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MED-003

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

Term-End Examination

June, 2026

MED-003 : ENERGY AND ENVIRONMENT

Time : 2 Hours

Maximum Marks : 50

Note : Attempt any *five* questions.

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1. (a) Discuss the importance of governance
and finance for sustainable energy ? 5

- (b) Explain the basic principle of electricity generation in a nuclear power plant with a suitable diagram. 5
2. (a) What is energy planning ? Discuss the benefits of energy planning in about 200 words. 5
- (b) Discuss the key objectives of the sustainable energy policy of a nation. 5
3. (a) Describe the applications of biomass technologies based on direct combustion. 5
- (b) Discuss the working of a wind energy system with a well labelled diagram. 5
4. (a) Discuss the various scenarios of future energy use for 2050. 5
- (b) What is energy planning ? Describe any *four* benefits of energy planning. 5
5. (a) “Population growth and industrialization are the factors driving the worldwide energy demand.” Discuss. 5

- (b) Discuss the emission of carbon dioxide from the consumption of fossil fuels. 5
6. (a) What is energy economics ? Discuss any *two* factors to be considered in energy economics. 5
- (b) What are the key challenges in providing sustainable energy to the urban poor ? 5
7. Write short notes on any *two* of the following in about **200** words each : $2 \times 5 = 10$
- (a) Energy efficiency in buildings
- (b) Nuclear hazards
- (c) Geothermal energy
- (d) Solar photovoltaic technology

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