

## *10 PM Current Affairs Quiz Compilation*

**3<sup>rd</sup> April to 9<sup>th</sup> April, 2022**

*THIS IS A MONTHLY DOCUMENT CONTAINING ALL MCQS ASKED IN 10 PM  
CURRENT AFFAIRS QUIZ BY FORUMIAS.*

## **Environment**

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**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**

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**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**

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**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:**



**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 from 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



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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.

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- **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 Equatorial 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 Equatorial 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**

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**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

**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 (NO<sub>2</sub>)**. It also includes **measurements of Particulate Matter** with diameters equal or smaller than 10 µm (PM<sub>10</sub>) or 2.5 µm (PM<sub>2.5</sub>).

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 semi-nomads 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 & Idatte 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](#)



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**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 (NO<sub>2</sub>) and oxides of Nitrogen (NO<sub>x</sub>), consider the following statements:**

1. NO<sub>2</sub> along with other NO<sub>x</sub> reacts with other chemicals in the air to form both particulate matter and ozone.
2. NO<sub>x</sub> 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.**

- NO<sub>2</sub> along with other NO<sub>x</sub> reacts with other chemicals in the air to form both particulate matter and ozone. Both of these are also harmful to the respiratory system.
- NO<sub>x</sub> in the atmosphere contributes to nutrient pollution in coastal waters.

**Source:** [Article](#)

## **Art and Culture**

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**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**

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**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.
  - 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 solid first stage, liquid third stage, solid third stage, liquid fourth stage.

**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 Aadhaar 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 Aadhaar Act regulations states that Aadhaar 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**

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**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

- 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.

## 10 PM Compilation for the Month of April. (First Week) 2022

**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  $\text{kg/m}^2$ , 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](#)