavism sects in Odisha.
- 2. The temple is included in the UNESCO World Heritage list.

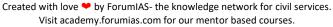
Which of the statements given above is/are correct?

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

Answer: a

- **Statement 1 is correct:** The temple signifies the syncretisation (amalgamation) of Shaivism and Vaishnavism sects in Odisha.
- Statement 2 is incorrect: It is not yet included in the UNESCO World Heritage list.

Source: Article





PRELIMS

Q.1) With reference to Human Rights Council (HRC), consider the following statements:

- 1. If one third of the Member States requests so, the Council can hold a special session to address human rights violations and emergencies.
- 2. It was created via a UN Security Council resolution.

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: a

- **Statement 1 is correct**: If one third of the Member States request so, the Council can hold a special session to address human rights violations and emergencies.
- **Statement 2 is incorrect**: The Council was created by the United Nations General Assembly in 2006 by a resolution.

Source: Article

Q.2) With reference to ChildLine, consider the following statements:

- 1. It has functioned as a public-private partnership (PPP) between the government and civil society organisations.
- 2. Under Mission Vatsalya, the ChildLine will be manned by the Home Affairs Ministry.

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

Both statements are correct.

- **Statement 1 is correct**: It has functioned as a public-private partnership (PPP) between the government and civil society organisations to provide a first-responder safety net, and kick-start the process of rescue and rehabilitation of children.
- **Statement 2 is correct**: ChildLine (1098), the 24-hour toll-free helpline for children in distress, will be manned by the Home Affairs Ministry under Mission Vatsalya, because of the need to 'preserve data sensitivity'.

Source: Article



Q.3) With reference to the sixth Schedule, consider the following statements:

- 1. The Governor may, by public notification, increase or diminish the area of any autonomous district.
- 2. Any amendment to the schedule requires the parliamentary majority as stated under article 368 of the constitution.

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: a

- Statement 1 is correct. The Governor may, by public notification create a new autonomous district, increase the area of any autonomous district, diminish the area of any autonomous district, unite two or more autonomous districts or parts thereof so as to form one autonomous district.
 - o Provided that no order shall be made by the Governor except after consideration of the **report of a Commission** to inquire into and report on the administration of autonomous districts and autonomous regions.
- Statement 2 is incorrect. Parliament may from time to time by law amend by way of addition, variation or repeal any of the provisions of the Sixth Schedule. No such law is deemed to be an amendment of the Constitution for the purposes of article 368, therefore does not require the two-thirds majority of houses in Parliament.

Q.4) The term 'Ganoderma lucidum', sometimes found in news is related to which of the following

- a) It is the process of activating earth worms in the soil to create water vapour condensation in Natural farming.
- b) A bird species named in honour of the efforts of the Bugun community of Singchung village in Arunachal Pradesh.
- c) It is a medicinal mushroom in use for centuries to heal diseases like diabetes, cancer, and others.
- d) A new golden yellow butterfly discovered in Dzongu in North Sikkim.

Answer: C

Whapasa: It is the process of activating earthworms in the soil to create water vapour condensation in Natural farming.

Bugun Liocichla: A bird species named in honour of the efforts of the Bugun community of Singchung village in Arunachal Pradesh.

Ganoderma lucidum: It is a medicinal mushroom in use for centuries to heal diseases like diabetes, cancer, and others. It is considered one of the most important medicinal mushrooms in the world since its chemical constituents exhibit numerous medicinal properties.

Chocolate-bordered Flitter: A new a golden yellow butterfly discovered in Dzongu in North Sikkim.

Source: DTE



Q.5) Which of the following benefits will occur in 'Tour of Duty' model?

- 1. Reduction in pay and gratuity payouts for the government.
- 2. Channelise the youth energy into positive utilisation of their potential.
- 3. Resurgence of nationalism and patriotism.

Select the correct answer from the codes given below.

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

Answer: D

Tour of Duty' model of recruitment would let young individuals voluntarily serve for a temporary period of three years. Recently, the Department of Military Affairs has finalised a radical proposal for future recruitment to the armed forces. The Army will be the first to try out the concept –the 'Tour of Duty' model.

The benefits of this model are,

- The cost of a three-year service per officer will be a fraction of the cost incurred on Short Service Commission (SSC) officers. Hence, there are immense financial benefits to the organisation due to a reduction in pay and gratuity payouts.
- For citizens, It will help to "channelise the youth energy into positive utilisation of their potential"
- Advocates of this scheme also cite "resurgence of nationalism and patriotism", and reduction in unemployment rate in our country.
- The entire nation will benefit from "trained, disciplined, confident, diligent and committed" young men or women who have done the three-year service.

Source: TOI

Q.6) Consider the following statements regarding Geostationary satellite orbit:

- 1. The satellite in this orbit remains stationary from the Earth.
- 2. This is usually used in Communication Satellites.
- 3. The International Space Station is in this orbit.

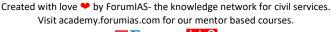
Select the correct code from the options given below:

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

Answer: B

Statement 1 is correct: Geostationary orbit lies on the same plane as the equator. The satellite in this orbit remains stationary from the Earth.

Statement 2 is correct: This is usually used in Communication Satellites and weather satellites. **Statement 3 is incorrect:** ISS is in the low earth orbit.





Q.7) Consider the following statements regarding Geosynchronous Satellite Launch Vehicle (GSLV) rocket:

- 1. It is a three-stage launch system.
- 2. Like Polar Satellite Launch Vehicle (PSLV), it also uses cryogenic engine in the third stage.
- 3. Chandrayaan was launched using GSLV rocket.
- 4. GSLV rockets using the Russian Cryogenic Stage (CS) are designated as GSLV Mark III.

Select the correct code from the options given below:

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

Answer A

Statement 1 is correct: GSLV is a three-stage launch system, with solid first stage, liquid second stage, and cryogenic third stage.

Statement 2 is incorrect: PSLV is a 4-stage rocket with so<mark>lid first stage, liquid third stage, solid third stage, liquid fourth stage.</mark>

Statement 3 is incorrect: Chandrayaan was launched using PSLV rocket. Chandrayaan 2 was launched using a GSLV rocket.

Statement 4 is correct: GSLV rockets using the Russian Cryogenic Stage (CS) are designated as GSLV Mark I. While versions using the indigenous Cryogenic Upper Stage (CUS) are designated the GSLV Mark II.

Q.8) With reference to the defence expenditure of India, consider the following statements:

- 1. Between 2015-19, India was the second largest importer of major arms, accounting for 20% of the global imports.
- 2. India was the second largest defence spender in absolute terms in 2019.

Which of the statements mentioned above is/are correct:

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

Answer: D Explanation:

Statement 1 is incorrect: According to the Stockholm International Peace Research Institute, between 2015-19, India was the **second largest importer of major arms**, after **Saudi Arabia**, accounting for 9% of global imports.

Statement 2 is incorrect: According to the Stockholm International Peace Research Institute (SIPRI), India was the third largest defence spender in absolute terms in 2019 (after USA and China). USA spent more than India on defence, both in absolute terms, and as a percentage of GDP. China spent lower in terms of percentage of GDP, but its absolute expenditure on defence was 3.7 times that of India.



Q.9) Consider the following statements:

- 1. Aadhaar can be used as proof of citizenship and domicile.
- 2. Once issued, the Aadhaar number cannot be deactivated or omitted by the issuing authority.

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

Explanation: Source: PYQ, UPSC CSE 2018

Statement 1 is incorrect: Section 9 of Aadhar Act, 2016 states "The Aadhaar number or the authentication thereof shall not, by itself, confer any right of, or be proof of, citizenship or domicile in respect of an Aadhaar number holder."

Statement 2 is incorrect: The Aadhar Act regulations states that Aadhar number can be deactivated or omitted by the UIDAI, the issuing authority.

Q.10) Consider the following statements:

- 1. Aadhaar metadata cannot be stored for more than three months.
- 2. State cannot enter into any contract with private corporations for sharing of Aadhaar data.
- 3. Aadhaar is mandatory for obtaining insurance products.
- 4. Aadhaar is mandatory for getting benefits funded out of the Consolidated Fund of India.

Which of the statements given above is/are correct?

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

Answer: B

Explanation: Source: PYQ, UPSC CSE 2019

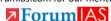
Statement 1 is incorrect: Supreme Court had ruled that Aadhaar metadata cannot be stored for **more than six months.**

Statement 2 is correct: The Supreme Court struck down part of section 57 which allowed providing private corporations to verify Aadhaar data as unconstitutional.

Statement 3 is incorrect: The same 2018 judgement also held making that Aadhaar mandatory for other services apart from welfare schemes as unconstitutional. Subsequently, IRDAI issued an advisory in January 2019 that clarified that **Aadhaar is not mandatory for obtaining insurance**.

Statement 4 is correct: The Supreme court in the Aadhaar verdict had defined the welfare schemes as those funded from the consolidated fund of India. And it upheld the validity of Section 7 of the Aadhaar Act which states that Central or State Governments can make possession of an Aadhaar number or Aadhaar authentication mandatory for receipt of subsidies, benefits or services funded out of the Consolidated Fund of India.





PRELIMS

Q.1) AB Aurigae b sometimes seen in news is a?

- a) A protoplanet
- b) Deep sea vessel
- c) Newly discovered galaxy
- d) A Supercomputer

Answer: a

• The Hubble Space Telescope has photographed a Jupiter-like protoplanet, AB Aurigae b, forming through a process that researchers have described as "intense and violent".

Source: Article

Q.2) With reference to Ramjet, consider the following statements:

- 1. It is a type of jet engine that takes up oxygen from the atmosphere during flight.
- 2. Efficiency of Ramjet begins to drop at hypersonic speeds.

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

Both statements are correct.

- A ramjet is a form of air-breathing jet engine that takes up oxygen from the atmosphere during flight. Thus, it doesn't require an oxidizer as part of the solid motor.
- However, ramjet-powered vehicles require an assisted take-off like a rocket. It assists to accelerate it to a speed where it begins to produce thrust.
- Further, ramjets work efficiently at supersonic speeds around Mach 3 (three times the speed of sound) and can operate up to speeds of Mach 6. But the ramjet efficiency starts to drop when the vehicle reaches hypersonic speeds.

Source: Article

Q.3) With reference to Kodava takke, consider the following statements:

- 1. It has been classified as definitely endangered language by UNESCO.
- 2. It belongs to Dravidian group of languages.
- 3. It doesn't have a script of its own.

Which of the statements given above is/are correct?

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

Answer: d

All statements are correct.

- Kodava takke has been classified as definitely endangered language by UNESCO.
- It belongs to Dravidian group of languages

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• It doesn't have a script of its own.

Source: Article

Q.4) With reference to Indian Tent Turtle, consider the following statements:

- 1. It is a freshwater species.
- 2. It is listed as vulnerable species in the IUCN red list.

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

Both statements are incorrect.

- The preferred habitats of Indian Tent Turtle are freshwater rivers and swamps.
- It is listed as Least Concern (LC) in the IUCN red list.

Source: Article

Q.5) With reference to Hydrogen, consider the following statements:

- 1. Blue Hydrogen is produced using electrolysis powered by nuclear energy.
- 2. Steam Methane Reforming process for producing hydrogen results in greenhouse gas emissions.

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**: Blue Hydrogen is produced using fossil fuels but with carbon capture. Pink Hydrogen is produced using electrolysis powered by nuclear energy.
- **Statement 2** is **correct**: Steam Methane Reforming (SMR) though less expensive, produces greenhouse gas emissions that defeat the main purpose of opting for hydrogen in the first place. Currently, 90% of global hydrogen production uses SMR.





Q.6) Ashwini Vaishnaw Committee was recently seen in news. The committee is related to which of the following?

- a) Accelerating the growth of Animation, Visual Effects, Gaming and Comics (AVGC) Sector
- b) To promote semiconductor manufacturing in India
- c) Accelerating the indigenization in defense manufacturing in India
- d) Regulation of FinTech's in India

Answer: B

Recently, the government formed an advisory committee for semiconductor manufacturing in India. The committee will be chaired by Ashwini Vaishnaw, minister of electronics and IT.

The Committee shall steer the objectives in a structured, efficient, and strategic manner, and provide necessary guidance to the India Semiconductor Mission (ISM) executives.

Source: Livemint

Q.7) With reference to Unique Identification Authority of India, consider the following statements;

- 1. The UIDAI is mandated to assign a 12-digit unique identification (UID) number (Aadhaar) to all the residents of India.
- 2. UIDAI is a Statutory Authority.

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

Both the statements are correct.

The UIDAI is a statutory authority established on 12th July 2016 by the Government of India under the jurisdiction of the Ministry of Electronics and Information Technology, following the provisions of the Aadhaar Act 2016.

Note: The UIDAI was initially set up by the Government of India in January 2009, as an attached office under the aegis of the Planning Commission.

Mandate: The UIDAI is mandated to assign a 12-digit unique identification (UID) number (Aadhaar) to all the residents of India. As of 31st October 2021, UIDAI had issued 131.68 crore Aadhaar numbers.

Source: Indian Express



Q.8) With reference to the Body Mass Index (BMI), consider the following statements:

- 1. BMI measures bone structure, and fat distribution.
- 2. Muscular and athletic individuals may be placed in the overweight and obese categories.

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: Body mass index is a value derived from the mass and height of a person. The BMI is defined as the body mass divided by the square of the body height, and is expressed in units of kg/m², resulting from mass in kilograms and height in metres.

The main flaw with BMI is it is an indirect measure of body fat that doesn't take into account important details about age, sex, bone structure, and fat distribution.

Statement 2 is incorrect: Muscular and athletic folks may be placed in the overweight and obese categories. For instance, majority of elite boxers classify as fat, or obese, on the BMI chart. Mike Tyson in his prime, weighed 100 kgs. He was 1.78 metres tall. So he had a BMI of 31.5, which qualifies as "obese". Muhammad Ali — "The Greatest" also had a BMI of 29.5 in 1965, which is "very fat".

Source: Business Standard

Q.9) Which of the following is/are the concerns associated with fortification?

- 1. Prevalence of Hypervitaminosis
- 2. Food Toxicity
- 3. Decrease Value of Natural Food

Select the correct answer from the codes given below:

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

Answer: D

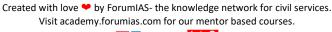
All the statements are correct.

Though food Fortification is expected to bring multiple benefits, it can also cause some adverse impacts. Such as,

Hypervitaminosis: Recent studies published in the medical journal Lancet show that both anaemia and Vitamin A deficiencies are overdiagnosed, meaning that mandatory fortification could lead to hypervitaminosis.

Toxicity: Adding one or two synthetic chemical vitamins and minerals will not solve the larger problem, and in undernourished populations it can lead to toxicity. A 2010 study that showed iron fortification causing gut inflammation and pathogenic gut microbiota profile in undernourished children.

Cartelisation: Mandatory fortification would harm the vast informal economy of Indian farmers and food processors. Instead it will benefit a small group of multinational corporations who will have sway over a Rs.3,000 crore market. Just five corporations have derived most of the benefits





of global fortification trends and these companies have historically engaged in cartelising behaviour leading to price hikes.

Decrease Value of Natural Food: Once iron-fortified rice is sold as the remedy to anaemia, the value and the choice of naturally iron-rich foods like millets, varieties of green leafy vegetables, etc might be suppressed by a policy of silence.

Source: Indian Express

Q.10) Which of the following is/are the impact of climate change on food systems?

- 1. Widening food basket
- 2. Increase in Nutritional insecurity
- 3. Reduction in pollinators

Select the correct answer from the codes given below:

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

Answer: C

The impact of climate change on food systems are,

Narrowing food basket: Climate change will also impact the productivity of perishable products. Hence, the overall diversity of the food system will be affected. The food basket might get narrower. Crops like vegetables won't be able to sustain themselves without more irrigation, which will then affect water supplies. **(Statement 1 is incorrect)**

Nutritional insecurity due to rising CO2 concentrations: Rising CO2 levels in the atmosphere are reducing key nutrients in staple crops like wheat and rice. Hence, there is a risk of micronutrient deficiencies in many countries, particularly in India. For instance, by mid-century, there could be reductions of five to 15% in iron, zinc and protein within the rice, wheat, maize and soy. These decreases could push 200 million people into new risks of nutrient deficiency while exacerbating existing deficiencies in one billion people. (**Statement 2 is correct**)

Reduction in pollinators: Reduction in population of pollinators has reduced the yield and production of certain fruits and vegetables. These fruits and vegetables are crucial in prevention of heart diseases and cancer. Researchers have found that around half a million lives are lost annually because of this. The impact is more on Eastern Europe, parts of the former Soviet Republic and middle-income nations (**Statement 3 is correct**)

Source: ForumIAS blog



International Organizations

Q.1) With reference to the Food and Agriculture Organization (FAO), consider the following statements:

- 1. It is a specialized agency of the United Nations.
- 2. It publishes the World Food Price Index.
- 3. It also conceptualized the Globally Important Agricultural Heritage Systems (GIAHS) Partnership Initiative.

