POST GRADUATE DIPLOMA IN SUSTAINABILITY SCIENCE (PGDSS)

Term-End Examination

□□ㄹ4ㅋ   **June, 2017**

MSD-012: ECOSYSTEM AND NATURAL RESOURCES

Time : 3 hours   *Maximum Marks : 100*

Note : *Attempt any **ten** questions. All questions carry equal marks.*

1. Write short notes on any *five* of the following : 5×2=10

    (a) Abiotic Components of an Ecosystem

    (b) Net Primary Production

    (c) A Compound Land Utilization Type

    (d) Megadiversity Countries

    (e) Types of Wastes

    (f) Supporting Capacity of a Natural Ecosystem

    (g) Value of Natural Resources

2. Define the term Ecosystem. Explain the functions of an ecosystem.   *5+5=10*

3. What is the need to conserve biodiversity ? Give different approaches for biodiversity conservation. *5+5=10*

4. Give an account of the status and distribution of water resources of India. Discuss briefly, water management options in India. *5+5=10*

5. Describe different types of energy resources. Discuss solar energy and hydropower in detail. *5+5=10*

6. Discuss the land-use pattern in India and describe the various land-use planning and management approaches in India. *5+5=10*

7. Classify natural resources on the basis of availability and exploitation. Discuss three basic options that resource management can apply to minimize resource use. *5+5=10*

8. Discuss the bubble pattern of resource depletion. Describe the various approaches for dealing with mineral scarcity. *5+5=10*

9. What is sustainable land management ? Discuss the various constraints in integrated land management. *5+5=10*

10. Give a detailed account of types of wastes generated by the different mining steps. What are the different mining waste management methods ? *5+5=10*

11. What are the distinctive features of agrobiodiversity ? How is agrobiodiversity linked to climate change ?   *5+5=10*

12. What do you understand by traditional knowledge ? Discuss the inter-linkages between agrobiodiversity conservation, gender and traditional knowledge.   *5+5=10*

13. Give an account of the policy and institutional framework for agrobiodiversity conservation in India.   *5+5=10*

14. How can farmers be integrated into biodiversity conservation ? Discuss community based agrobiodiversity conservation.   *5+5=10*

15. Write short notes on any *four* of the following : $4×2\frac{1}{2}=10$

    (a) Factors leading to Biodiversity Loss

    (b) International Efforts to Conserve Biodiversity

    (c) Soil Profile

    (d) Hydrological Cycle

    (e) Transboundary Impact of Water Pollution

    (f) Energy from Biomass

    (g) Plant Variety Protection in India and PPVFR, 2001