

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

Term-End Examination

June, 2022

MED-003/MED-009 : ENERGY AND ENVIRONMENT

Time : 2 hours

Maximum Marks : 50

Note : *Question no. 1 is **compulsory**. Attempt any **three** questions from questions no. 2 to 6. Support your answers with suitable examples, wherever necessary.*

1. Attempt *all* parts :

4×5=20

- (a) What is Energy Planning ? Discuss the benefits of energy planning in about 200 words.
- (b) Explain the major concerns for a sustainable energy policy in India.
- (c) What are the major energy sources used by the people in India ? What are the problems related to their use ? State any four efforts that are being made in India to pursue GHG policies.

- (d) Discuss the functions of major components of a hydropower plant, with a suitable labelled diagram.
- 2.** (a) State any two factors governing the energy usage. Briefly mention the areas of energy usage in different sectors. 5
- (b) Name any four impediments to technology transfer. How can successful and effective technology transfer be ensured? 5
- 3.** (a) Describe the functioning of a biogas plant, with a suitable diagram. 5
- (b) What is Energy Economics? Discuss any two factors to be considered in energy economics. 5
- 4.** (a) What is a Small Hydropower Plant? Discuss its working, with a suitable diagram. 5
- (b) What is SPV? Briefly explain any two of its applications. 5
- 5.** (a) Briefly explain the causes of deforestation. How does deforestation affect biodiversity? 5
- (b) Define carrying capacity of an ecosystem. Differentiate between bio-physical and social carrying capacities. State important aspects of socially sustainable carrying capacity. 5

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

- (a) Waste as an Energy Resource
 - (b) Technological Measures for Energy Efficiency in Buildings
 - (c) 'No Regrets' Policies
 - (d) Home Energy Audit — Issues and Solutions
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