Select the correct code from the options given below:

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

Answer: D

Explanation: About FAO:

It is a **specialized agency of the United Nations** that leads international efforts to defeat hunger. Their goal is to achieve food security for all and make sure that people have regular access to enough high-quality food to lead active, healthy lives.

Important initiatives of FAO:

World Food Price Index, State of the World's Forests Report, Codex Alimentarius, Globally Important Agricultural Heritage Systems (GIAHS).

Q.2) As recently seen in news, the "Pinaka system" is:

- a) Medium Altitude Long Endurance Unmanned Aerial Vehicle (UAV).
- b) Advanced Air Defence (AAD) interceptor missile.
- c) Multi-barrel rocket launcher system.
- d) Indigenously developed jet engine.

Answer: C Explanation:

Rustom - Medium Altitude Long Endurance Unmanned Aerial Vehicle (UAV). It is being developed to carry out surveillance and reconnaissance (ISR) roles and can carry different combinations of advanced payloads and capable of auto-landing, among others.

Ashwin: Advanced Air Defence (AAD) interceptor missile Ashwin is the advanced version of low altitude supersonic ballistic interceptor missile. It is indigenously developed by Defence Research and Development Organisation (DRDO) and can destroy any incoming hostile ballistic missile.

Pinaka - The Pinaka, a Multi-Barrel Rocket-Launcher (MBRL) system named after Shiva's bow, can fire a salvo of 12 rockets over a period of 44 seconds. It is developed by **DRDO**.



Q.3) With reference to microbots consider the following statements:

- 1. Microbots are tiny machines with characteristic dimensions of less than 1 cm.
- 2. It can be useful for crawling into cell phone batteries to clean and rejuvenate them.

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: Microbots are tiny machines with characteristic dimensions of less than 1 mm.
- Statement 2 is correct: It has applications in the field of drug delivery, neuroscience, pollution, cleaning of batteries, industrial applications such as cleaning of machines.

Place |

Q.4) Consider the following Geographical Indication (GI) tags and their places:

| | S | |
|----|-------------------|---------------|
| 1. | Bhagalpur Silk | West Bengal |
| 2. | Arani Silk | Tamil Nadu |
| 3. | Champa Silk | Chhattisgarh |
| 4. | Kancheepuram Silk | Andhra Prades |

Which of the combinations given above is/are correctly matched?

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

GI Tag

d) 2, 3, and 4 only

Answer: B Explanation:

- Bhagalpur Silk Bihar
- **Champa Silk** Chhattisgarh
- Kancheepuram & Arani silk Tamil Nadu
- Salem Silk Tamil Nadu
- Muga Silk Assam
- Mysore Silk Karnataka



Q.5) With respect to Merchant Discount Rates (MDR), consider the following statements:

- 1. It is the cost paid by a merchant to a bank for accepting payment from their customers via digital means.
- 2. Cardless cash withdrawal can have negative implications for MDR fee-generating payment form factors.

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 Explanation:

- **Statement 1 is correct: MDR** is the cost paid by a merchant to a bank for accepting payment from their customers via digital means. The merchant discount rate is expressed in the percentage of the transaction amount. Presently, it is applicable for online transactions and QR-based transactions.
- The amount that the merchant pays for every transaction gets distributed among three stakeholders--the bank that enables the transaction, vendor that installs the point of sale (PoS) machine and the card network provider such as Visa, MasterCard, RuPay.
- **Statement 2 is correct:** Cardless cash withdrawal can reduce the need to carry a debit card. Prima facie, this step seems negative for MDR fee-generating payment form factors.

Q.6) Which of the following statements correctly defines the term 'Brachytherapy'?

- a) Internal radiation therapy to treat cancers and tumors
- b) Supplementary oxygen for people suffering from lung disease
- c) A branch of traditional Indian medicinal system
- d) Prophylaxis for vaccine side-effects

Answer: a

• Brachytherapy is a type of radiation therapy used to treat cancer. It places radioactive sources inside the patient to kill cancer cells and shrink tumors. A small radioactive material called a source is put into your body, inside or close to the cancer.

Q.7) With reference to Viruses, consider the following statements:

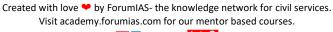
- 1. Antibiotics are useless against viral infections.
- 2. Viruses are single-cell, living organisms.

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: A

• **Statement 1 is correct:** Antibiotics are useless against viral infections. This is because viruses are so simple that they use their host cells to perform their activities for them. So





antiviral drugs work differently to antibiotics, by interfering with the viral enzymes instead.

• **Statement 2 is incorrect**: The viruses are non-cellular organisms that are characterized by having an inert crystalline structure outside the living cell.

Source: Article

Q.8) With reference to Sericulture in India, consider the following statements:

- 1. India is the only country in the world producing all the five known commercial varieties of silk.
- 2. Sericulture is included as agriculture allied activity under Rashtriya Krishi Vikas Yojana (RKVY)

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

Both statements are correct.

- India has the unique distinction of being the only country producing all the five known commercial silks, namely, mulberry, tropical tasar, oak tasar, eri and muga, of which muga with its golden yellow glitter is unique and prerogative of India.
- Sericulture is included as agriculture allied activity under RKVY. This enables the sericulturists to avail the benefits of the scheme for the entire sericulture activities up to reeling.

Source: Article

GEOGRAPHY

Q.9) With reference to forest fires, consider the following statements:

- 1. Almost 90% of wildfires occur due to natural causes like lightning.
- 2. Lack of soil moisture might cause forest fires.

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: Almost 90% of wildfires occur due to Anthropogenic causes. Smoking is the leading cause of forest fires globally.

Other anthropogenic reasons include Campfires, Burning Debris, Slash and Burn Cultivation, and others.

Statement 2 is correct: Lack of soil moisture and dryness in the soil triggers fire in forests. For example, the recent Uttarakhand wildfires are due to this.

Source: PIB





Q.10) Seema Darshan Project was recently seen in the news. The project is related to which of the following?

- a) To improve tourism in North-Eastern States
- b) To provide an opportunity to visualize the life and work of the BSF personnel on Indian border
- c) To improve the performance of Sashastra Seema Bal
- d) To increase pilgrimage activities in Char Dham

Answer: B

Union Home and Cooperative Minister has inaugurated 'Seema Darshan Project' at Nadabet located on the Indo-Pak border in Banaskantha District of Gujarat.

The project was initiated with the aim to provide an opportunity to the people so that they can visualize the life and work of the BSF personnel on our border.

Under the Project, all kinds of tourist facilities and other special attractions have been developed at a cost of 1 crore 25 lakhs.

Source: Hindustan Times





Defence Technology

Q.1) With reference to the missile 'HELINA', consider the following statements:

- 1. Helina is a helicopter-launched version of third-generation anti-tank guided missile.
- 2. The missile system has been designed and developed by DRDO in partnership with Israel.

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: A Explanation:

- **Statement 1 is correct:** Helina (Indian Army) is a helicopter-launched version of third-generation anti-tank guided missile (Nag missile system). The missile system has all-weather day-and-night capability and can defeat battle tanks with conventional armor and explosive reactive armor.
- Statement 2 is not correct: The missile systems have been designed and developed indigenously by the Defence Research and Development Organisation (DRDO).

Q.2) With reference to Intelligent Transportation System Endeavor for Indian Cities Phase-II (InTranSE –II), consider the following statements:

- 1. It is an initiative of the Ministry of Road Transport and Highways.
- 2. It includes an indigenous Onboard Driver Assistance and Warning System ODAWS and Bus Signal Priority System only.

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 Explanation:

Statement 1 is not correct: It is an initiative of the Ministry of Electronics and Information Technology (MeitY).

Statement 2 is not correct: An indigenous Onboard Driver Assistance and Warning System – ODAWS, Bus Signal Priority System and Common SMart iot Connectiv (CoSMiC) software have been launched.

For more info: https://www.pib.gov.in/PressReleasePage.aspx?PRID=1815565

Q.3) The State Energy & Climate Index is released by:

- a) Ministry of Power
- b) Ministry of Environment, Forest, and Climate Change
- c) NITI Aayog
- d) Ministry of New and Renewable Energy

Answer: C



Explanation: NITI Aayog has launched the State Energy & Climate Index-Round I.

The State Energy & Climate Index (SECI) Round I ranks the states' performance on 6 parameters, namely, (1) DISCOM's Performance (2) Access, Affordability and Reliability of Energy (3) Clean Energy Initiatives (4) Energy Efficiency (5) Environmental Sustainability; and (6) New Initiatives.

The states have been categorized based on size and geographical differences as larger states, smaller states, and UTs. Gujarat, Kerala, and Punjab have been ranked as the top three performers in the category of larger states. Goa emerged as the top-performing state in the smaller states category, followed by Tripura, and Manipur. Among UTs, Chandigarh, Delhi, and Daman & Diu/Dadra & Nagar Haveli are the top performers.

Q.4) Consider the following statements:

- 1. Great Britain consists of England, Scotland, Wales, Northern Ireland.
- 2. The British Isles consists of England, Scotland, Wales, Northern Ireland, and Ireland.
- 3. The English Channel lies between the U.K. and France.

Select the correct code from the options given below:

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

Answer: C Explanation:

- Statement 1 is not correct: Great Britain consists of England, Scotland, Wales. Whereas, the U.K. consists of England, Scotland, Wales, Northern Ireland.
- Statement 2 is correct: The British Isles consists of England, Scotland, Wales, Northern Ireland, and Ireland.
- **Statement 3 is correct:** The English Channel lies between the U.K. and France.

Q.5) Consider the following statements:

- 1. Assam shares boundary with seven other States.
- 2. Tripura shares international boundary with Bangladesh only.
- 3. Mizoram shares international boundary with Myanmar only.
- 4. All the eight North-eastern states have international borders.

Select the correct code from the options given below:

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

Answer: C **Explanation:**

- Statement 1 is correct: Assam shares a boundary with seven States: West Bengal, Meghalaya, Arunachal Pradesh, Nagaland, Manipur, Mizoram, and Tripura.
- Statement 2 is correct: Tripura shares international boundary with Bangladesh only.
- Statement 3 is not correct: Mizoram shares international boundary with Myanmar and Bangladesh also.
- **Statement 4 is correct:** All the eight North-eastern states have international borders.





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Q.6) With reference to the recently released Public Sector Enterprise Policy, which of the following is/are classified as strategic sectors?

- 1. Transport and telecommunications
- 2. Banking and Insurance
- 3. Petroleum and Coal

Select the correct answer from the codes given below:

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

Answer: d

The policy classifies public sector commercial enterprises into the strategic and non-strategic sectors - **Strategic Sectors**: There would be a maximum of four public sector companies in strategic sectors. State-owned firms in other segments would be privatized eventually. The following 4 sectors are covered under strategic sectors:

- Atomic energy, Space and Defence
- Transport and Telecommunications
- Power, Petroleum, Coal, and other minerals
- Banking, Insurance, and financial services

Q.7) Arrange the following straits from North to South:

- 1. Sunda
- 2. Lombok
- 3. Makassar

Select the correct answer from the codes given below:

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

Answer: d

The correct order from North to South is -

- Makassar
- Sunda
- Lombok

Source: Article



Q.8) Which among the following is a primary pollutant?

- 1. Oxides of Sulphur
- 2. Carbon Monoxide
- 3. Peroxyacetyl nitrate

Select the correct answer from the codes given below:

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

Answer: a

- **Primary pollutants** are persistent in the form in which they are added to the environment, e.g. DDT, plastic, CO, CO2, oxides of nitrogen and sulphur, etc.
- **Secondary Pollutants** are formed by interaction among the primary pollutants. For example, peroxyacetyl nitrate (PAN) is formed by the interaction of nitrogen oxides and hydrocarbons.

Source: Article

Q.9) Which of the following processes might cause coastal erosion?

- 1. Hydraulic Action
- 2. Abrasion
- 3. Compression

Select the correct answer from the codes given below.

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

Answer: D

All the above processes cause coastal erosion.

Hydraulic Action: Hydraulic Action is the sheer force of water crashing against the coastline causing material to be dislodged and carried away by the sea.

Abrasion: Abrasion is when rocks and other materials carried by the sea are picked up by strong waves and thrown against the coastline causing more material to be broken off and carried away by the sea.

Attrition: Attrition is when material such as rocks and stones carried by waves hit and knock against each other wearing them down.

As these materials are worn down sand and rounded beach pebbles are formed.

Compression: Compression occurs in rocky areas when air enters into crack in rock.

This air is trapped in cracks by the rising tide, as waves crash against the rock the air inside the crack is rapidly compressed and decompressed causing cracks to spread and pieces of rock to break off. Compression is one of the main processes that result in the creation of caves.



Q.10) With reference to Megaliths, consider the following statements:

- 1. Megaliths were constructed either as burial sites or commemorative (non-sepulchral) memorials.
- 2. The majority of megalithic sites in India are found in Northern India.

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: A

Statement 1 is correct: A megalith is a large stone that has been used to construct a prehistoric structure or monument, either alone or together with other stones. Megaliths were constructed either as burial sites or commemorative (non-sepulchral) memorials.

Statement 2 is incorrect: Megaliths are spread across the Indian subcontinent. The majority of megalithic sites are found in Peninsular India, concentrated in the states of Maharashtra (mainly in Vidarbha), Karnataka, Tamil Nadu, Kerala, Andhra Pradesh, and Telangana.

Source: Indian Express





GEOGRAPHY

Q.1) Match the following straits and the seas associated with them:

Straits

Seas Connected

- 1. Kerch Strait
- 2. Dardanelles Strait
- 3. Bosporus Strait
- 4. Strait of Gibraltar

- A. Sea of Marmara and Black Sea
- B. Mediterranean Sea and Atlantic Ocean
- C. Sea of Marmara and Aegean Sea
- D. Sea of Azov and Black Sea

Select the correct code from the options given below:

- a) 1-D, 2-C, 3-A, 4-B
- b) 1-C, 2-D, 3-B, 4-A
- c) 1-D, 2-A, 3-C, 4-B
- d) 1-C, 2-D, 3-A, 4-B

Answer: A Explanation:

Q.2) Consider the following pairs:

Sea

- Adriatic Sea
 Black Sea
 Caspian Sea
 Mediterranean Sea
- 5. Red Sea

Bordering Country

Albania Croatia Kazakhstan Morocco Syria

Which of the pairs given above is/are correctly matched?

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

Answer: B

Explanation: UPSC CSE PYQ 2019



Q.3) With reference to Dornier aircraft (Do-228), consider the following statements:

- 1. It is a small civil transport aircraft.
- 2. It is built on the existing frame of the German Dornier 228 defence transport aircraft used by the defence forces.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 and 2

Answer: C

Explanation: Recently, the first flight of Made in India HAL Dornier Do-228 in a bid to connect airports and Advanced Landing Grounds (ALGs) of Northeast India, was flagged off.

- **Statement 1 is correct:** The 19-seater Do-228 is the first major attempt in India to develop a small civil transport aircraft.
- **Statement 2 is correct:** It is built on the existing frame of the German Dornier 228 defence transport aircraft used by the defence forces.

Alliance Air, a public sector airline company, had signed a Memorandum of Understanding (MoU) with Hindustan Aeronautics Limited (HAL), a Central Public Sector Unit under Ministry of Defence to operate Indian made Dornier aircraft, which is called Hindustan aircraft. This initiative is in line with the vision of Prime Minister of India Shri Narendra Modi "AtmaNirbhar Bharat. With this, Alliance Air becomes the first commercial airline to fly Indian made aircraft for civil operations.

Q.4) With reference to patents, consider the following statements:

- 1. A patent is available for both inventions and discoveries.
- 2. It is necessary that the invention should have an industrial application.
- 3. The term of a patent is limited to 20 years.

Select the correct code from the options given below:

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

Answer: C Explanation:

- Statement 1 is not correct: Patent is not available for discoveries. It is only available for inventions.
- Statement 2 is correct: Under the Patents Act, 1970, "invention" means a new product or process involving an inventive step and capable of industrial application.
- **Statement 3 is correct:** The term of a patent is limited to 20 years.



Q.5) With reference to Telecom Regulatory Authority of India, consider the following statements:

- 1. It is a statutory body.
- 2. It regulates telecom services including fixation/revision of tariffs for telecom services.

Which of the statements given above is/are incorrect?

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

Answer: D Explanation:

- **Statement 1 is correct:** The Telecom Regulatory Authority of India (TRAI) was established on 20th February, 1997 by the Telecom Regulatory Authority of India Act, 1997
- Statement 2 is correct:

Objectives of TRAI:

TRAI's mission is to create and nurture conditions for growth of telecommunications in the country.

