

No. of Printed Pages : 3 **MED-003/MED-009**

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

Term-End Examination

December, 2024

**MED-003/MED-009 : ENERGY AND
ENVIRONMENT**

Time : 2 Hours

Maximum Marks : 50

Note : (i) *Question No. 1 is compulsory.*

(ii) *Attempt any **three** questions from
question nos. 2 to 6.*

(iii) *Support your answers with suitable
examples, wherever necessary.*

1. Attempt all the parts in about **200** words each :

4×5=20

(a) Briefly explain the key objectives of sustainable energy policy of a nation.

- (b) Discuss the functions of major components of a hydropower plant with a suitable diagram.
 - (c) Outline any *five* guidelines for energy infrastructure development with respect to landuse planning.
 - (d) List the measures you can take to save energy while using a refrigerator and a washing machine.
2. (a) List any *five* measures that need to be taken by Indian government to meet the goals of energy policy. 5
- (b) Discuss the important issues of the North-South debate related to energy subsidies. 5
3. (a) Discuss the functioning of a simple Indian rural household biogas plant. 5
- (b) Explain how the sustainable carrying capacity of the Earth can be estimated. 5
4. (a) Discuss how CO₂ emissions are increasing in developing and industrialised nations in the first quarter of 21st century. 5
- (b) Define energy economics. Explain energy economics with respect to energy demand and its response to price. 5

5. (a) Discuss the criteria for site selection of wind turbines. List any *two* applications of wind energy. 5
- (b) Discuss the main sources of water and land pollution from the energy sector. 5
6. Write short notes on any *two* of the following :
2×5=10
- (a) Various scenarios of future energy use
- (b) No-regrets policies
- (c) Benefits of urban energy planning
- (d) Types of solar thermal collectors

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