

**POST GRADUATE DIPLOMA IN
SUSTAINABILITY SCIENCE (PGDSS)**

Term-End Examination

June, 2021

MSD-012: ECOSYSTEM AND NATURAL RESOURCES

Time : 3 hours

Maximum Marks : 100

Note : Attempt any **ten** questions. Each question carries equal marks.

1. Discuss any **two** of the following terms : 5+5=10
 - (i) Energy Flow
 - (ii) Production Processes
 - (iii) Decomposition
 - (iv) Nutrient Cycling

2. Describe the various uses of biodiversity. 10

3. (a) Describe unsustainable land use practices.
(b) Explain the contribution of science and technology in land use management. 5+5=10

4. (a) Describe a soil profile.
(b) Describe the various soil components and soil structure. $5+5=10$
5. Describe the hydrological cycle with a neatly labelled diagram. 10
6. (a) Write a short note on water quality parameters.
(b) Describe water pollution and its impacts. $5+5=10$
7. (a) Explain the concept of resources and waste.
(b) Explain types of resources and the concept of renewability. $5+5=10$
8. (a) Write a short note on coal and natural gas.
(b) Explain hydropower and wind energy. $5+5=10$
9. (a) What are the different types of wastes generated in the various mining steps ?
(b) How can mine wastes be managed ? $5+5=10$
10. (a) Explain conservation of resources with examples.
(b) Write a short note on 'Earth-Wisdom Society'. $5+5=10$

- 11.** (a) What do you mean by 'Agrobiodiversity' ?
- (b) Discuss agrobiodiversity and food security. $5+5=10$
- 12.** (a) Explain how traditional knowledge is important in agrobiodiversity conservation.
- (b) Discuss participatory plant breeding practices. $5+5=10$
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