TRAI regulates telecom services including fixation/revision of tariffs for telecom services which were earlier vested in the Central Government.

It also aims to provide a fair and transparent policy environment which promotes a level playing field and facilitates fair competition.

Q.6) With reference to various terms related to environment pollution and greenhouse gas emissions, consider the following statements:

- 1. Carbon neutrality is also referred to as net-zero carbon dioxide emission wherein you can't add any carbon dioxide to the air.
- 2. Tipping point is a level of change in system properties beyond which a system reorganizes, often abruptly, and does not return to the initial state.

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**: Carbon neutrality does not means adding no CO2 to the air. It means that if you do add carbon dioxide into the air you take out the same amount.
- Statement 2 is correct



Q.7) With reference to patents and Intellectual Property regime in India, consider the following statements:

- 1. A patent is a statutory right.
- 2. An invention which has been either published or publicly displayed cannot be patented.

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: a

- **Statement 1 is correct:** A Patent is a statutory right for an invention granted for a limited period of time to the patentee by the Government, in exchange of full disclosure of his invention for excluding others, from making, using, selling, importing the patented product or process for producing that product for those purposes without his consent.
- Statement 2 is incorrect: Generally, an invention which has been either published or publicly displayed cannot be patented as such publication or public display leads to lack of novelty. However, under certain circumstances, the Patents Act provides a grace period of 12 months for filing of patent application from the date of its publication in a journal or its public display in an exhibition organised by the Government or disclosure before any learned society or published by applicant.

Source: Article

Q.8) With reference to Mid-day meal Scheme, consider the following statements:

- 1. The first initiative to provide meals to children was taken by the erstwhile Madras Municipal Corporation before independence.
- 2. The cost of foodgrains and their transportation is split between the Centre and the states.

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: a

- **Statement 1 is correct:** The first initiative to provide meals to children had been taken by the erstwhile Madras Municipal Corporation around 1920. In post-Independence India, Tamil Nadu was again the pioneer, with Chief Minister K Kamaraj rolling out a school feeding scheme in 1956.
- **Statement 2 is incorrect:** The Centre bears the entire cost of foodgrains and their transportation, and also handles the expenditure on management, monitoring and evaluation of the scheme.

Source: Article



Q.9) With reference to PM SVANidhi Scheme, consider the following statements:

- 1. Those who repay their loans on time will get some percent of annual interest as subsidy in their bank accounts.
- 2. The Ministry of Finance is the nodal ministry for the scheme.

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: a

Statement 1 is correct: Under this scheme, each of the street vendors will be given a credit loan of Rs 10,000 which they can return as monthly installments within a year.

Those who repay their loans on time will get 7% annual interest as subsidy which will be transferred in their bank accounts.

Statement 2 is incorrect: Ministry of Housing & Urban Affairs is the nodal Ministry for the scheme.

Source: PIB

Q.10) With reference to Canister Launched Anti-Armour Loiter Ammunition(CALM) System, consider the following statements:

- 1. Once fired CALM System can remain aloft for a period of time and when a target is sighted it can be guided down to destroy the target.
- 2. CALM system can be used by the operator to see the area of operation and choose targets.

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

Both the statements are correct.

CALM System is a preloaded canister with loitering ammunition or a drone. Once fired it can remain aloft for a period of time over the area of operation and when a target is sighted it can be guided down to destroy the target with the explosive payload that it carries.

Usually, loiter ammunition carries a camera that is nose-mounted and which can be used by the operator to see the area of operation and choose targets.

These munitions also have variants that can be recovered and reused in case they are not used for any strike.

Source: <u>Indian Express</u>



PRELIMS

Q.1) Consider the following statements:

- 1. Under the Khelo India scheme, players identified are provided annual financial assistance of Rs. 8 lakh per annum for 5 years.
- 2. Fit India Movement was launched by FSSAI to people to make fitness their lifestyle.

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 Explanation:

- a. **Statement 1 is not correct:** Under the Khelo India scheme, players identified are provided annual financial assistance of **Rs. 5 lakh per annum for 8 years.** It comes under the ambit of the Ministry of Youth Affairs and Sports.
- b. **Statement 2 is not correct:** The Prime Minister on the occasion of National Sports Day in 2019 launched the 'Fit India Movement' as the People's Movement & urged people to make fitness their lifestyle. It was not launched by FSSAI.

Q.2) With reference to Panchayati Raj system in India, consider the following statements:

- 1. It was given a constitutional status by the 73rd Constitutional Amendment Act.
- 2. It provides for compulsory reservation of seats for SCs, STs and OBCs in the panchayats at all levels.
- 3. It provides for 21 years to be the minimum age for contesting elections.

Which of the statements given above is/are correct?

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

Answer: B Explanation:

- **Statement 1 is correct:** It was given a constitutional status by the 73rd Constitutional Amendment Act. Provisions were made under Part IX-A of the Constitution.
- **Statement 2 is not correct:** It provides for compulsory reservation of seats for SCs and STs in the panchayats at all levels. The provision for reservation of seats for OBCs can be made by the state government but it is not compulsory.
- **Statement 3 is correct:** 21 years to be the minimum age for contesting elections.



Q.3) Consider the following questions:

- 1. Right to Reservation is a fundamental right provided under Article 15 and Article 16 of the Constitution.
- 2. Minority institutions are exempt from providing caste-based reservations.

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

Explanation:

- Statement 1 is not correct: The Supreme Court in the case of State of Tamil Nadu v. Union of India (2020) held that there is no fundamental right to Reservation.
- **Statement 2 is correct:** Under Article 15, minority institutions are specifically exempted from providing caste-based reservations.

Q.4) Arrange the following passes, between India and China, from East to West:

- 1. Nathu la pass
- 2. Bum la pass
- 3. Shipki la pass
- 4. Lipulekh pass

Select the correct code from the options given below:

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

Answer: C

Explanation: From east to west:

- **Bum la** is a border pass between Tibet's Cona County and India's Tawang district in **Arunachal Pradesh.**
- Nathu La is a mountain pass between China's Yadong County in Tibet and the Indian states of Sikkim and West Bengal.
- Lipulekh pass is a Himalayan pass on the border between India's Uttarakhand state and the Tibet region of China near their trijunction with Nepal.
- Shipki la is in the state of Himachal Pradesh.



Q.5) With reference to coal sector in India, consider the following statements:

- 1. India is the world's second largest producer of coal.
- 2. India is the world's second largest importer of coal.

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 **Explanation:**

- **Statement 1 is correct:** India is the world's second-largest coal producer and the 5th largest country in terms of coal deposits.
- Statement 2 is correct: As per the coal directory 2020-21, India is the second largest importer, and it imports coal from Indonesia, Australia, South Africa, and the USA.

Q.6) With reference to Lemon production in India, consider the following statements:

- 1. A warm, moderately dry and moist climate is the most suitable for the crop.
- 2. India neither exports nor imports the fruit.

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

Both statements are correct.

- A warm, moderately dry and moist climate is the most suitable for the fruit, with heavy rainfall inducing bacterial diseases in orchards.
- Annually, India produces over 37.17 lakh tonnes of the fruit, which is consumed domestically. The fruit is neither exported or imported.

Source: Article

Q.7) With reference to the revamped Rashtriya Gram Swaraj Abhiyan (RGSA), consider the following statements:

- 1. It is a centrally sponsored scheme.
- 2. This scheme will not cover the institutions of rural local government in non-Part IX areas, where Panchayats do not exist.

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: a



- **Statement 1 is correct:** RGSA is a centrally sponsored scheme.
- **Statement 2 is incorrect**: Scheme extends to all States and UTs of the country and will also include institutions of rural local government in non-Part IX areas, where Panchayats do not exist.

Source: Article

Q.8) Consider the following statements regarding Kyasanur Forest disease

- 1. The disease primarily affects humans and monkeys.
- 2. There is no specific treatment for this disease.
- 3. A vaccine is there for this disease and it is used in India.

Which of the statements given above is/are correct?

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

Answer: d

- The Kyasanur Forest disease is caused by a Kyasanur Forest disease virus. The disease primarily affects humans and monkeys.
- India: The disease was first identified in the Kyasanur forest of Shimoga district in Karnataka during an investigation of monkey mortalities in 1957.
- Symptoms: The disease is characterized by chills, frontal headache, body ache, and high fever for five to 12 days with a case fatality rate of 3 to 5%.
- Transmission:
 - o Rodents, shrews, and monkeys are common hosts for KFDV after being bitten by an infected tick.
 - o Transmission to humans may occur after a tick bite or contact with an infected animal, most importantly a sick or recently dead monkey.
- Diagnosis: Diagnosis can be made in the early stage of illness by molecular detection by PCR or virus isolation from blood.
- Treatment: There is no specific treatment for KFD. A vaccine (Formalin inactivated KFDV vaccine) does exist for KFD and is used in endemic areas of India.
- Recently, a new point-of-care test has been developed for the rapid diagnosis of Kyasanur Forest Disease (KFD).

Q.9) With reference to India Pride Project, consider the following statements:

- 1. The project uses social media to identify stolen religious artefacts from Indian temples and secure their return.
- 2. It is a collaborative initiative of UNESCO and Government of India.

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: A



Statement 1 is correct: The project uses social media to identify stolen religious artefacts from Indian temples and secure their return.

Statement 2 is incorrect: It is an initiative by the group of art enthusiasts.

Source: ForumIAS Blog

Q.10) The term silver generation was recently seen in the news, is related to

- a) The generation of smart phones that has the capability to perform like computers
- b) The young generation of people who lacks physical activities and vulnerable to lifestyle diseases
- c) A generation of individuals aged 60 and older
- d) A generation of kids having mental health issues due to working parents

Answer: C

Global estimates suggest that there are one billion people in the silver generation (a global cohort of individuals aged 60 and older) with a combined spending power of \$15 trillion and the size is ever-expanding.

Development in medicinal science and technology will support extending the lifespan and longevity of the silver generation.

It is estimated that by 2040, there will be more members of the silver generation than people under 20. This demographic change will throw open new challenges and opportunities, especially in the areas of wealth management, health, insurance, and other investment products.

Source: PIB





PRELIMS

Q1 With reference to Public Accounts Committe, consider the following statements:

- 1. It consists of members of Lok Sabha only.
- 2. The term of office of the members is one year.

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:** PAC has 22 members. All the members are taken from the Indian Parliament. Out of 22 members, 15 are elected from Lok Sabha (Lower House) and 7 members are elected from Rajya Sabha (Upper House).
- Statement 2 is correct: Term of office is 1 year.

Q.2) Semnopithecus entellus sometimes seen in news is a species of?

- a) Primate
- b) Fish
- c) Spider
- d) Lizard

Answer: a

• It is a species of primate known as Gray Langur.

Q.3) With reference to Steel slag, consider the following statements:

- 1. Thickness of steel slag roads is more as compared to conventional roads made of asphalt.
- 2. It can also be used in agriculture sector as a fertilizer and a soil nutrient.

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:** Steel slag roads have 30% lesser thickness as compared to conventional roads made of asphalt.
- **Statement 2 is correct:** Steel slag contains calcium, silicon, manganese, phosphate and iron. The use of steel slag as fertilisers and soil nutrients is gaining importance across the globe as it represents an eco-friendly application wherein advantages of chemical properties of steel-making slag can be utilised to promote the growth of plants and increase the yield of agricultural products, particularly in the areas where the soil is acidic.

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Source: Article

Q.4) Arrange the following from North to South:

- 1. Spratly islands
- 2. Taiwan Strait
- 3. Natuna islands

Select the correct answer from the codes given below:

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

Answer: d

The correct order from North to South -

- Taiwan Strait
- Spratly islands
- Natuna islands

Source: Article

Q.5) With reference to Sovereign debt, consider the following statements:

- 1. A Government can borrow debt in either local or foreign currency.
- 2. Debt monetization often leads to a price rise in an economy.

Which of the statements given above is/are correct?

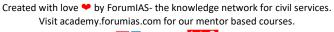
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: c

Both statements are correct.

- Governments can borrow either in their local currency or in foreign currency like the U.S. dollar.
- Governments usually find it easier to borrow and repay in their local currency. This is because governments with the help of their central banks can easily create fresh local currency to repay debt denominated in the local currency. This is known as **debt** monetisation and it can lead to increased money supply, which in turn causes prices to rise.

Source: Article





Q.9) With reference to color blindness, consider the following statements:

- 1. Rod cells in the eye help in detecting color.
- 2. Colour blindness cannot be reversed.

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: Two types of cells in the retina detect light:

- Rod cells: These help in distinguishing between light and dark.
- Cone cells: These help in detecting colour.

Statement 2 is correct: Colour blindness cannot be reversed. However, it can be corrected to some extent by wearing special contact lenses or colour filter glasses.

Source: <u>Indian Express</u>

Q.10) Which of the following is/are the advantages of ropeways?

- 1. It is an Economical mode of transportation in hilly area.
- 2. Provide Last-mile connectivity.
- 3. Faster mode of transportation.

Select the correct answer from the codes goven below:

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

Answer: C

The advantages of ropeways are,

Economical mode of transportation: Ropeway projects are built in a straight line over hilly terrain. Hence, despite having a higher cost of construction per km than roadways, ropeway projects' construction cost may happen to be economical than roadways.

Faster mode of transportation: Owing to the aerial mode of transportation, ropeways have an advantage over roadway projects.

Last-mile connectivity: Ropeway projects adopting 3S (a kind of cable car system) or equivalent technologies can transport 6000-8000 passengers per hour.

Economic benefits: (a) Ropeways having multiple cars propelled by a single power plant and drive mechanism. This reduces both construction and maintenance costs; (b) Further, the ropeways employ a single operator for an entire ropeway. This results in huge savings in labour costs. (c) On level ground, the cost of ropeways is competitive with narrow-gauge railroads. On the other hand, in the mountains the ropeway is far superior to railroads.

Source: Livemint



Q.1) With reference to flexible fuel vehicles (FFVs), consider the following statements

- 1. The cost of Flex Fuel Engines is more than conventional engines.
- 2. FFVs cannot run on unblended fuel.

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: A

Statement 1 is correct: Flex Fuel Engines cost more as ethanol has very different chemical properties than petrol. Ethanol has very low (40 per cent) Calorific value as compared to Gasoline, very High Latent heat of vaporization causing cooling of charge/combustion etc. Hence, the cost of Flex Fuel Engines is more than conventional engines.

Statement 2 is incorrect: FFVs allow vehicles to use all the blends and unblended fuels.

Source: The Business Line

Environment

Q.2) Amathusia phidippus was recently seen in news, it is related to which of the following?

- a) A new banana species found in Andaman and Nicobar islands.
- b) A new bacteria species that can disintegrate plastic waste.
- c) A rare Palmking butterfly identified for the first time in Tamil Nadu.
- d) New Multi Drug Resistant Bacteria found in the Antarctic region for the first time.

Answer: C

Recently, the rare butterfly Palmking (Amathusia phidippus) was sighted for the first time in Tamil Nadu. The butterfly is characterised by its brown colour and dark bands and is described as reclusive, mostly resting in the shade.

Source: The Hindu

Q.3) With reference to Ballistic and Cruise missiles, consider the following statements:

- 1. Ballistic missiles can hit with more precision than the cruise missiles.
- 2. The flying altitude of Cruise missiles is much lower than Ballistic missiles.

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

Statement 1 is incorrect: Cruise missiles can hit with more precision than the Ballistic missiles. This is why, the cruise missiles are fit for small and mobile targets.

Statement 2 is correct: The flying altitude of Cruise missiles is much lower than Ballistic missiles.

Source: Indian Express





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Q.4) With reference to India Meteorological Department (IMD), consider the following statements:

- 1. It is the principal agency responsible for meteorological observations, weather forecasting and seismology.
- 2. The IMD predicts a "normal", "below normal", or "above normal" monsoon in relation to a benchmark "Long Period Average"(LPA).

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

Both the statements are correct.

Recently, the India Meteorological Department (IMD) released its first Long Range Forecast (LRF) for 2022 which says that the country is likely to receive a normal monsoon for the fourth consecutive year.

IMD is the principal agency responsible for meteorological observations, weather forecasting and seismology.

The IMD predicts a "normal", "below normal", or "above normal" monsoon in relation to a benchmark "Long Period Average" (LPA). According to the IMD, the "LPA of rainfall is the rainfall recorded over a particular region for a given interval (like month or season) averaged over a long period like 30 years, 50 years, etc".

Source: The Hindu

Q.5) Which of the following countries share their land border with the Black Sea?

- 1. Bulgaria
- 2. Moldova
- 3. Russia
- 4. Greece
- 5. Turkey

Select the correct answer from the codes given below:

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

Answer: B





Black Sea is bound by Ukraine to the north and northwest, Russia and Georgia to the east, Turkey to the south, and Bulgaria and Romania to the west.

It links to the Sea of Marmara through the Bosphorus and then to the Aegean through the Dardanelles.

