POST GRADUATE DIPLOMA IN ENVIRONMENT AND SUSTAINABLE DEVELOPMENT (PGDESD)

Term-End Examination

00132

June, 2014

MED-001 : UNDERSTANDING THE ENVIRONMENT

Time : 2 hours　　　　　　　　　　*Maximum Marks : 50*

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

1. Explain any *five* of the following in about fifty words each :　　　　　　　　　*2×5=10*

   (a) Biosphere

   (b) Ecosystem

   (c) Community

   (d) Demography

   (e) Symbiosis

   (f) Gain hypothesis

   (g) Soil structure

2. (a) The first law of thermodynamics or the law of conservation of energy governs energy flow into and within food webs. Explain this with suitable examples.   *5*

OR

How does energy flow through an ecosystem ? Explain with a suitable diagram.   *5*

(b) Discuss in detail the causes of environmental degradation citing suitable examples.   *5*

3. Answer any *two* of the following :

(a) Give any five renewable energy sources with brief description of each.   *5*

(b) "Ozone is both a protector and a problem for us." Elaborate this statement.   *5*

(c) Discuss the chemical and physical properties of water that have made it an essential component of living organisms.   *5*

4. (a) What are air currents ? How do they affect the global pattern of climate ?   *5*

(b) How does water pollution affect the environment and human health ?   *5*

OR

Explain the relationship between growth of a population and the carrying capacity of the environment. Give the sigmoid curve. for population growth.   *5*

5. (a) Describe human impacts on Nitrogen and Sulphur cycles. $2\frac{1}{2}+2\frac{1}{2}=5$

(b) Differentiate between any *two* of the following giving examples of each :

(i) Lotic and Lentic aquatic habitats $2\frac{1}{2}$

(ii) Photosynthesis and Chemosynthesis $2\frac{1}{2}$

(iii) Bioaccumulation and Biomagnification $2\frac{1}{2}$

(iv) Savannas and Grasslands $2\frac{1}{2}$

6. What are ecological pyramids ? Describe the different types of ecological pyramids. What purpose do they serve ? $1+6+3=10$