

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

**Term-End Examination
December, 2010**

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

Time : 2 hours

Maximum Marks : 50

Note : Question No. 1 is compulsory. Attempt any three questions from the remaining. Support your answer with suitable evidence wherever needed.

1. Attempt *any four* parts from the following :
- (a) List the components of a hydropower plant. 5
State the function of each component.
 - (b) List any four key aspects of energy planning process. Explain any one of them in not more than 100 words. 2+3
 - (c) State five specific technological measures 5
that can be taken to improve energy efficiency in buildings.
 - (d) State the ways in which the use of 5
renewable energy technologies affects the environment.
 - (e) List any two main categories of biomass feed stock materials. Explain the principle of gasification and mention two main uses of gasification. 2+2+1

2. (a) State the key elements of energy strategy. 5
(b) What is demand side energy management ? 2+3
State any three measures associated with DSM programmes.
3. (a) State four major environmental issues 2+3
related to hydropower. Describe any one in not more than 100 words.
(b) State the principle underlying solar 3+2
photovoltaic (SPV) technologies. Describe one application of SPV technologies in about 50 words.
4. (a) Discuss in not more than 150 words how 5
renewable energy technologies can be used for rural electrification in India ?
(b) List five key components of a wind energy 5
system and state the function of each component.
5. State three main factors on which energy demand 3+7
depends. Describe any two of them in about 100 words each.
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