Black sea has traditionally been Russia's warm water gateway to Europe.

Source: Indian Express

Q.6) Barbara Forest is located in which of the following states?

- a) Tamil Nadu
- b) Odisha
- c) Andhra Pradesh
- d) Himachal Pradesh

Answer: B

The Odisha Government is planning to put the Barbara forest on the ecotourism map.

It is known as Asia's largest Teak and Sal forest.

Districts: The forest touches three districts Khordha, Nayagarh and Ganjam of Odisha.

Barbara forest is located near Chilika lake in coastal Odisha.

Named After: The forest is named after a British forest officer's wife, who was killed in a tiger attack in the area 100-odd years ago.

Significance: It is said to be the only forest in India that is guarded by the CRPF (Central Reserve Police Force) for protecting natural resources.

Source: TOI



Q.7) With reference to Purple frog, consider the following statements;

- 1. The frog is endemic to the Eastern Ghats.
- 2. The frog is listed as Endangered in IUCN redlist.
- 3. It is one of the oldest lineages among all living frogs on Earth.

Which of the statements given above is/are correct?

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

Answer: B

Statement 1 is incorrect: The frog is endemic to the Western Ghats. Its distribution limited mainly to Kerala and some parts of Tamil Nadu.

Statement 2 is correct: The frog is listed as Endangered in IUCN redlist.

Statement 3 is correct: The purple frog is a unique animal. This frog has an evolutionary history that goes back 120 million years -- this is one of the oldest lineages among all living frogs on Earth. Species with such old lineages are termed a 'living fossil'.

Source: TOI

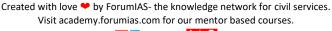
Q.8) e-DAR' (e-Detailed Accident Report) portal recently seen in news, is aimed at which of the following areas?

- a) To help accelerate accident compensation claims by making available the police reports on accidents to insurance companies.
- b) To help fight the traffic jam situation by providing citizens with accident info in their area.
- c) To help save the lives of accident victims by providing advance info to nearby hospitals about accidents.
- d) To help improve the infrastructure or roads by finding the blind spots leading to accidents

Ans) a

The portal can be used by the police to upload the accident reports on it. The portal will alert the concerned insurance company and the details of the vehicles and owners can be fetched as it is linked to the Vaahan portal. Hence, the portal can reduce the paperwork related to the accident claim process.

The portal will be linked to the Integrated Road Accident Database(iRAD). It will also be linked to other government portals like Vaahan as it would help get access to information on driving license details and registration of vehicles.





Q.9) Which of the following statements is/are correct regarding Barbara Forest?

- 1. It is located in Telangana
- 2. It is known as Asia's largest Teak and Sal Forest.
- 3. It is the only forest in India that is guarded by the CRPF for protecting natural resources **Answer using the codes given below**
- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

Ans. b

Statement 1 is incorrect. Barbara forest is located near Chilika lake in coastal Odisha. Statement 2 is correct. It is known as Asia's largest Teak and Sal Forest. Statement 3 is correct. It is said to be the only forest in India that is guarded by the CRPF (Central Reserve Police Force) for protecting natural resources.

Q.10) With reference to Kaavi art, consider the following statements:

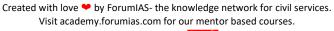
- 1. It is a kind of sculpture modelling.
- 2. This art was introduced by the Portuguese in India.

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**: It is a wall art found in Konkan region, especially in temples of Goa, parts of coastal Maharashtra and Karnataka.
- **Statement 2 is correct**: The art was introduced by the Portuguese who ruled Goa until 1961.





PRELIMS

Q.1) What are the advantages of Vertical Farming?

- 1. Increases Photosynthesis
- 2. Reduces transportation cost
- 3. Low Initial capital costs for establishment

Select the correct answer using the codes given below:

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

Answer: a

- **Statement 1 is correc**t- By Vertical Farming, food crops can be cultivated easily in urban areas by planting in vertically stacked layers in order to save space and use minimal energy and water for irrigation. Vertical farming can permit crops to be grown through out the year. It uses L.E.D lights so photosynthesis can occur all day.
- **Statement 2 is correct**-Since vertical farming system can be easily done in cities so this will reduce transportation costs.
- **Statement 3 is incorrect** High initial capital costs for establishing the vertical farming system is the major problem. In addition there are costs of erecting the structures along with its automation like automated racking and stacking systems, programmable LED lighting systems, climate control system, etc.

Q.2) With reference to medicinal plants in India, consider the following statements:

- 1. Rajasthan has the largest area under medicinal plants while Madhya Pradesh leads in production.
- 2. e-CHARAK acts as a platform to enable information exchange between various stakeholders involved in the medicinal plants sector.

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

Both statements are correct.

- Among the states, Rajasthan has the largest area under medicinal plants while Madhya Pradesh leads in production. The other states that account for significant areas and production of these plants and their value-enhanced products include Uttar Pradesh, Tamil Nadu, Punjab, Chhattisgarh, Andhra Pradesh, and Bihar. Many other states, too, possess ample potential for herbal farming but much of that remains untapped.
- e-CHARAK, an electronic platform for interaction between various stakeholders in the medicinal plants sector. This portal, developed jointly by the Ayush ministry's NMPB and the Centre for Development of Advanced Computing (C-DAC), allows sale, purchase and sharing of material as well as knowhow between different stakeholders.

Source: Article



Q.3) Which of the following can cause cost-pull inflation in an economy?

- 1. Rise in government expenditure
- 2. Increase in profit margin by firms
- 3. Increase in prices of imports

Select the correct answer from the codes given below:

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

Answer: b

- Rise in govt expenditure will increase the aggregate demand so it'll lead to demand pull inflation.
- If firms decide to increase their profit margin, it results in increase in prices of goods and services. It usually happen when a single company id major supplier of the goods (monopoly).
- Increase in prices of inputs which are imported can lead to rise in overall price of goods

Source: Article

Q.4) With reference to the Enforcement Directorate (ED), consider the following statements:

- 1. It functions under the Ministry of Home Affairs (MHA).
- 2. It can register a case on its own like the Central Bureau of Investigation (CBI).

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

Both statements are incorrect.

- ED functions under the Department of Revenue, Ministry of Finance.
- Enforcement directorate cannot register a case on its own, it is required by the agencies such as CBI or state police to register an offense based on which the ED Case Information Report is filed by Enforcement Directorate.

Source: Article



Q.5) With reference to comets, consider the following statements:

- 1. Short period comets are found in the Kuiper Belt.
- 2. The tail of a comet is made up of dust particles and electrically charged gas molecules.

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

Both statements are correct.

- Comets are mostly found way out in the solar system. Some exist in a wide disk beyond the orbit of Neptune called the Kuiper Belt. These are called short-period comets. They take less than 200 years to orbit the Sun.
- Other comets live in the Oort Cloud, the sphere-shaped, outer edge of the solar system that is about 50 times farther away from the Sun than the Kuiper Belt. These are called long-period comets because they take much longer to orbit the Sun.

Source: Article

Q.6) South Asia Economic Focus report is released by which of the following organizations?

- a) World Economic Forum
- b) Asian Development Bank
- c) World Bank
- d) New Development Bank

Answer: C

Recently, the World Bank in its report South Asia Economic Focus (Bi- Annual) cut its economic growth forecast for India and the whole South Asian region.

South Asia Economic Focus describes recent economic developments, analyses the economic impact on South Asia of the war in Ukraine, presents growth forecasts, provides risk scenarios, and concludes that reshaping economies goes hand in hand with reshaping norms.

Source: Indian Express

Q.7) With reference to parboiled rice, consider the following statements:

- 1. Parboiling increases the nutrient value of rice.
- 2. The parboiling rice milling unit requires a higher investment than a raw rice milling unit.
- 3. Parboiled rice has a lower resistance to insects and fungi.

Which of the statements given above is/are correct?

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

Answer: A



Statement 1 is correct: Parboiling increases the nutrient value of the rice.

Statement 2 is correct: Parboiling rice milling unit requires a higher investment than a raw rice milling unit.

Statement 3 is incorrect: Parboiled rice has a higher resistance to insects and fungi.

Source: Indian Express

Q.8) With reference to Khajuraho Group of Monuments, consider the following statements;

- 1. These temples are famous for their vesara-style architecture.
- 2. Most Khajuraho temples were built by the Chandela dynasty.
- 3. These are group of Hindu and Jain temples.

Which of the statements given above is/are correct?

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

Answer: B

Statement 1 is incorrect: The temples are famous for their nagara-style architectural symbolism and their erotic sculptures. They are located in Chhatarpur district, Madhya Pradesh. They are a UNESCO World Heritage Site.

Statement 2 is correct: Most Khajuraho temples were built between 885 AD and 1050 AD by the Chandela dynasty.

Statement 3 is correct: These are group of Hindu and Jain temples.

Source: PIB

Q.9) The first of its kind India's seaweed park is going to be established in which of the following state?

- a) Bihar
- b) West Bengal
- c) Gujarat
- d) Tamil Nadu

Answer: D

The Centre would establish a seaweed park with special economic zone status in Tamil Nadu. The project will be the first of its kind in India and will come up under the PM Kisan Sampada Yojana.

Note: Seaweed, or macroalgae, refers to thousands of species of macroscopic, multicellular, marine algae.

Source: AIR





Q.10) With reference to **public debt**, consider the following statements:

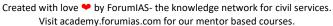
- 1. Austerity measures are followed to overcome the Sovereign Debt Crisis.
- 2. The Reserve Bank of India (RBI) is responsible for managing India's public debt at national and state level.

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: A

Statement 1 is correct: Austerity measures refers to economic policies implemented by governments to reduce government spending in order to reduce public debt and shrink the budget deficit. Some of such measures include increasing taxes, reducing spending on government programs, reducing the salaries and wages of government employees, etc. **Statement 2 is incorrect**: The Reserve Bank of India (RBI) is responsible for managing India's public debt, especially debt denominated in the domestic currency. The debt of the state governments, on the other hand, is managed by the RBI under bilateral agreements. Source: ForumIAS Blog





Environment

Q.1) With reference to vaquita porpoise, consider the following statements:

- 1. It is the world's smallest cetacean.
- 2. It is listed as critically endangered in the IUCN red list of species.
- 3. One of its habitats is along India's Western coast

Which of the statements given above is/are correct?

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

Answer: a

- **Statement 1 is correct**: The vaquita (Phocoena sinus) is the world's smallest cetacean. Its name means "little cow" in Spanish.
- **Statement 2 is correct**: It is listed as Critically Endangered in the IUCN red list of species.
- **Statement 3 is incorrect:** They are found only in the northern Gulf of California (Sea of Cortez) in Mexico. Most commonly seen in shallow waters up to 50m deep.

Source: Article

Q.2) With reference to Nitrogen, consider the following statements:

- 1. Without nitrogen plants grow slowly and produce smaller flowers and fruits.
- 2. Excessive nitrogen accumulation in streams and lakes can result in Eutrophication

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

Both statements are correct.

- **Statement 1 is correct:** Without nitrogen, an essential nutrient, plants grow slowly and produce smaller flowers and fruits. Their leaves turn yellowish and are less nutritious to insects, birds and animals.
- **Statement 2 is correct:** When excessive nitrogen accumulates in the streams, inland lakes and coastal bodies of water, it could sometimes result in eutrophication, leading to harmful algal blooms, dead zones and fish kills.

Source: Article



Q.3) With reference to Groundwater, consider the following statements:

- 1. It is more resilient to the effects of climate change than surface water.
- 2. India takes into account the contribution of groundwater to the national gross domestic product.

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: a

- **Statement 1 is correct**: Groundwater is more resilient to the effects of climate change than surface water.
- **Statement 2 is incorrect:** The contribution of groundwater to national gross domestic product is not measured in India yet.

Source: Article

Q.4) Arrange the following lakes from North to South:

- 1. Victoria
- 2. Edward
- 3. Tanganyika

Select the correct answer from the codes given below:

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

Answer: b

The correct order from North to South is -

- Lake Edward
- Lake Victoria
- Lake Tanganyika

Source: Article

Q.6) With reference to Haemophilia, consider the following statements:

- 1. It is a medical condition, mostly inherited, in which the ability of blood to clot is severely reduced.
- 2. There is no proper treatment available for Haemophilia.

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: A



Statement 1 is correct: Haemophilia is a medical condition, mostly inherited, in which the ability of blood to clot is severely reduced, so that even a minor injury can cause severe bleeding.

The most common type of Haemophilia is called Haemophilia A. This means the person does not have enough clotting factor VIII (factor eight).

Haemophilia B is less common. A person with Haemophilia B does not have enough factor IX (factor nine).

Statement 2 is incorrect: The main treatment for Haemophilia is Replacement Therapy. Concentrates of clotting factor VIII (for Haemophilia A) or clotting factor IX (for Haemophilia B) are slowly dripped or injected into a vein. These infusions help replace the clotting factor that is missing or low.

Source: <u>Indian Express</u>

International Relations

Q.7) With reference to **State Sponsors of Terrorism tag**, consider the following statements:

- 1. This tag is designated by the United Nations Security Council.
- 2. Sanctions can be placed on countries and persons that engage in certain trade with designated countries.

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 US Secretary of State (the minister primarily in charge of foreign relations) has the power to designate countries that "have repeatedly provided support for acts of international terrorism" as "State Sponsors of Terrorism".

As of now, there are four countries on the list of state sponsors of terrorism. These are Syria, Iran, North Korea and Cuba.

Statement 2 is correct: Sanctions can also be placed on countries and persons that engage in certain trade with designated countries.

Source: Indian Express

Q.8) With reference to ammonia, consider the following statements:

- a) It is a colourless gas and is used as an industrial chemical in the production of fertilisers, plastics, etc.
- b) Ammonia can occur naturally in the environment.
- c) Ammonia is not toxic to fishes.

Which of the statements given above is/are correct?

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

Answer: A



Statement 1 is correct: Ammonia is a colourless gas and is used as an industrial chemical in the production of fertilisers, plastics, synthetic fibres, dyes and other products.

Statement 2 is correct: Ammonia occurs naturally in the environment from the breakdown of organic waste matter.

Statement 3 is incorrect: If the concentration of ammonia in water is above 1 ppm it is toxic to fishes.

Source: Indian Express

Q.9) With reference to Commemorative Stamps, consider the following statements:

- 1. No stamp can be issued on a living personality.
- 2. Proposals for issue of Commemorative Postage Stamps can be sent by any citizen of India

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

Both statements are correct.

Commemorative postage stamps are issued on subjects/ themes / institutions / personalities / events that have a national or international stature or have made national/international contribution or impact.

No stamp can be issued on a living personality.

The personalities on whom commemorative postage stamp may be issued should be of national or international importance.

Also, the occasion to be commemorated must be the birth centenary or 10th /25th /50th /100th death anniversary.

Proposals for issue of Commemorative Postage Stamps may be sent by any citizen of India Stamps on personalities shall not exceed 10% of the Annual Issue Programme.

Source: Article

Q.10) Ecowrap Report is released by which of the following organisations?

- a) Reserve Bank of India
- b) Securities and Exchange Board of India
- c) State Bank of India
- d) Down To Earth

Answer: C

State Bank of India's (SBI) Economic Research Department has released the Ecowrap Report. Source: Business Standard



PRELIMS

Q.1) Which of the following is an example of plasma state of matter?

- a) Aurora
- b) Welding arcs
- c) Lightening

Select the correct answer from the codes given below:

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

Answer: d

• Nearly all the visible matter in the universe exists in the plasma state, occurring predominantly in this form in the Sun and stars and in interplanetary and interstellar space. Auroras, lightning, and welding arcs are also plasmas; plasmas exist in neon and fluorescent tubes, in the crystal structure of metallic solids, and in many other phenomena and objects. The Earth itself is immersed in a tenuous plasma called the solar wind and is surrounded by a dense plasma called the ionosphere.

Source: Article

Q.2) With reference to PM Gati Shakti, consider the following statements:

- 1. The plan is going to make use of spatial planning tools with ISRO's satellite imagery.
- 2. Natural gas pipeline network is not covered under the plan.

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: a

- **Statement 1 is correct**: It will leverage technology extensively, including spatial planning tools with ISRO's satellite imagery. This will be used for real-time monitoring of projects.
- **Statement 2 is incorrect**: The government was aiming at adding over 200 airports, helipads, and water aerodromes over the next 4-5 years besides nearly doubling the existing operational natural gas pipeline network, which is about 17,000 km (According to PNGRB as of June 30 2021). India is also targeting an increase in cargo handling at Indian ports and national waterways.

Source: Article



Q.3) With reference to Export Promotion Capital Goods (EPCG) scheme, consider the following statements:

- 1. It allows duty-free imports of capital goods subject to an export obligation.
- 2. Second-hand capital goods, without any restriction on age, may also be imported under this scheme.

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

Both statements are correct.

