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

**Term-End Examination
June, 2011**

**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* from the following : **4x5=20**
- List five activities in your daily routine involving energy use. Mention the production technologies being used in providing this energy.
 - List the five main benefits of Demand Side Management (DSM).
 - List four major problem areas that are responsible for energy losses in a building. Describe any one of these.
 - Mention the three main categories of raw feed stock materials for biomass technologies. Describe key benefits of any one of these.
 - Explain with the help of a schematic diagram the working of a simple hydropower plant.

2. (a) What are the different types of energy storage technologies ? Describe any one of these technologies highlighting the specific advantages. **2+3**
- (b) List the key stakeholders involved in the energy planning process and explain role of any one of these. **2+3**
3. (a) Mention three broad goals for energy sustainability and describe briefly any one of them. **3+2**
- (b) Explain the principle underlying solar thermal technologies. List four devices used in solar thermal applications. **3+2**
4. (a) What are the three flexible mechanisms to help meet the challenge of combating the climate change ? Explain the advantages and limitations of any one of them. **2+3**
- (b) Mention any four major challenges in rural energy planning in India. Describe any one of them, in brief. **2+3**
5. (a) Distinguish between the demand side and supply side approaches to the energy problem. **5**
- (b) What do you understand by carbon sequestration ? Explain various methods used for carbon sequestration. **2+3**