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MED-003/009

**POST GRADUATE DIPLOMA IN
ENVIRONMENT AND SUSTAINABLE
DEVELOPMENT/MASTER OF
SCIENCE RENEWABLE ENERGY AND
ENVIRONMENT (PGDESD/MSCRWEE)**

Term-End Examination

June, 2023

MED-003/009 : 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 answer with suitable examples wherever necessary.*

1. Attempt all parts : 4×5=20

(a) State the key objectives of energy policy.

P. T. O.

- (b) Discuss important features of good land use planning in the perspective of energy.
- (c) What is the use of flat-plate thermal collector ? Explain *two* of its types.
- (d) Compare the demand-side end-use energy services and supply-side approaches to resolve the energy problem.
2. (a) Discuss the environmental impact on flora and fauna associated with the development of hydropower projects in about 250 words.
- 5
- (b) What is Clean Development Mechanism (CDM) ? Discuss its advantages and limitations.
- 5
3. (a) What are the sources of CO₂ emissions ? Briefly discuss the reasons for rising carbon dioxide emissions in India.
- 5
- (b) Discuss the health effects associated with energy consumption practices in rural India.
- 5

4. (a) What is biomass ? Discuss the major issues pertaining to the use of biomass in about 200 words. 5
- (b) What are the criteria for site selection for installation of wind turbines ? Mention important applications of wind energy. 5
5. (a) "Fuel switching helps in cleaning up the environment." Justify. 5
- (b) Discuss the importance of and technologies used in solar collectors and solar box cookers. 5
6. Write short notes on any *two* of the following :
2×5=10
- (a) Chemical energy in fossil fuels
- (b) Role of combined cycle gas turbine (CCGT) in energy efficiency improvement
- (c) No-regrets policies
- (d) Rebound effect