- **Statement 1 is correct**: Scheme allows import of capital goods for pre-production, production and post-production (including CKD/SKD thereof as well as computer software systems) at 3% customs duty, subject to an export obligation equivalent to 8 times of duty saved on capital goods imported under EPCG scheme, to be fulfilled in 8 years reckoned from Authorization issue-date.
- **Statement 2 is correct**: The capital goods shall include spares (including refurbished/reconditioned spares), tools, jigs, fixtures, dies and moulds. Second hand capital goods, without any restriction on age, may also be imported under the EPCG Scheme. The export obligation can also be fulfilled by the supply of ITA-1 items to the DTA, provided the realisation is in free foreign exchange.

Source: Article

Q.4) Which of the following rights have been included under Article 21 of the Indian Constitution?

- 1. Right to housing
- 2. Right against solitary confinement
- 3. Right to pollution-free water and air

Select the correct answer using the codes given below

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) All of the above

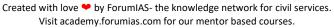
Ans.) d

Explanations

Though there is no legal right in India which guarantees adequate housing, the Supreme Court, has expanded the scope of Article 21 of the Constitution to include right to housing in it.

According to the order from the Supreme Court —Right against solitary confinement is one of the rights that fall under Article 21 (Right to Life) of the Constitution.

Article 21 of the Constitution of India, provides for right to life and also right to live with human dignity. The right to clean environment and further, pollution free water has been protected under the broad rubric of the right to life guaranteed under Article 21.





Q.5) With reference to Pardoning power of president, Consider the following statements:

- 1. Respite means delay allowed in the execution of a sentence especially that for a death sentence for a temporary period.
- 2. Remission means reducing the quantum or degree of punishment of the convicted person considering special circumstances.

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

- A reprieve means a delay allowed in the execution of a sentence especially that for a death sentence for a temporary period. The purpose of it enables the guilty person to seek presidential pardon or any other legal remedy to prove himself innocent. Respite which means reducing the quantum or degree of punishment of the convicted person considering special circumstances such as in the case of pregnancy, the death penalty may be commuted to imprisonment for life.
- Remission means changing the quantum of the punishment without changing its nature. Section 432 of the Code of Criminal Procedure, 1973 provides the power to suspend or remit sentences of punishment by the appropriate government. It states that the appropriate government with or without conditions may at any time accept, suspend or remit the punishment for an offence wholly or any part of the punishment.

Q.6) With reference to Polio, consider the following statements:

- 1. The virus is transmitted by person-to-person mainly through the faecal-oral route.
- 2. Polio is not a fatal disease.
- 3. There is no cure, but it can be prevented through Immunisation.

Which of the statements given above is/are correct?

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

Answer: D

Statement 1 is correct: The virus is transmitted by person-to-person mainly through the faecal-oral route and less frequently, by a common vehicle (for example, through contaminated water or food).

Statement 2 is incorrect: In rare cases, polio infection causes permanent loss of muscle function (paralysis). Polio can be fatal if the muscles used for breathing are paralysed or if there is an infection of the brain.

Statement 3 is **correct**: There is no cure, but it can be prevented through Immunisation.

Source: Indian Express



Q.7) Which of the following is /are part of capital goods?

- 1. Buildings
- 2. Machinery
- 3. Vehicles

Select the correct answer from the codes given below:

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

Answer: D

Capital goods are physical assets that a company uses in the production process to manufacture products and services that consumers will later use.

Capital goods include buildings, machinery, equipment, vehicles, and tools.

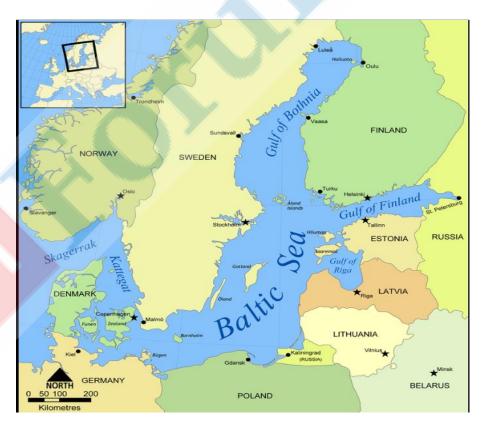
Capital goods are not finished goods, instead, they are used to make finished goods.

Source: **Business Standard**

Q.8) Gulf of Bothnia is located between which of the following countries?

- a) Turkey and Greece
- b) United States and Russia
- c) Sweden and Finland
- d) Great Britain and Europe

Answer: C



Source: PIB

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Q.9) Which of the following statements explains the Poison pill strategy?

- a) The company will pay the acquirer to go away and stop threatening the company with a hostile takeover.
- b) Company spinning off its most valued asset, in order to make the acquisition less desirable for the acquirer.
- c) Existing shareholders, excluding the acquiring entity, purchase additional shares at a discounted rate.
- d) Company will prevent a hostile takeover by initiating a reverse takeover.

Answer: C

Poison Pill is a corporate defense strategy utilized by a target company to prevent or discourage hostile takeover attempts. Under this mechanism, existing shareholders, excluding the acquiring entity purchase additional shares at a discounted rate making it difficult for the acquirer to establish a majority stake in the company.

Source: The Hindu

Q.10) With reference to Precast Concrete, consider the following statements:

- 1. It is reinforced concrete that is cast away from the building site and assembled on site.
- 2. These concretes can reduce carbon emission/reduced noise & air pollution.

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

Both statements are correct.

It is reinforced concrete that is cast away from the building site and assembled on site. **Advantages of Precast Concrete: 1)** All-weather and fast construction, **2)** Reliable quality & enhanced performance durability, **3)** Minimum user time delay and **4)** Reduced carbon emission/reduced noise & air pollution due to reduced construction activities at the site. Source: PIB





ENVIRONMENT

Q.1) Ariosoma indicum sometimes seen in news is a species of?

- a) Spider
- b) Snake
- c) Lizard
- d) Eel

Answer: d

- A group of Indian scientists have discovered a new species of eel from among specimens collected from the Kalamukku and Digha Mohana fishing harbours in Kerala and West Bengal respectively. Their study was published in the *Journal of Fish Biology* March 30, 2022.
- The newly discovered eel belongs to the Congrid eels group and has been named Ariosoma indicum. The term Indicum means that it was found in India, Anil Mohapatra, senior scientist with the Zoological Survey of India's Gopalpur-on-Sea centre and coauthor of the paper told this reporter.

Source: Article

Q.2) With reference to rice production in India, consider the following statements:

- 1. In terms of nutritional content, rice is poor in nitrogenous substances.
- 2. India is the world's largest rice producer.

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: a

- **Statement 1 is correct:** Rice is poor in nitrogenous substances with average composition of these substances being only 8% and fat content or lipids only negligible, i.e., 1% and due to this reason, it is considered as a complete food for eating.
- Statement 2 is incorrect: India is the world's second-largest rice producer after China.

Source: Article

Q.3) With reference to James Webb Space Telescope, consider the following statements:

- 1. It will make observations primarily in the infrared range.
- 2. Its operating temperature is less than that of the Hubble telescope.

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

Both statements are correct.



- Statement 1 is correct: The JWST will observe primarily in the infrared range and provide coverage from 0.6 to 28 microns.
- Statement 2 is correct: The operating temperature of JWST is around minus 233 degree Celsius, while Hubble operates at 20 degree Celsius.

Source: Article

Q.4) Consider the following statements:

- 1. As a boy, he was called Tyag Mal because of his ascetic nature.
- 2. Raja Ram Singh sought his help to broker a truce with the Ahom king.
- 3. He preached against the tradition of worshipping at the graves of pirs and fagirs.

Which of the following personality is described in the statements above?

- a) Guru Tegh Bahadur
- b) Maharaja Ranjit Singh
- c) Guru Gobind Singh
- d) Hari Singh nalwa

Answer: a

- As a boy, Tegh Bahadur was called Tyag Mal because of his ascetic nature. He spent his early childhood in Amritsar under the tutelage of Bhai Gurdas, who taught him Gurmukhi, Hindi, Sanskrit, and Indian religious philosophy, while Baba Budha trained him in swordsmanship, archery and horse-riding.
- While the guru was on the way back from Dhaka, Raja Ram Singh sought his help to broker a truce with the Ahom king. Gurdwara Dhubri Sahib on the banks of the Brahmaputra commemorates this peace accord. The guru was also honoured at Guwahati's Kamakhya temple.
- Guru Tegh Bahadur who started travelling extensively through Malwa and Majha, first came into conflict with the authorities when he started questioning the tradition of worshipping at the graves of pirs and faqirs. He preached against this practice, and urged his followers to be 'nirbhau' (fearless) and 'nirvair' (without envy).

Q.5) Consider the following statements regarding Ways and Means Advances:

- 1. It is a long-term loan facility for the government with RBI.
- 2. The facility is exclusive to the Union Government.
- 3. RBI charges interest equal to repo rate on loans given under WMA.

Which of the above statements is/are correct?

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

Answer: c

- **Statement 1 is incorrect.** It is a temporary short term loan facility offered by RBI to the government where the term of loan is just 90 days. The WMA scheme was designed to meet temporary mismatches in the receipts and payments of the government.
- **Statement 2 is incorrect.** WMA is not exclusive to the Union government but is also available to state governments.





• **Statement 3 is correct.** Interest rate for WMA is currently charged at the repo rate. If the WMA is extended for more than 90 days, it will be treated as an overdraft which is charged above repo rate.

Q.6) INS Vagsheer was recently seen in news is a

- a) Nuclear submarines
- b) Kalvari class submarines
- c) Newly proposed aircraft carrier
- d) Off shore patrol vehicle

Answer: B

The sixth and last submarine of the Indian Navy's Kalvari class submarines of Project 75 named Vagsheer has been launched recently.

The first of the Project - 75 submarines was commissioned into the Navy in December 2017 and presently four submarines of this Project are in commission in the Indian Navy. The fifth submarine is progressing with the Sea Trials and is likely to be delivered this year. The sixth submarine will now commence setting to work of various equipment and their harbour trials. The crew will thereafter sail the submarine for the rigorous Sea Acceptance Trials after which the submarine would be delivered to the Indian Navy by late next year.

Source: PIB

Q.7) With reference to Colombo Security Conclave, consider the following statements:

- 1. It is a Ministry level meeting on territorial security.
- 2. India, Maldives, Mauritius and Sri Lanka are the members of the conclave.

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: India, Maldives, and Sri Lanka began a National Security Advisor (NSA)-level trilateral meeting on maritime security cooperation in 2011.

Following a halt from 2014-2019, the trilateral meeting was resumed in 2020, when the decision was taken to establish the Colombo Security Conclave(CSC).

The conclave aims to forge closer cooperation on maritime and security matters among the the member countries.

Statement 2 is correct: Mauritius was included as a new member of the conclave in the recent fifth edition of Colombo Security Conclave.

With this, India, Maldives, Mauritius and Sri Lanka became the members of the conclave. Source: PIB





Q.8) Consider the following statements;

- 1. He became a monk at the age of 18.
- 2. He was nicknamed "Manyam Veerudu" (Hero of the Jungle) by local villagers for his heroic exploits.
- 3. His discontent towards the British led to the Rampa Rebellion.

Which of the following personality is described in the statements above?

- a) Uyyalawada Narasimha Reddy
- b) Kalluri Chandramouli
- c) Alluri Sitarama Raju
- d) Gottipati Brahmaiah

Answer: C

Source: The Hindu

Q.9) With reference to Cape Town Convention, consider the following statements;

- 1. The convention intends to standardize transactions involving movable property.
- 2. India is not a party to this convention.

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: a

Statement 1 is correct: The Cape Town Convention on International Interests in Mobile Equipment, or Cape Town Convention is an international treaty intended to standardize transactions involving movable property.

The treaty creates international standards for registration of contracts of sale, security interests, leases and conditional sales contracts, and various legal remedies for default in financing agreements, including repossession and the effect of particular states' bankruptcy laws.

The Convention and the Protocol, were adopted under the joint auspices of the International Civil Aviation Organisation (ICAO) and the International Institute for the Unification of Private Law (UNIDROIT).

Statement 2 is incorrect: India is a party to the convention.

Source: The Hindu



Q.10) With reference to Digital Banking Units(DBUs), consider the following statements:

- 1. DBUs can enable last-mile financial inclusion.
- 2. A bank can offer specialized digital products at any time all year from these units.

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

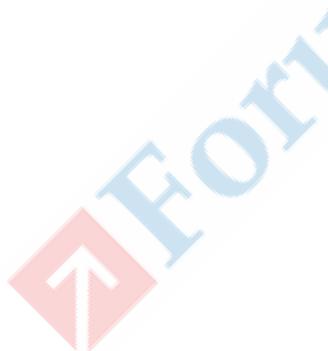
Both statements are correct.

DBU is a specialized business unit of a bank that houses certain minimum digital banking products and services. A bank can offer specialized digital products at any time all year from these units and also provide existing financial services products

DBUs can enable last-mile financial inclusion as a lender can reach a wider customer base in a more cost-effective manner.

On the other hand, the limitations of DBU include low public awareness and internet penetration in lower-tier cities.

Source: Indian Express





ECONOMY

Q.1) With reference to procurement of wheat in India, consider the following statements:

- 1. The Food Corporation of India (FCI) along with State Government Agencies (SGAs) procures wheat.
- 2. The Government declares a Minimum Support Price (MSP) before the sowing of the crop every year on the recommendation of the Commission for Agricultural Cost and Prices (CACP).

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

Both statements are correct.

- **Statement 1 is correct:** The Food Corporation of India(FCI) along with State Government Agencies (SGAs) procures wheat. The FCI's wheat procurement system can be decentralized (DCP) or centralized (non-DCP).
- **Statement 2 is correct**: The government buys wheat at the MSP which it declares before the sowing of the crop every year on the recommendation of the Commission for Agricultural Cost and Prices (CACP).

Source: Article

Q.2) With reference to India Post Payments Bank (IPPB), consider the following statements:

- 1. It is a wholly-owned subsidiary of Department of Post, with 100 percent Government of India equity.
- 2. It is the only bank in India that is directly regulated and governed by the Ministry of Finance.

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: a

- **Statement 1 is correct**: India Post Payments Bank (IPPB) has been established under the Department of Posts, Ministry of Communication with 100% equity owned by Government of India. IPPB was launched by the Prime Minister on September 1, 2018. The bank has been set up with the vision to build the most accessible, affordable and trusted bank for the common man in India.
- **Statement 2 is incorrect**: It is also regulated by the RBI.

Source: Article



Q.3) Prunus dinabandhuana sometimes seen in news is a species of?

- a) Bird
- b) Plant
- c) Frog
- d) Lizard

Answer: b

• Scientists from Manipur have found a new plant species of 'Cherry Blossom'. They have named the plant species - 'Prunus dinabandhuana' as a mark of respect and for the outstanding contributions of scientist Dr Dinabandhu Sahoo.

Q.4) With reference to Russia's newly developed Sarmat missile, consider the following statements:

- 1. The missile has been named after nomadic tribes that roamed the steppes of present-day Southern Russia, Ukraine and Kazakhstan in the early medieval period.
- 2. It is capable of carrying smaller hypersonic boost-glide vehicles.

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

Both statements are correct.

- **Statement 1 is correct**: Sarmat is an Inter Continental Ballistic Missile(ICBM) developed by Russia. The missile has been nicknamed as "Satan II" by the West. It is named after nomadic tribes that roamed the steppes of present-day Southern Russia, Ukraine and Kazakhstan in the early medieval period.
- **Statement 2 is correct**: It will be the first Russian missile which can carry smaller hypersonic boost-glide vehicles. These are manoeuvrable and hard to intercept.

Source: Article

Q.5) With reference to the International Energy Agency, consider the following statements:

- a) It was established based on the framework of the Organisation for Economic Co-operation and Development (OECD).
- b) The IEA releases World Energy Outlook.
- c) India is a fulltime member of IEA.

Which of the statements given above is/are correct?

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

Answer: a



- **Statement 1 is correct**: It was established in the framework of the Organisation for Economic Co-operation and Development (OECD) in 1974 in the wake of the 1973 oil crisis.
- **Statement 2 is correct**: IEA is best known for the publication of its annual World Energy Outlook.
- **Statement 3 is incorrect**: Recently, the International Energy Agency (IEA) has invited India to become its full-time member. If accepted, India will have to raise strategic oil reserves to 90 days' requirement.

Q.6) With reference to Fincluvation, consider the following statements:

- 1. It is a method to collaborate with the Fintech Startup community to co-create and innovate solutions for financial inclusion.
- 2. It is launched by the Reserve Bank of India.

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: a

Statement 1 is correct: Fincluvation is a method to collaborate with the Fintech Startup community to co-create and innovate solutions for financial inclusion.

Statement 2 is incorrect: It is launched by the India Post Payments Bank(IPPB) and Department of Post(DoP).

