

**POST GRADUATE DIPLOMA IN
ENVIRONMENT AND SUSTAINABLE
DEVELOPMENT (PGDESD)**

Term-End Examination

December, 2014

01852

MED-001 : UNDERSTANDING THE ENVIRONMENT

Time : 2 hours

Maximum Marks : 50

*Note : Question no. 1 is **compulsory**. Answer any **four** questions from questions no. 2 to 6.*

1. Answer any **five** of the following in about fifty words each :

- (a) Which part of the Earth is most affected by human activities and why ?
- (b) What are the causes of temporary and permanent hardness of water ?
- (c) What is common between noise and radiation pollution ?
- (d) Differentiate between biological and industrial fixation of nitrogen.
- (e) Differentiate between viruses and bacteria.

(f) Expand any **two** abbreviations :

(i) GPP

(ii) PPs

(iii) NCP

(g) Explain ecological niches.

(h) Explain bioluminescence.

2. (a) Depict the rise of major groups of organisms over the geological time scale. 5

(b) Give the main categories of soil micro-organisms. What are their effects on soil fertility? 5

OR

What are the various parameters that are tested to ensure that water is fit for consumption? 5

3. Answer any **two** of the following :

(a) Give an account of the three Rs of solid waste management. 5

(b) 'The exponential growth is independent of population density.' Discuss. 5

(c) Write an account of nutrient cycling in a forest. 5

4. (a) Draw a labelled diagram showing the structure of coral reef. Describe it in detail. 5
- (b) Describe the relationship between complexity of food web and stability of ecosystem. 5

OR

Distinguish between the following : 10

- (a) Renewable and Non-renewable resources of energy
- (b) Natural and Man-made environment
- (c) Nekton and Plankton
- (d) Pycnocline and Thermocline
5. (a) Using examples, explain the different modes of heterotrophic nutrition. 5
- (b) Describe the various physical and chemical processes of soil formation. Explain the soil profile with the help of a neat diagram. 5
6. Prepare a comprehensive account of estuaries with emphasis on their geology, geomorphology and salinity gradient. 10