

**Q: Consider the following statements with respect to Plasma Waves:**

1. They are an interconnected set of particles and fields which propagate in a periodically repeating fashion.
2. Plasma Waves are found only in Earth in the entire Solar System.

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

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

Ans: a

Explanation:

- It is an interconnected set of particles and fields which propagate in a periodically repeating fashion.
- The waves that emanate from the sun having low-density, ionized gases are called as plasmas.
- Plasma is a good electrical conductor with properties that are strongly affected by electric and magnetic fields.
- Various plasma waves are often observed in the Earth's magnetosphere, a magnetic field cavity around the Earth.
- In general, plasma waves are identified as the short-time scale fluctuations in the electric and magnetic field observations.
- These plasma waves play an important role in the energization and transport of the charged particles in the Earth's magnetosphere.

**Q: Consider the following statements with respect to PRITHVI Vigyan (PRITHVI) Scheme:**

1. It is a joint initiative of the Ministry of Science and Technology and Ministry of Defence.
2. The scheme aims to produce indigenous class of Agni and Prithvi missiles under Make in India Program.
3. SAGE (Seismology and Geosciences) is one of the sub-schemes of the PRITHVI scheme.

How many of the statements given above are incorrect?

- a) Only one
- b) Only two
- c) All Three
- d) None of the above

Ans: b

Explanation:

- PRITHVI stands for Promoting Research in Earth Systems Science, Technology, & Human Resource Development.
- It is an initiative of Ministry of Earth Sciences (MoES).
- Various components of PRITHVI scheme are inter-dependent and are carried out in an integrated manner through combined efforts of the concerned institutes under MoES.
- The scheme enables development of integrated multi-disciplinary earth science research and innovative programs across different MoES institutes.
- Augmentation and sustenance of long-term observations of the atmosphere, ocean, geosphere, cryosphere and solid earth to record the vital signs of the Earth System and change.
- Development of modelling systems for understanding and predicting weather, ocean and climate hazards and understanding the science of climate change.
- Exploration polar and high seas regions of the Earth towards discovery of new phenomena and resources.
- Development of technology for exploration and sustainable harnessing of oceanic resources for societal applications.
- Translation of knowledge and insights from Earth systems science into services for societal, environmental and economic benefit.
- Sub schemes – It integrates 5 existing sub-schemes that includes:
  - ❖ ACROSS – Atmosphere & Climate Research-Modelling Observing Systems & Services
  - ❖ O-SMART – Ocean Services, Modelling Application, Resources and Technology

- ❖ PACER – Polar Science and Cryosphere Research
- ❖ SAGE – Seismology and Geosciences
- ❖ REACHOUT – Research, Education, Training, and Outreach

**Q: Consider the following statements with respect to Mitigation Work Programme (MWP):**

1. It is part of Global Stocktake, which was originally proposed during the COP28.
2. The programme is a brainchild of India's Ministry of Environment Forest and Climate Change.

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

Ans: d

Explanation:

- Mitigation Work Programme is a part of Global Stocktake which was originally proposed by the United States at COP26.
- It aims to encourage countries to heighten mitigation ambition in their climate plans in order to stay within 1.5 degrees Celsius (°C) of warming.
- The Second Global Dialogue and Investment-Focused Event under the Sharm el-Sheikh Mitigation Ambition and Implementation Work Programme (MWP) took place from October 2023 in Abu Dhabi.
- However, it has seen pushback from developing countries who initially questioned how its role differed from the Global Stocktake, which is itself a mechanism written in to scale up ambition.
- There are 2 possible reasons for the failure of the MWP to discuss substance in Dubai:
- Unwillingness to prejudge the Global Stocktake (GST) until the final day and commit more than what it agreed to.
- The atmosphere of mistrust that exists among Parties with respect to who will bear the mitigation burden.

**Q: Consider the following statements with respect to Pallas's Fish Eagle:**

1. It is the largest eagle species in the world.
2. The species is found only in India's west coast region.
3. It is classified as endangered by the IUCN Red List.

How many of the statements given above are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None of the above

Ans: a

Explanation:

- Pallas's fish eagle (*Haliaeetus leucoryphus*) is also known as Pallas's sea eagle or band-tailed fish eagle, is a large, brownish sea eagle.
- It is not the largest eagle species in the world.
- Conservation – It is listed as Endangered on the IUCN Red List.
- It is a winter migrant, which is protected under the Schedule-I of the Wildlife Protection Act, 1972.
- It can be found in the east Palearctic in Kazakhstan, Russia, Tajikistan, Turkmenistan, Uzbekistan, Mongolia, China, India, Nepal, Bangladesh, Myanmar and Bhutan.
- It is endemic to Asia.
- It breeds during winter in the northern and north-eastern parts of the Indian subcontinent and migrates to Mongolia and thereabouts for the summer.
- Its diet consists primarily of large freshwater fish.

**Q: Consider the following statements with respect to Etikoppaka Toys:**

1. These toys are manufactured in the state of Andhra Pradesh.
2. Etikoppaka Toy is a Geographical Indication (GI) tagged product.
3. These toys have no sharp edges and are rounded on all sides.

How many of the statements given above is/are correct?

- a) Only one
- b) Only two
- c) All Three
- d) None of the above

Ans: c

Explanation:

- The Etikoppaka toy industry is believed to be around 400 years old.
- In early days, some craftsmen from Etikoppaka, a Village in Andhra Pradesh made in small wooden bowls and boxes for household purposes.
- Etikoppaka toys was granted the Geographical Indication (GI) tag in 2017.
- The Etikoppaka toys industry have been flourishing in the recent times.
- These toys have no sharp edges and are rounded on all sides.
- The industry has provided livelihood to a number of women in the village.