Source: PIB

Q.7) Consider the following statements regarding Genetically modified mosquitoes:

- 1. These are the female mosquitoes whose genome has been altered.
- 2. The desired trait of these GMM is to reduce the transmission of mosquito-borne human diseases.
- 3. With each generation mates, more females die, and the A. aegypti population in the area will decrease.

Which of the above statements is/are correct?

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

Answer: b

Statement 1 is incorrect: These are male mosquitoes whose genome has been altered using recombinant DNA technology. Their genome is altered in a way to favour the few desired physiological traits and the generation of desired biological products.

Statement 2 is correct: The desired trait of these GMM is to reduce the transmission of mosquito-borne human diseases.

Statement 3 is correct: With each generation mates, more females die, and the A. aegypti population in the area will decrease.

Source: DTE



Q.8) With reference to Special Purpose Acquisition Companies(SPACs), consider the following statements:

- 1. A SPAC aims to raise money in an Initial Public Offering(IPO) without any operations or revenues.
- 2. SPACs are essentially shell companies.

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

Both statements are correct.

A SPAC or a Blank-Cheque Company is an entity specifically set up with the objective of acquiring a firm in a particular sector.

Working of SPAC: A SPAC aims to raise money in an Initial Public Offering(IPO) without any operations or revenues. The money that is raised from the public is kept in an escrow account which can be accessed while making the acquisition.

If the acquisition is not made within two years of the IPO, the SPAC is delisted and the money is returned to the investors.

SPACs are essentially shell companies. But a key factor that makes them attractive to investors is the people who sponsor them. Globally, prominent names such as tennis star Serena Williams, Dell CEO have participated in SPACs.

Source: Indian Express

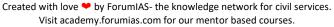
Q.9) India's First pure Green Hydrogen plant has been commissioned in which of the following state?

- a) Kerala
- b) Assam
- c) Karnataka
- d) Meghalaya

Answer: B

Oil India Limited(OIL) has commissioned India's First pure Green Hydrogen pilot plant at its Jorhat Pump Station in Assam.

Source: PIB





Q.10) With reference to Blue Blob, consider the following statements:

- 1. Blue blob increases the melting of Arctic sea ice.
- 2. It is a region of cooling water in the North Atlantic Ocean near Iceland.

Which of the statements given above is/are correct?

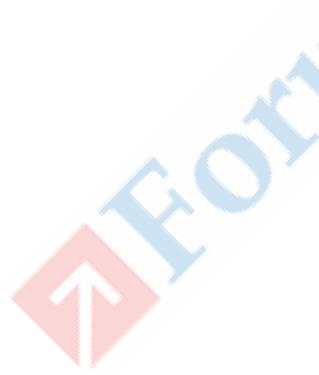
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: B

Statement 1 is incorrect: Blue blob may have helped temporarily stall the melting of Arctic sea ice.

Statement 2 is correct: According to a recent Research, a region of cooling water in the North Atlantic Ocean near Iceland.

Source: The Hindu





PRELIMS

Q.1) With reference to an Overseas Elector, consider the following statements:

- 1. He is a citizen of India who has not acquired the citizenship of other country.
- 2. A person should have been out of India for a minimum period of six months so as to apply for registration as an overseas elector.

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: a

- **Statement 1 is correct:** An overseas elector is a person who is a citizen of India and who has not acquired citizenship of any other country and is otherwise eligible to be registered as a voter and who is absenting from his place of ordinary residence in India owing to his employment, education or otherwise is eligible to be registered as a voter in the constituency in which his place of residence in India as mentioned in his passport is located. According to the provisions of Section 20A of the Representation of People Act, 1950, an NRI settled in foreign land can become an elector in electoral roll in India.
- **Statement 2 is incorrect:** No such minimum period has been prescribed for which one should be out of country so as to apply for registration as overseas elector.

Source: Article

Q.2) With reference to Seafloor spreading, consider the following statements:

- 1. Seafloor spreading and other tectonic activity processes are the result of mantle convection
- 2. It influences sea level and carbon cycle.

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

Both statements are correct.

- **Statement 1 is correct:** Seafloor spreading is a geologic process in which tectonic plates—large slabs of Earth's lithosphere—split apart from each other. Seafloor spreading and other tectonic activity processes are the result of mantle convection. Mantle convection is the slow, churning motion of Earth's mantle.
- **Statement 2 is correct**: As per a study, seafloor spreading influences sea level and carbon cycle. For example, faster rates mean more volcanic activity, which injects greenhouse gases into the atmosphere.

Source: Article



Q.3) Which of the following is/are the problems associated with Metaverse?

- 1. Emergence of virtual nation-states
- 2. Large environmental cost
- 3. Commodification of human interaction

Select the correct answer from the codes given below:

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

Answer: d

- **Emergence of virtual nation-states**: Metaverses will bring up challenging questions of jurisdiction and governance. In the distant future, virtual worlds could someday grow into alternatives to the nation state itself. Big Tech firms already have revenues and valuations higher than GDPs of several small countries. If they all get to operate full virtual worlds of their own, it could require a large-scale rethinking of the very foundations of technology law.
- **Cost to the environment**: The metaverse, as it is promised, will combine the technologies of cloud computing, big data, advanced AI systems, AR/VR, blockchains, NFTs and much more. Each of these technologies requires tremendous processing power and, consequently, would lead to a great cost in terms of the environment. The level of resource extraction required to run such a huge system smoothly is too gigantic to comprehend. And that is not even taking into account the exploitation of millions of underpaid workers upon which a lot of the critical infrastructure and supply chains of Big Tech depend.
- Commodification of human interaction: Metaverse indicates the next level of commodification of human interaction, where every single action, down to the tiniest levels, is tracked and surveilled for profits, and designed in a way to maximise data collection.

Source: Article

Q.4) Which of the following agencies are legally authorized for phone tapping in India?

- 1. Delhi Police Commissioner
- 2. Directorate of Signal Intelligence
- 3. Defence Intelligence Agency

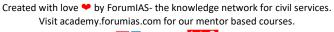
Select the correct answer from the codes given below:

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

Answer: a

Following are authorized to tap phones in India:

- **At state level**: In the states, police have the power to tap phones.
- At the Centre, 10 agencies are authorized to do so: Intelligence Bureau, CBI, Enforcement Directorate, Narcotics Control Bureau, Central Board of Direct Taxes, Directorate of Revenue Intelligence, National Investigation Agency, R&AW, Directorate of Signal Intelligence, and the Delhi Police Commissioner. Tapping by any other agency would be considered illegal.





Q.5) Consider the following:

- 1. Coking coal
- 2. Iron ore scrap
- 3. Limestone

Which of the above is/are the key raw materials to manufacture steel?

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

Answer: d

• For the production of steel, there is a need for iron raw material in the form of iron ore or scrap metal, together with alloying elements so that the material acquires the desired properties. In the production of ore-based steel, coal is also needed as a reducing agent and limestone as a slag former.

Q.6) With reference to **Europa**, consider the following statements:

- 1. It is considered one of the most promising places to find present-day environments that are suitable for life beyond the Earth.
- 2. It is located in Ursa Major constellation.

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: a

Statement 1 is correct: Europa has a very thin oxygen atmosphere; it is considered one of the most promising places in the solar system to find present-day environments that are suitable for life beyond the Earth.

It is also believed that underneath Europa's icy surface the amount of water is twice that on Earth.

Statement 2 is incorrect: Europa is the sixth-largest moon in the solar system and Jupiter's fourth-largest satellite. It was discovered in 1610 by Galileo Galilei.

Source: Indian Express

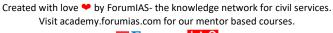
Q.7) Shinku-La Pass is located between which of the following states/UTs?

- a) Assam and Sikkim
- b) Meghalaya and Arunachal Pradesh
- c) Ladakh and Himachal Pradesh
- d) Jammu and Kashmir and Ladakh

Answer: C

Shinku-La Pass is a mountain pass between Zanskar Valley in Ladakh and Lahaul Valley in Himachal Pradesh.

This pass may be considered as an entry point to Lugnak Valley in Zanskar.







Q.8) Which of the following is/are the impact of Noise pollution on human health?

- 1. Aggressive behaviour of individual.
- 2. Increase blood pressure levels.
- 3. Increases heartbeat rate.

Select the correct answer from the codes given below;

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

Answer: D

Effects of Noise pollution on human health:

Hearing Problems: Any unwanted sound that our ears have not been built to filter can cause problems within the body. Constant exposure to loud levels of noise can easily result in the damage of our eardrums and loss of hearing. It also reduces our sensitivity to sounds that our ears pick up unconsciously to regulate our body's rhythm.

Psychological Issues: Studies show that the occurrence of aggressive behaviour, disturbance of sleep, constant stress, fatigue, and hypertension can be linked to excessive noise levels. These, in turn, can cause more severe and chronic health issues later in life.

Sleeping Disorders: Loud noise can certainly hamper sleeping pattern and may lead to irritation and uncomfortable situations. It may lead to problems related to fatigue and individual's performance goes down.

Cardiovascular Issues: Blood pressure levels, cardiovascular disease, and stress-related heart problems are on the rise. Studies suggest that high-intensity noise causes high blood pressure and increases heartbeat rate as it disrupts the normal blood flow.

Source: Indian Express



Q.9) The terms Habb-e-Bukhar, Kabasura Kudineer is associated with which of the following?

- a) Books belong to Akbar Period
- b) New species discovered in Western Ghats
- c) AYUSH medicines used during pandemic
- d) Tribal people in Afghanistan

Answer: C

Kabasura Kudineer: It is a Siddha medicine for the treatment of fevers. It is now being used to treat asymptomatic, mild, and moderate COVID-19 infection cases.

It increases immunity and acts as an immune-modulator as this virus adversely affects the immune response.

Habb-e-Bukhar: It is an Unani drug given to Covid-19 patients who are undergoing high fever.

Source: PIB

Q.10) With reference to Western Disturbances, consider the following statements:

- 1. These aid monsoonal rainfall in northwest India.
- 2. These are storms that originate in the Caspian or Mediterranean Sea.

Which of the statements given above is/are correct?

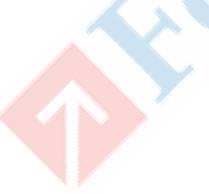
- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: B

Statement 1 is incorrect: Western Disturbances bring non-monsoonal rainfall to northwest India, according to the India Meteorological Department (IMD).

Statement 2 is correct: Western disturbances are storms that originate in the Caspian or Mediterranean Sea.

Source: Indian Express





POLITY AND GOVERNANCE

Q.1) The Olga Tellis judgement sometimes in news is related to which of the following?

- a) Right to Freedom of Religion
- b) Right to Education
- c) Right to Freedom of Speech
- d) Right to Livelihood

Answer: D

• The Olga Tellis vs Bombay Municipal Corporation judgment in 1985 ruled that eviction of pavement dwellers using unreasonable force, without giving them a chance to explain is unconstitutional. It is a violation of their right to livelihood.

Source: Article

Q.2) With reference production of coal and coal reserves in India, consider the following statements:

- 1. The Coal resources of India are available in older Gondwana Formations of peninsular India and younger Tertiary formations of north-eastern region.
- 2. Lignite is the best quality of coal with the highest carbon content.

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: A

- **Statement 1 is correct:** The Coal resources of India are available in older Gondwana Formations of peninsular India and younger Tertiary formations of north-eastern region. Based on the results of Regional/Promotional Exploration, where the boreholes are normally placed 1-2 Km apart, the resources are classified into 'Indicated' or 'Inferred' category
- **Statement 2 is incorrect**: Anthracite is the best quality of coal which carries 80 to 95 per cent carbon content. It ignites slowly with a blue flame. It has the highest calorific value. It is found in small quantity in Jammu and Kashmir.

Source: Article



Q.3) With reference to Wet bulb temperature, consider the following statements:

- 1. It is the temperature of adiabatic saturation.
- 2. The wet bulb temperature is always lower than the dry bulb temperature but will be identical with 100% relative humidity.

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

- **Statement 1 is correct**: The Wet Bulb temperature is the temperature of adiabatic saturation. This is the temperature indicated by a moistened thermometer bulb exposed to the air flow.
- **Statement 2 is correct**: The wet bulb temperature is always lower than the dry bulb temperature but will be identical with 100% relative humidity (the air is at the saturation line). A wet-bulb temperature of 31°C is exceedingly harmful to humans, while a temperature of 35°C is unsurvivable for more than 6 hours.

Source: Article

Q.4) With reference to Heatwaves and Urban Heat Islands, consider the following statements:

- 1. Heat islands can occur year-round during the day or night.
- 2. The maximum heat island effect is often three to five hours after dawn.

Which of the statements given above is/are incorrect?

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

Answer: b

- Statement 1 is correct: Heat islands can occur year-round during the day or night.
- **Statement 2 is incorrect:** Urban-rural temperature differences are often largest during calm, clear evenings. This is because rural areas cool off faster at night than cities, which retain much of the heat stored in roads, buildings, and other structures. As a result, the largest urban-rural temperature difference, or maximum heat island effect, is often three to five hours after sunset.

Source: Article



Q.5) With reference to Lithium, consider the following statements:

- 1. It has the lowest density of all metals.
- 2. It is used in rechargeable batteries for mobile phones, laptops, digital cameras and electric vehicles.
- 3. Lithium is abundantly available in India.

Which of the statements given above is/are incorrect?

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

Answer: c

Lithium is an alkali metal. It has the lowest density of all metals.

- The most important use of lithium is in rechargeable batteries for mobile phones, laptops, digital cameras and electric vehicles.
- But as well as the lithium-ion batteries for which it has grown in popularity, the highly reactive and flammable alkali mineral - sometimes referred to as "white gold" - is also used in ceramics and glass, lubricating greases, polymer production, and air treatment.
- According to the latest figures from the US Geological Survey (USGS), global lithium production in 2018 reached around 85,000 tonnes - up from 69,000 in the previous year.
- Continued exploration efforts have seen global lithium resource estimates reach 62 million tonnes - a significant proportion of which are located in South America's "lithium triangle" - an area encompassing Chile, Argentina and Bolivia.
- India currently imports all its lithium needs.
- It imported lithium batteries worth \$1.2 billion in fiscal 2019, up from \$384 million in
- Recently researchers at the Atomic Minerals Directorate, a unit of India's Atomic Energy Commission, have estimated lithium reserves of 14,100 tonnes in a patch of land surveyed in Mandya, 100 km from Bengaluru.

Q.6) Which of the following rivers is/are the tributary of Krishna river?

- 1. Musi
- 2. Hemavati
- 3. Mallaprabha

Select the correct answer from the codes given below;

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

Answer: C

Krishna River originates near Mahabaleshwar (Satara) in Maharashtra. It is the second biggest river in peninsular India after the Godavari River.

Tungabhadra, Mallaprabha, Koyna, Bhima, Ghataprabha, Yerla, Warna, Dindi, Musi and Dudhganga are the tributaries of Krishna river.

Note: Hemavati, Kabini, Suvarnavathi and Bhavani are tributaries of Cauvery River.

Source: Indian Express





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Q.7) With reference to Kuril Island Dispute, consider the following statements:

- 1. The island chain is part of the belt of geologic instability circling the Pacific Ring of Fire.
- 2. The island is disputed between Japan and China.

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: a

Statement 1 is correct: The Kuril Islands are stretched from the Japanese island of Hokkaido to the southern tip of Russia's Kamchatka Peninsula separating the Okhotsk Sea from the North Pacific Ocean.

The chain is part of the belt of geologic instability circling the Pacific (Ring of Fire) and contains at least 100 volcanoes, of which 35 are still active, and many hot springs.

Statement 2 is incorrect: The island is disputed between Japan and Russia.

Source: The Hindu

Q.8) With reference to Raisina Dialogue, consider the following statements:

- 1. It is a multilateral conference committed to addressing the most challenging issues facing the global community.
- 2. It is hosted by Ministry of Finance.

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: A

Statement 1 is correct: It is a multilateral conference committed to addressing the most challenging issues facing the global community.

Statement 2 is incorrect: The conference is hosted by the Observer Research Foundation in collaboration with the Ministry of External Affairs.

Source: All India Radio

Q.9) All-India Household Consumer Expenditure Survey is conducted by which of the following organisation?

- a) National Sample Survey Organisation (NSSO)
- b) National Statistical Office (NSO)
- c) NITI Aayog
- d) Central Statistics Office (CSO)

Answer: B

The All-India Household Consumer Expenditure Survey, usually conducted by the National Statistical Office (NSO) every five years, is set to resume this year after a prolonged break.

Source: The Hindu



Q.10) With reference to Aeroponics, consider the following statements:

- 1. In this method the roots are suspended in the air and plants grow in a humid environment without soil.
- 2. This technique enables farmers to control humidity, temperature, pH levels and water conductivity inside a greenhouse.

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

Both the statements are correct.

