

GANPAT UNIVERSITY**B. Tech. Semester 2nd Sem (CE/IT/EC/BM&I/MARINE)****Regular Examination – May/June : 2014****2CI- 103: Environmental Studies and Disaster Management****Time: 3 Hours****Total Marks: 70****Instructions: -** (1) Answer to the two sections must be written in separate answer books.

(2) Figures to the right indicate full marks.

(3) Assume suitable data if required.

Section - I

1 (A) Define the following terms: (5)

(a) Food chain (b) Ecological pyramid (c) Decomposers (d) Ecosystem

(B) State whether the following statements are TRUE or FALSE. (7)

- i. Microorganisms play crucial role in cycling of nitrogen.
- ii. Scavengers are animals which feed on dead bodies of other organisms.
- iii. The major reservoir of phosphorus is in the atmosphere.
- iv. Energy flow in an ecosystem is always unidirectional.
- v. The shape of the pyramid of biomass for a pond or aquatic ecosystem is linear.
- vi. Symbiosis is the interaction between organisms of different species so as to get benefit from each other.
- vii. In a food chain plants constitute the third trophic level.

OR

1 (A) Explain Impacts of technology on Environment. (8)

(B) Explain pyramid of energy with neat sketches. (4)

2 (A) Write a short note on Carbon cycle. (6)

(B) Define the following terms: (5)

(a) Autotrophs (b) Omnivores (c) Trophic level (d) Food web

OR

2 (A) Explain interrelationship between various components of the environment. (6)

(B) Draw and explain oxygen cycle. (5)

3 Attempt the following questions: (12)

(A) Write a short note on Desert ecosystem

(B) Define Sustainable development. Write and explain IPAT equation.

(C) Draw and explain River ecosystem.

Section – II

4 (A) Describe in detail ozone layer depletion process. (5)

(B) Describe three ways to minimize radiation exposure. (4)

(C) Define natural and man-made disasters with examples. (3)

OR

- 4 (A) Explain Oxygen depleting substances and Organic compounds causing water pollution. (4)
(B) Write a short note on Geothermal Energy (4)
(C) Define (1) Tsunami (2) Cyclone (3) Drought (4) Floods (4)

- 5 (A) Define (a) Earthquake (b) Seismic wave (c) Heat cramps (3)
(B) Discuss any two causes of landslides. (4)
(C) Discuss terrorism and riots. (4)

OR

- 5 (A) Define (a) Mitigation (b) Preparedness (c) Relief (d) Recovery (4)
(B) Classify the sources of air pollutants based on origin. (3)
(C) Discuss transportation accidents and nuclear power accidents (4)

- 6 Answer the following multiple choice questions: (12)

- 1 The intentional release of toxic biological agents to harm civilians for political or other reasons is called
(a) Nuclear warfare (b) Plague (c) Bioterrorism (d) Terrorism
- 2 The type of movement where tectonic plates pull away from each other?
(a) Transformational (b) Divergent (c) Convergent (d) Rupture
- 3 Slow, steady down slope movement of soil or rock often indicated by bent tree is called
(a) Creep (b) Mudflow (c) Landslide (d) Avalanche
- 4 Fires involving combustible metals are classified under which class?
(a) Class B (b) Class A (c) Class D (d) Class C
- 5 Which of the following cannot be used as feedstock in biogas plant?
(a) Animal dung (b) Municipal waste (c) Agro waste (d) None of these
- 6 What kind of energy has explosion hazard and difficulty to store and transport?
(a) Thermal (b) Steam energy (c) Geothermal (d) Hydrogen
- 7 Nuclear energy produced by combining two hydrogen atoms forming one helium atom is called
(a) Nuclear fusion (b) Rupture (c) Nuclear split (d) Nuclear fission
- 8 Rainfall overwhelming drainage capacity of urban areas causing flooding is called
(a) Flash floods (b) Riverine floods (c) Debris flow (d) Urban floods
- 9 What was the name of major nuclear accident taken place in 1986?
(a) Bhopal gas tragedy (b) Chernobyl (c) Carbide (d) Hiroshima
- 10 Disease caused by eating fish inhabiting mercury contaminated water is
(a) Osteosclerosis (b) Minamata disease (c) Dengue (d) Diarrhoea
- 11 The instrument that continuously records ground vibration is called
(a) Cardiograph (b) Vicat apparatus (c) Seismograph (d) None of these
- 12 Tropical cyclone weakens when source of _____ is abruptly cut off.
(a) High winds (b) Thunder clouds (c) Warm moist air (d) High pressure

END OF PAPER