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MED-001

POST GRADUATE DIPLOMA IN ENVIRONMENT AND SUSTAINABLE DEVELOPMENT (PGDESD)

Term-End Examination

00237

December, 2016

MED-001 : UNDERSTANDING THE ENVIRONMENT

Time : 2 hours *Maximum Marks : 50*

Note : *All questions are* ***compulsory.***

1. Answer any ***five*** of the following : *5×2=10*

(a) Why are tropical forests highly productive zones ?

(b) Explain Rayleigh scattering.

(c) What is the temperature profile and composition of the stratosphere ?

(d) What do you understand by amictic lakes ?

(e) What are POPs ?

(f) Why are aquatic systems more resilient ?

2. Attempt any ***two*** of the following : $2 \times 5 = 10$

(a) Describe with the help of suitable examples and illustrations various patterns of dispersion of populations.

(b) Explain the important features of flow of energy in an ecosystem with suitable examples.

(c) On what features does the stability of a food web depend ? Explain with examples.

3. (a) (i) Are viruses living or non-living ? Elaborate. 3

(ii) Give a brief account of subkingdoms of bacteria. 2

(b) (i) Explain any three survival strategies of plants of warm deserts. 3

(ii) Explain any two survival strategies of animals of warm deserts. 2

OR

(a) With the help of a well-labelled schematic representation, describe the carbon cycle. 7

(b) What is denitrification ? Give reactions along with the microorganisms involved in it. 3

4. Attempt any ***two*** of the following :

(a) (i) Differentiate between Jhoom and Shifting cultivation. 2

(ii) Explain the impact of Industrial societies on environment. 3

(b) How does overgrazing cause degradation of environment ? 5

(c) Discuss various water quality parameters. 5

5. Attempt any ***two*** of the following :

(a) Discuss the defence mechanisms acquired by marine organisms. 5

(b) Explain the experiments carried out by Gauss to illustrate predator-prey relationship. How do predators reduce competitive exclusion ? 5

(c) (i) What is the importance of pH of soil ? 2

(ii) Briefly discuss the significance of organic matter in soil. 3