Aeroponics is an environment-friendly way of farming in which the roots are suspended in the air and plants grow in a humid environment without soil.

It is a variation of hydroponics where both growing medium and flowing water are absent. The roots of the plants, in this method, are sprayed with water and nutrient solution.

This technique enables farmers to control humidity, temperature, pH levels and water conductivity inside a greenhouse.

Source: <u>Indian Express</u>

PIB





PRELIMS

Q.1) With reference to One District One Product (ODOP) Scheme, consider the following statements:

- 1. The One District One Product initiative has been operationally merged with the 'Districts as Export Hub' initiative.
- 2. One of the aims of ODOP is to identify one product per district based on the potential and strength of a district and national priorities.

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

- **Statement 1 is correct:** The One District One Product initiative has been operationally merged with the 'Districts as Export Hub' initiative. Later is implemented by the Director-General of Foreign Trade (DGFT), Department of Commerce.
- **Statement 2 is correct:** Aim of the ODOP is to identify one product per district based on the potential and strength of a district and national priorities. A cluster for that product will be developed in the district and market linkage will be provided for that.

Source: Article

Q.2) With reference to Free Trade Agreements, consider the following:

- 1. Under FTAs, two or more countries or trading blocs primarily agree to reduce or eliminate customs tariff and non-tariff barriers on substantial trade between them.
- 2. FTAs and Preferential Trade Agreements (PTAs), both maintain a positive list of products on which duty is to be reduced.

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: a

- **Statement 1 is correct**: FTAs are arrangements between two or more countries or trading blocs that primarily agree to reduce or eliminate customs tariff and non-tariff barriers on substantial trade between them, but (in contrast to a common market) capital or labor may not move freely.
- **Statement 2 is incorrect:** The key difference between an FTA and a PTA is that while in a PTA there is a positive list of products on which duty is to be reduced; in an FTA there is a negative list on which duty is not reduced or eliminated.



Q.3) With reference to Hubble Space Telescope, consider the following statements:

- 1. Hubble currently sits at the Earth-Sun L2 Lagrange point.
- 2. While Hubble can see the equivalent of toddler galaxies, the James Webb Space Telescope will be able to see baby galaxies.

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**: Hubble orbits the Earth at an altitude of ~570 km. Webb will not orbit the Earth, instead it will sit at the Earth-Sun L2 Lagrange point, 1.5 million km away
- Statement 2 is correct: Hubble can see the equivalent of "toddler galaxies", On the other hand, Webb will be able to see "baby galaxies". This is because Webb is an infrared telescope, and can see distant objects which are very dim at visible wavelengths of light.

Source: Article

Q.4) Arrange the following islands from North to South:

- 1. Honshu
- 2. Kvushu
- 3. Hokkaido
- 4. Shikoku

Select the correct answer from the codes given below:

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

Answer: b

The correct order from North to South is -

- Hokkaido
- Honshu
- Shikoku
- Kyushu



Q.5) Which of the following practice(s) does not use soil as a medium?

- 1. Aquaponics
- 2. Hydroponics
- 3. Aeroponics

Select the correct answer from the codes given below:

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

Answer: d

- **Aquaponics**: Aquaponics involves growing fishes and plants together within the same environment, which is considered to be a sustainable process.
- **Hydroponics**: On the other hand, hydroponics is a gardening method that allows for plants to be grown without the use of soil.
- **Aeroponics:** Aeroponics is the practice of growing plants in an air or mist environment without the use of any substrate

Source: Article

Q.6) With reference to Blue Stragglers, consider the following statements:

- 1. These are hot, blue, massive stars and seem to have a different trajectory of evolution from the norm.
- 2. Blue Stragglers are not massive and less energetic.

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: A

Statement 1 is correct: Blue Straggler Stars are hot, blue, massive stars and seem to have a different trajectory of evolution from the norm.

Statement 2 is incorrect: Blue Stragglers are more massive and energetic.

Source: The Hindu

Q.7) Which of the following is/are the advantages of Vertical Farming?

- 1. Resistant to weather disruptions
- 2. Prevent ecosystem disruption
- 3. Less disruptive to the native plants

Select the correct answer from the codes given below;

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

Answer: D

All are advantages of vertical farming.

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Increased crop yield: The main advantage of utilizing vertical farming technologies is the increased crop yield that comes with a smaller unit area of land requirement. The increased ability to cultivate a larger variety of crops at once is because crops do not share the same plots of land. Vertical farming allows for, in some cases, over ten times the crop yield per acre than traditional methods.

Resistant to weather disruptions: Crops are resistant to weather disruptions because of their placement indoors. In other words less crops are lost to extreme or unexpected weather occurrences. The issue of adverse weather conditions is especially relevant for countries depending upon monsoon like India.

Prevent ecosystem disruption: Because of its limited land usage, vertical farming is less disruptive to the native plants and animals, leading to further conservation of the local flora and fauna. Traditional farming is often invasive to the native flora and fauna because it requires such a large area of arable land.

Environment conservation: Vertical farming can help in preventing climate change and conserve the environment. Deforestation and desertification caused by agricultural encroachment on natural biomes could be avoided. Producing food indoors reduces or eliminates conventional plowing, planting, and harvesting by farm machinery, protecting soil, and reducing emissions.

Source: Indian Express

Q.8) India Patents report is released by which of the following organisation?

- a) Department for Promotion of Industry and Internal Trade
- b) National Association of Software and Services Companies (NASSCOM)
- c) NITI Aayog
- d) Ministry of Commerce and Industry

Answer: B

The National Association of Software and Services Companies(NASSCOM) is releasing the India Patents report.

The report is one among a series of Nasscom's Emerging Technology-focused reports that aim to understand how Indian technology companies are creating IP assets in their largest market.

Source: The Hindu

Q.9) Earendel was recently seen in news is related to which of the following statements;

- a) Newly planned mission of NASA to Mercury
- b) A habitable planet discovered by Indian Scientists
- c) Most distant star discovered by the Hubble Space Telescope
- d) A potentially hazardous Near earth Asteriod

Answer: C

NASA's Hubble Space Telescope has discovered the farthest star ever seen to date. They have nicknamed that star as "Earendel".

Source: Indian Express



Q.10) With reference to Malaria, consider the following statements:

- 1. India is the only high endemic country which has reported a decline of 17.6% in 2019 as compared to 2018.
- 2. Plasmodium falciparum and Plasmodium vivax poses low Malaria threat compares to other malaria parasites.

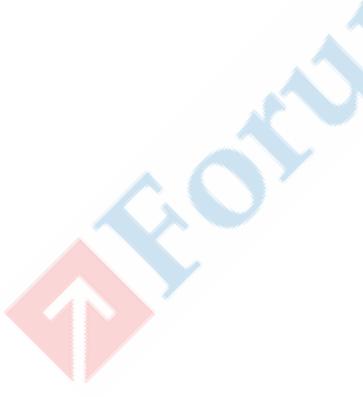
Which of the statements given above is/are incorrect?

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

Answer: b

- Statement 1 is correct: Heat islands can occur year-round during the day or night.
- **Statement 2 is incorrect**: There are 5 parasite species that cause malaria in humans, and 2 of these species Plasmodium falciparum and Plasmodium vivax pose the greatest threat.

Source: <u>Indian Express</u>





PRELIMS

Q.1) With reference to Cobalt, consider the following statements:

- 1. The largest global deposits of Cobalt are in China.
- 2. There is no production of cobalt in the India from primary cobalt resources.

Which of the statements given above is/are correct?

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

Answer: b

- **Statement 1 is incorrect**: It is found all over the world in countries such as in Australia, Canada, China, Cuba, South Africa, the United States and the Philippines. But 70% of the total supply comes from one country, the Democratic Republic of the Congo (DRC). Also, the world's largest deposit of Cobalt is present in DRC.
- Statement 2 is correct: Presently, there is no production of cobalt in the country from primary cobalt resources. The demand for cobalt is usually met through imports. Refining capacity of cobalt in India is estimated at about 2,060 tonnes per year.

Source: Article

Q.2) Restriction of Floor Space Index to low levels can create which of the following issues?

- 1. Push development to the peri-urban areas
- 2. Reduction of availability of serviced land within cities
- 3. Increases commuting distances

Select the correct answer from the codes given below:

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

Answer: d

• Restricting the FSI to such low levels **a)** creates distortions in the land market, **b)** pushes development to the peri-urban areas, **c)** reduces availability of serviced land within cities, particularly for low-income groups, **d)** increases commuting distances and their environmental costs.

Source: Article



Q.3) International Cyber Engagement Strategy sometimes seen in news has been launched by which of the following countries?

- a) Australia
- b) USA
- c) China
- d) India

Answer: a

• India will now be included in a core Australian initiative called the International Cyber Engagement Strategy — it began in 2017 to actively conduct capacity-building arrangements in Indonesia, Singapore and Thailand, and support similar activities in Malaysia, Vietnam and Cambodia. In 2021 Australia added critical technologies to the initiative, making it important to the bilateral partnership with India and to the Quad.

Source: Article

Q.4) With reference to mRNA vaccine, consider the following statements:

- 1. To produce an mRNA vaccine, scientists produce a synthetic version of the mRNA that a virus uses to build its infectious proteins.
- 2. mRNA in such vaccines can also trigger the innate immune system.

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

- **Statement 1 is correct**: To produce an mRNA vaccine, scientists produce a synthetic version of the mRNA that a virus uses to build its infectious proteins.
- **Statement 2 is correct**: There are two parts to our immune system: innate (the defences we're born with) and acquired (which we develop as we come into contact with pathogens). Interestingly, mRNA in vaccines could also trigger the innate immune system, providing an extra layer of defence without the need to add adjuvants.

Source: Article

Q.5) With reference to the Sun, consider the following statements:

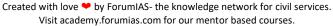
- 1. The Sun rotates more quickly at its equator than at its poles.
- 2. Sunspots are darker and at higher temperature than other areas of the Sun.

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: a

• **Statement 1 is correct.** Since the Sun is a ball of gas/plasma, it does not have to rotate rigidly like the solid planets and moons do. In fact, the Sun's equatorial regions rotate faster (taking only about 24 days) than the polar regions (which rotate once in more than 30 days).





- o This differential rotation persists to about a third of the way inside the Sun, where the rotation becomes uniform from pole to pole.
- **Statement 2 is incorrect:** Sunspots are areas that appear dark on the surface of the Sun. They appear dark because they are cooler than other parts of the Sun's surface. Solar flares are a sudden explosion of energy caused by tangling, crossing or reorganizing of magnetic field lines near sunspots.

Q.6) With reference to the space equity action plan, consider the following statements:

- 1. The plan tracks progress toward improved diversity, equity, inclusion, and accessibility both internally and externally in the space sector.
- 2. The plan is released by the European Space Agency.

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: A

Statement 1 is correct: The plan tracks progress toward improved diversity, equity, inclusion, and accessibility both internally and externally in the space sector.

Statement 2 is incorrect: The plan is released by the NASA.

Source: The Hindu

Q.7) International Religious Freedom Report 2022 is released by which of the following organization?

- a) International Association for Religious Freedom
- b) United States Commission on International Religious Freedom(USCIRF)
- c) National Religious Broadcasters
- d) Religions for Peace

Answer: B

The United States Commission on International Religious Freedom(USCIRF) has released the International Religious Freedom Report 2022.

USCIRF has recommended for the second year in the row to put India on the Countries of Particular Concern(CPCs) list for the worst violations of religious freedoms in 2021.

Source: The Hindu





Q.8) With reference to Trilateral Development Corporation(TDC) Fund, consider the following statements:

- 1. The fund provides an alternative to the Chinese development partnership model.
- 2. The fund is launched by Japan, India and Australia.

Which of the statements given above is/are incorrect?

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

Answer: b

- **Statement 1 is correct:** The fund provides an alternative to the Chinese development partnership model that has pushed parts of the developing world into a debt trap.
- **Statement 2 is incorrect**: The fund is launched by Ministry of External Affairs. The fund would involve private sectors with state support for big-ticket investments in the Indo-Pacific region as well as other geographies.

Source: Economic Times

Q.9) With reference to Bollard Pull, consider the following statements:

- 1. Bollard pull can be defined as the thrust developed by the propulsion systems when it has high speed.
- 2. It is a measure of the pulling power of a vessel, comparable to the horsepower rating of conventional vehicle engines.

Which of the statements given above is/are incorrect?

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

Answer: A

- **Statement 1 is correct:** Bollard Pull can be defined as the thrust that is developed by the propulsion systems of any vessel when it has a zero speed in the forward direction.
- **Statement 2 is incorrect**: It is a measure of the pulling power of a vessel, comparable to the horsepower rating of conventional vehicle engines.

Source: All India Radio

Q.10) With reference to **gravitational lensing**, consider the following statements:

- 1. It is an effect of Einstein's theory of general relativity simply put, mass bends light.
- 2. The lensing helps astronomers to detect the distribution of dark matter in the Universe.

Which of the statements given above is/are incorrect?

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

Answer: C

Both the statements are correct.



A gravitational lens can occur when a huge amount of matter, like a cluster of galaxies, creates a gravitational field that distorts and magnifies the light from distant galaxies that are behind it but in the same line of sight.

The effect is like looking through a giant magnifying glass.

Significance: This effect allows researchers to study the details of early galaxies too far away to be seen with current technology and telescopes.

First Predicted by: This effect was predicted to exist by Albert Einstein's General Theory of

Relativity in the early 20th century.





Important AS Important AS

PRELIMS

Q.1) Consider the following statements regarding Debt Recovery Tribunals

- 1. They are established under the Securitisation and Reconstruction of Financial Assets and Enforcement of Securities Interest (SARFAESI) Act
- 2. An application for recovery of debt can be made to the DRTs for all debts valued at more than 20 lakhs.

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

About Debt Recovery Tribunals (DRT):

- Debt Recovery Tribunals have been established following the passing of the Recovery of Debts due to Banks and Financial Institutions Act (RDDBFI), 1993.
- The primary goal and function of DRT is the recovery of loaned money from borrowers which is owed to banks and financial institutions from customers.
- This Tribunal is also the second court of appeal in respect of cases filed under The Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest(SARFAESI) Act,2002.

Jurisdiction:

- An application for recovery of debt can be made to the DRTs for all debts valued at more than 20 lakhs. For lesser amounts, the banks and financial institutions can approach Civil Courts.
- No court in the country other than the Supreme Court(SC) and the High Court(HC) and that too only under articles 226 and 227 of the Constitution have jurisdiction against a judgment of DRAT.

Q.2) Which among the following categories is/are taken into consideration while calculating Labour Force Participation Rate (LFPR)?

- 1. People b/w age of 18 to 60 years
- 2. Housewives
- 3. Unemployed, willing to work and actively looking for a job.

Select the correct answer from the codes given below:

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

Answer: c

The labour force participation rate is the percentage of the working population aged 16 to 64 that are currently employed or looking for work in the economy. Anybody who is still in school, housewives, and people over the age of 64 are excluded from the labour force.

Source: Article



Q.3) With reference to Hydrogen, consider the following statements:

- 1. Hydrogen fuel cell vehicles are more ideal for long-haul transportation than the Li-Ion batteries.
- 2. Hydrogen manufacturing requires a minimal amount of water.

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: a

- Statement 1 is correct: Hydrogen fuel can help in the decarbonisation of India's transport sector and India's industrial sector, like iron and steel, aluminium, copper sectors. In comparison, the hydrogen fuel cell vehicles are more ideal for long-haul transportation than the Li-Ion batteries. They have the capacity for faster fuelling and long-driving range.
- Statement 2 is incorrect: The hydrogen manufacturing requires a lot of water (For example, production of 1 kg of hydrogen by electrolysis requires around nine litres of water). Therefore, water scarcity could also pose a challenge. It can increase the cost of production of hydrogen fuel.

Source: Article

Q.4) Kedar Nath judgement sometimes in news is related to which of the following?

- a) Sedition law
- b) Temple entry of women
- c) Hate speech
- d) President's rule

Answer: a

• In the landmark 1962 Kedar Nath Singh case, the Supreme Court upheld the constitutional validity of the sedition law, it attempted to restrict its scope for misuse. The court held that unless accompanied by an incitement or call for violence, criticism of the government cannot be labelled sedition.

Source: Article

Q.5) Occupational accidents and diseases can lead to which of the following consequences?

- 1. Presenteeism
- 2. Productivity losses
- 3. Staff-turnover costs

Select the correct answer from the codes given below:

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

Answer: d



- Occupational accidents and diseases entail economic losses for enterprises and economies.
- They lead to **presenteeism** (working with less effectiveness), productivity losses associated with permanent impairment, and staff-turnover costs (i.e., loss of skilled staff). At national level, they can cost 5.4% of the global GDP annually.

