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**GANDHI INSTITUTE OF ENGINEERING AND TECHNOLOGY UNIVERSITY,
ODISHA, GUNUPUR
(GIET UNIVERSITY)**

**B. Sc. (Ag.) (Fourth Semester) Examinations, April – 2025
FO-222 – Environmental Studies and Disaster Management**

Time: 2 hrs

Maximum : 50 Marks

The figures in the right hand margin indicate marks.

PART – A

Q.1. Fill in the blanks with suitable word / figure.**(0.5 x 10 = 5 Marks)**

- a. Heat wave is declared when the temperature exceeds Degree Celsius.
- b. Wildlife (Protection) Act was enacted in the year
- c. is an example of Metallic mineral.
- d. Project Tiger was started in the year
- e. is the process of converting waste materials into new materials and objects.
- f. The Red Data Book is published by the organization called
- g. The release of gas led to the Bhopal Gas Tragedy in 1984.
- h. is the sudden descent of a large mass of rock, earth, or debris down a slope.
- i. A is a high sea wave caused by an underwater earthquake or volcanic eruption.
- j. The Total forest area of India is% of total geographical area of our country.

Q. 2. Define (or) Explain the following in one or two sentences.**(1 x 5 = 5 Marks)**

- a. Greenhouse effect
- b. Eutrophication
- c. Petro Crops
- d. Allogenic Succession
- e. Pyroclastic flow

Q3. Match the following**(0.5 x 10 = 5 Marks)**

Column – A

Column – B

- | | |
|------------------------|---|
| (a) NDMA | (i) Disaster caused by release of methyl isocyanate |
| (b) Richter Scale | (ii) Flow of molten lava along with ash, smoke and gases at a high speed |
| (c) El Nino & La Nina | (iii) Strengthening existing structures to withstand disasters |
| (d) Cloud Seeding | (iv) Indian agency for disaster risk reduction and preparedness |
| (e) Pyroclastic Flow | (v) An organisation dealing with observance and monitoring of meteorological conditions |
| (f) Bhopal Gas Tragedy | (vi) Measures magnitude of earthquakes |

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|----------------------------|---|
| (g) NDRF | (vii) An Organisation dealing with disaster response activities |
| (h) Cyclone Warning Centre | (viii) Climatic phenomenon disrupting global weather patterns due to ocean temperature rise |
| (i) IMD | (ix) Agency responsible for issuing alerts on tropical storms in coastal India |
| (j) Retrofitting | (x) Artificial induction of rain using silver iodide |

Q4. Write True or False against each statement

(0.5 x 10 = 5 Marks)

- Full form of CNG is Certified Natural gas.
- Mars is considered as Blue Planet.
- Botanical Gardens are examples of Exsitu Conservation.
- The chemical used in cloud seeding to induce artificial rain is Silver iodide.
- Hazard mapping is a key technique used in assessing and planning disaster-prone areas.
- A Cyclone is a rapidly rotating storm system characterized by a low-pressure center and thunderstorms.
- NDMA is the official nodal agency for disaster management in India.
- Blue-baby syndrome is caused by Nitrate pollution.
- Energy pyramid is never upright.
- The concept of Sustainable development focuses on meeting present needs without compromising future generations.

PART – B

Attempt ANY FIVE questions. All question carries equal marks

(6 x 5 = 30 Marks)

- How different types of drought conditions leads to poor socioeconomic condition of people? What possible measures can be taken to overcome the same?
- Soil Pollution is a measure threat to agricultural production. Explain the causes and propose suitable control measures.
- Define Earthquake. What are the causes of earthquake? Explain the possible risk reduction measures.
- Explain the levels of Biodiversity. What are the different approaches of conservation of Biodiversity?
- What are the functional attributes of Ecosystem? Explain the types of ecological pyramids with diagrams and suitable examples.
- Write down the Causes, Impact and Control Measure of
 - Ozone Layer Depletion
 - Acid Rain

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