

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

Term-End Examination

June, 2016

**MSD-012 : ECOSYSTEM AND NATURAL
RESOURCES**

Time : 3 hours

Maximum Marks : 100

*Note : (i) Attempt any five of the following questions.
(ii) Each question carries equal marks.*

1. (a) Write short notes on **any five** of the following in about **100** words : **5x2=10**
 - (i) Biotic components of the ecosystem
 - (ii) Species and Ecosystem biodiversity
 - (iii) Provisioning services provided by the biodiversity
 - (iv) Biodiversity loss and Millenium Development Goals
 - (v) Major challenges in meeting the goals of biodiversity conservation
 - (vi) Need of protection of traditional knowledge of biodiversity
- (b) Describe flow of energy and matter in an ecosystem through a well labelled diagram. **10**
2. (a) Differentiate between ex-situ conservation and in-situ conservation strategies of biodiversity with the help of suitable examples. **10**

- (b) Write a note on role of biodiversity hotspots and mega diversity centres in biodiversity conservation. **10**
3. (a) What is sustainable land use management ? Discuss various contributions of Science and Technology in land use management. **5+5=10**
- (b) Why land is considered as a resource ? Discuss land use pattern and land management in India. **5+5=10**
4. (a) Write a note on water resources of India. Discuss various methods to reduce the loss of soil water and to improve soil moisture. **5+5=10**
- (b) What is conservation of natural resources ? Discuss the International efforts to conserve water and to protect its quality. **5+5=10**
5. Write short notes on **any four** of the following in about **300** words : **5x4=20**
- (a) Natural gas
- (b) Hydropower
- (c) Tidal and wave energy
- (d) Geothermal energy
- (e) Recycling of materials
6. (a) Describe different types of mineral resources according to Dana Classification System. **10**
- (b) What are the different management strategies for the disposal of tailings after the mining ? **10**

7. What are the distinctive features of agrobiodiversity ? Write a note on ecosystem services provided by the agrobiodiversity. **10+10=20**
8. Answer **any four** of the following in about **300** words : **5x4=20**
- (a) Management of animal genetic biodiversity
 - (b) Role of agrobiodiversity in sustainable agriculture
 - (c) Gender and agrobiodiversity
 - (d) Participatory plant breeding
 - (e) Intellectual Property Rights and Plant Variety Protection
 - (f) PPVFR Act, 2011
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