Source: Article

Q.6) With reference to the Council of Ministers in a State, consider the following statements;

- 1. Council of Ministers in a State shall not exceed 10% of the total number of members of the Legislative Assembly of that State.
- 2. The number of Ministers, including the Chief Minister in a State should not be less than twelve.

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

The Constitution (91st Amendment) Act, 2003 inserted clause 1A in Article 164. This include, **Statement 1 is incorrect**: Council of Ministers in a State shall not exceed 15% of the total number of members of the Legislative Assembly of that State.

Statement 2 is correct: The number of Ministers, including the Chief Minister in a State should not be less than twelve.

Source: Indian Express

Q.7) With reference to Governor's role in State Universities, consider the following statements:

- 1. The Governor of the state is the ex-officio chancellor of the universities in that state.
- 2. As Chancellor governor acts independently of the Council of Ministers and takes his own decisions on all University matters.

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

Both the statements are correct.

The Governor of the state is the ex-officio chancellor of the universities in that state. While as Governor he functions with the aid and advice of the Council of Ministers, as Chancellor he acts independently of the Council of Ministers and takes his own decisions on all University matters.

Source: Indian Express



Q.8) Kwar Hydro Electric Project which is recently seen in news is located in which of the following state/UTs?

- a) Tamil Nadu
- b) Karnataka
- c) Jammy and Kashmir
- d) Arunachal Pradesh

Answer: C

The Cabinet Committee on Economic Affairs (CCEA) has recently approved the investment of Rs.4526.12 crore for 540 Megawatt (MW) Kwar Hydro Electric Project located on river Chenab, in Kishtwar district of Union Territory of Jammy and Kashmir.

Source: Business Standard

Q.9) With reference to Health Professional Registry (HPR), consider the following statements:

- 1. It is a comprehensive repository of all healthcare professionals involved in delivery of healthcare services in modern medicine alone.
- 2. It is one of the core building block of the Ayushman Bharat Digital Mission (ABDM).

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:** Health Professional Registry (HPR) is a comprehensive repository of all healthcare professionals involved in delivery of healthcare services across both modern and traditional systems of medicine.
- **Statement 2 is correct**: It is one of the core building block of the Ayushman Bharat Digital Mission (ABDM).

Source: PIB

Q.10) Which of the following is/are the benefits of Open Network for Digital Commerce (ONDC)?

- 1. Reduce the unfair trade practices of e-commerce players.
- 2. Unify multiple smaller players.
- 3. Curbing digital monopoly in the e-commerce sector.

Select the correct answer from the codes given below:

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

Answer: d

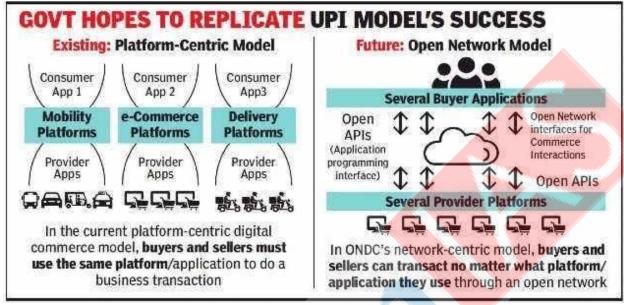
The **Unified Payment Interface (UPI)** has disrupted the digital payments' domain. ONDC seeks to achieve something similar for e-commerce.

It aims to democratise digital commerce by moving it away from platform-centric models like Amazon and Flipkart to an open network.

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This will enable more sellers to be digitally visible. The transactions will also be executed through an open network.

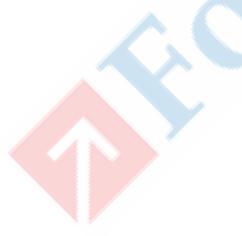


Source: TOI

The implementation of ONDC will provide the following advantages,

- Reduce the unfair trade practices of e-commerce players.
- Unify multiple smaller players.
- Curbing digital monopoly in the e-commerce sector.

Source: Business Standard



INTERNATIONAL RELATIONS

Q.1) Five Eyes, an intelligence alliance, sometimes seen in news consists of which of the following countries?

- 1. USA
- 2. UK
- 3. New Zealand

Select the correct answer from the codes given below:

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

Answer: d

• The Five Eyes is an intelligence alliance comprising Australia, Canada, New Zealand, the United Kingdom, and the United States. These countries are parties to the multilateral UKUSA Agreement, a treaty for joint cooperation in signals intelligence.

Source: Article

Q.2) Consider the following statements:

- 1. It was built in 1325 by the then Sultan Firoz Shah Tughlag.
- 2. It later became the residence of the descendants of the Nawab of Awadh.
- 3. The monument is not ASI-protected.

Which of the following is referenced in the statements given above?

- a) Malcha Mahal
- b) Bobbili fort
- c) Hawa Mahal
- d) Bellamkonda Fort

Answer: a

- The heritage structure is basically located in the Chanakyapuri area, next to Delhi Earth Station of the Indian Space Research Organisation. It was built in 1325 by the then Sultan Firoz Shah Tughlaq and was, for long, used as a hunting lodge.
- It later became the residence of the **descendants of the Nawab of Awadh**. It is said that it came to be known as 'Wilayat Mahal' after Begum Wilayat Mahal of Awadh, who claimed that she was a member of the royal family of Oudh. She was given the palace by the government in 1985.
- According to a PTI report, **the monument is not ASI-protected** and, therefore, no attention was paid to it in all these years in order to conserve it. But now, sources have revealed that there is a proposal being prepared to restore Malcha Mahal and make it into a place that may lure history enthusiasts.

Source: Article



Q.3) Arrange the following seas from North to South:

- 1. Coral
- 2. Solomon
- 3. Bismarck

Select the correct answer from the codes given below:

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

Answer: d

The correct order from North to South is -

- Bismarck
- Solomon
- Coral

Source: Article

Q.4) With reference to Nurturing Neighborhoods Challenge, consider the following statements:

- 1. It aims to provide technical support and capacity-building to develop solutions that enhance the quality of life of young children in cities.
- 2. Only the Smart Cities under the Smart City mission are eligible for the challenge.

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: a

- **Statement 1 is correct:** The Nurturing Neighbourhoods Challenge is a 3-year initiative that aims to work with Indian cities and their partners to pilot and scale ways to improve public space, mobility, neighborhood planning, access to early childhood services and amenities, and data management across city agencies.
 - The Challenge aims to propagate an early childhood centric approach among Indian cities, helping urban planners, architects, engineers, and city managers to implement pilots and scale up solutions using the Infant, Toddler, Caregiver-Friendly Neighborhood (ITCN) Framework.
- **Statement 2 is incorrect**: The Challenge is open to all Indian cities with population above 5 lakhs, Smart Cities, and capitals of States/Union Territories.



Q.5) Which of the following factors make demand of a product inelastic?

- 1. High competition in product category
- 2. No close substitute for the product

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

Answer: b

The inelastic demand occurs when the demand for a product doesn't change as much as the price. Inelastic demand is one of the three types of demand elasticity. It describes how much demand changes when the price does. The other two are:

- -Elastic demand is when changes in price impact the quantity demanded.
- -Unit elastic demand is when changes in price cause an equal change in demand.

Major factors for a product having an inelasticity of demand are:

- No substitutes: if there is an easy substitute for a good or service, the substitute makes the demand for the good more elastic.
- Having little or no competition in the market: if a firm has monopoly power, then it is able to charge higher prices

Q.6) With reference to the Bird Flu, consider the following statements;

- 1. All avian influenza viruses infect humans.
- 2. There is no vaccine against H5N1.

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: Most avian influenza viruses do not infect humans, however, some, such as A(H5N1) and A(H7N9), have caused serious infections in people.

Statement 2 is correct: There is no vaccine against H5N1.

Source: Indian Express

Q.7) Consider the following statements;

- 1. The British called him the 'father of the irrigation department'.
- 2. He built Malcha Mahal in Delhi.
- 3. He established towns such as Fatehabad, Jaunpur and Hissar.

Which of the following person is referenced in the statements given above?

- a) Babur
- b) Muhammad bin Tughlaq
- c) Akbar
- d) Firoz Shah Tughlaq

Answer: D

Source: Indian Express

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Q.8) With reference to MSME Sustainable (ZED) Certification Scheme, consider the following statements:

- 1. The Scheme aims to create awareness amongst MSMEs about Zero Defect Zero Effect (ZED) practices.
- 2. Through this scheme MSMEs can reduce wastage substantially, increase productivity and enhance environmental consciousness.

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

Both the statements are correct.

The scheme aims to create awareness amongst MSMEs about Zero Defect Zero Effect (ZED) practices and motivate and incentivise them for ZED Certification while also encouraging them to become MSME Champions.

Through the ZED Certification, MSMEs can reduce wastage substantially, increase productivity, enhance environmental consciousness, save energy, optimally use natural resources, and expand their markets amongst others.

Source: Indian Express

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

- 1. It is developed by the Airport Authority of India (AAI) and Indian Space Research Organization (ISRO).
- 2. GAGAN uses a system of satellite signals alone to provide necessary augmentation to the GPS navigation signal.

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: A

Statement 1 is correct: It is developed by the Airport Authority of India(AAI) and the Indian Space Research Organization(ISRO).

Statement 2 is incorrect: GAGAN uses a system of ground stations – in Delhi, Guwahati, Kolkata, Ahmedabad, Thiruvananthapuram, Bengaluru, Jammu and Port Blair – to provide necessary augmentation to the GPS navigation signal.

Source: Indian Express



Q.10) Internet Treaties and Nice Agreement sometimes seen in news is related to which of the following?

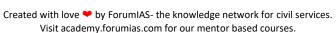
- a) Global Telecommunications
- b) Cyber security
- c) Intellectual Property Rights
- d) Aviation sector

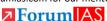
Answer: C

World Intellectual Property Organization(WIPO) Performances and Phonograms Treaty and WIPO Copyright Treaty collectively known as the WIPO Internet Treaties.

The Nice Agreement establishes a classification of goods and services for the purposes of registering trademarks and service marks.

Source: Economic Times





PRELIMS

Q.1) With reference to Papier-mâché in Kashmir, consider the following statements:

- 1. Saint Mir Sayyid Ali Hamadani from Persia is said to have brought this craft to Kashmir.
- 2. It is based primarily on creating colourful utility and decorative objects using walnut trees.

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: a

- **Statement 1 is correct**: Saint Mir Sayyid Ali Hamadani from Persia is said to have brought this craft to Kashmir.
- **Statement 2 is incorrect**: It is based primarily on creating colourful utility and decorative objects using paper pulp.

Q.2) With reference to the Representation of the People Act 1951, consider the following statements:

- 1. Every election candidate is to keep an account of all expenditure in connection with the election incurred or authorised by him.
- 2. If a person who is already a member of the Loksabha is chosen a member of the Rajyasabha, his seat in the Loksabha shall become vacant.

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

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

Answer: c

- **Statement 1** is **correct:** Article 77(1) of the Representation of the People Act, 1951 states that every candidate at an election shall, either by himself or by his election agent, keep a separate and correct account of all expenditure in connection with the election incurred or authorized by him or by his election agent between the date on which he has been nominated] and the date of declaration of the result.
- **Statement 2 is correct**: Article 69 of the Representation of the People Act, 1951 states that if a person who is already a member of the House of the People and has taken his seat in such House is chosen a member of the Council of States, his seat in the House of the People shall, on the date on which he is so chosen, become vacant.
 - Further, if a person who is already a member of the Council of States and has taken his seat in such Council is chosen a member of the House of the People, his seat in the Council of States shall, on the date on which he is so chosen, become vacant.



Q.3) Which of the following materials is a semiconductor?

- 1. Silicon
- 2. Gallium arsenide
- 3. Germanium

Select the correct answer from the codes given below:

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

Answer: d

• All materials are semiconductors.

Source: Article

Q.4) With reference to Heatwaves in India, consider the following statements:

- 1. The threshold of maximum temperature for the declaration of a heatwave is lower for plains than hilly regions.
- 2. A heatwave occurs due to the movement of high atmospheric pressure into an area.

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:** Quantitatively, Heatwave is defined based on the temperature thresholds over a region in terms of actual temperature or its departure from normal. For instance, Heatwave will be declared if the maximum temperature of a station reaches at least 40 °C or more for plains and at least 30 °C or more for Hilly regions.
- **Statement 2 is correct**: A heatwave occurs due to movement of high atmospheric pressure into an area and lasts for two more days. In such a condition, air from the upper levels of our atmosphere is pulled towards the ground. It then gets compressed and triggers a rise in temperatures. The high pressure makes it difficult for other weather systems to move into the area. Movement of winds therefore becomes non-existent. The high-pressure system also bars clouds from entering the region and sunlight can further heat the system.

Source: Article



Q.5) With reference to rules governing the service and resignation of IAS officers, consider the following statements:

- 1. An IAS Officer who resigns from the service is still entitled for retirement benefits.
- 2. An officer serving in a cadre (state) must submit his/her resignation to the chief secretary of the state.

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:** Those who take Voluntary Retirement Scheme (VRS) are entitled to pension, whereas those who resign are not.
- Statement 2 is correct: An officer serving in a cadre (state) must submit his/her resignation to the chief secretary of the state. An officer who is on central deputation is required to submit his/her resignation to the secretary of the concerned Ministry or Department.

Source: Article

Q.6) With reference to Museums Grant Scheme, consider the following statements:

- 1. The scheme aims to develop at least 1 Central / State Government Museum located in the State Capital each year.
- 2. The Ministry of Culture provides financial assistance under the Scheme.

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

Both the statements are correct.

The Ministry of Culture and Tourism has granted Rs 3.75 crore under the 'Upgradation of Museums Scheme' as part of Museums Grant Scheme for the Rs 5-crore project in Eluru town, Andhra Pradesh.

About the scheme:

Aim: To strengthen and modernize the existing museums at the Regional, State and District level.

To develop at least 1 Central / State Government Museum located in the State Capital each year.

The Ministry of Culture provides financial assistance under the Scheme to the State Governments and Societies, Autonomous bodies, Local Bodies and Trusts registered under the Societies Act 1860, for setting up new Museums.

Source: The Hindu





Q.7) With reference to Centre for Development of Advanced Computing (C-DAC), consider the following statements:

- 1. India's first supercomputer PARAM 8000 was indigenously built by the C-DAC.
- 2. It functions under the Ministry of Science and Technology.

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: A

Statement 1 is correct: India's first supercomputer PARAM 8000 was indigenously built (in 1991) by the Centre for Development of Advanced Computing.

Statement 2 is incorrect: C-DAC is a premier Research and Development organization of the Ministry of Electronics and Information Technology (MeitY).

Source: PIB

Q.8) With reference to Palm oil, consider the following statements:

- 1. India is the biggest importer of palm oil.
- 2. Canada and Argentina together account for almost 90% of the global palm oil production.
- 3. The use of crude palm oil in making biodiesel is being branded as 'green diesel'.

Which of the statements given above is/are correct?

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

Answer: C

Statement 1 is correct: India is the biggest importer of palm oil. The prices of palm oil rose this year as demand increased because of the short supply of alternative vegetable oils.

Statement 2 is incorrect: Indonesia and Malaysia together account for almost 90% of the global palm oil production.

Note: Argentina is a major producer of soy bean oil. Canada is a major producer of canola oil. **Statement 3 is correct**: The use of crude palm oil in making biodiesel is being branded as 'green diesel'.

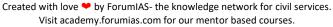
Source: The Hindu

Q.9) Main Airframe Fatigue Test (MAFT) which is seen in news recently, is related to which of the following?

- a) Testing the performance of Servers
- b) Testing the communication capability of Satellites
- c) Testing the Aircrafts
- d) Testing the frame of high end super cars

Answer: C

The Hindustan Aeronautics Limited (HAL) has commenced the Main Airframe Fatigue Test (MAFT) of the Light Combat Aircraft (LCA) Mk1 airframe.





These tests will be carried out over a period of eight to nine years. The successful completion of the MAFT will qualify the LCA [Air Force] Mk1 airframe for its full service life.

As per the military airworthiness requirements, the MAFT had to demonstrate the capability of the airframe to withstand four times the service life.

Source: The Hindu

Q.10) With reference to the Uniform Civil Code, consider the following statements;

- 1. The implementation of UCC will support the national integration.
- 2. Uniform Civil Code is so far not implemented in any of the Indian states/UTs.

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: A

Statement 1 is correct:

India needs a Uniform Civil Code

- To provide equal status to all citizens
 - To support the national integration
 - To bypass the contentious issue of reform of existing personal laws
 - Various Courts judgements that the government should move towards a uniform civil code.

Statement 2 is incorrect: Goa has implemented the Uniform Civil Code. The Uniform Civil code(UCC) was introduced in Goa by the erstwhile Portuguese rulers. It was retained even after the territory was merged with India in the year 1961.

It is the only state in the country where uniform civil code is applicable to all regardless of religion except while protecting certain limited rights.

Source: Times Now

