|                           | Utech                          |
|---------------------------|--------------------------------|
| Name:                     |                                |
| Roll No. :                | A Grant of Sanding and Carlons |
| Invigilator's Signature : |                                |

# CS/B.Tech/CT/SEM-8/HU(CT)-803/2013 2013

## **ENERGY AND ENVIRONMENT MANAGEMENT**

Time Allotted: 3 Hours Full Marks: 70

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

# GROUP - A ( Objective Type Questions )

- 1. Answer the following:
  - A. Choose the correct alternatives for the following:

 $5 \times 1 = 5$ 

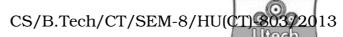
- i) Which of the following sources has the highest yearly contribution to the worldwide energy pool?
  - a) Coal
  - b) Oil
  - c) Natural Gas
  - d) Nuclear Fuel.

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- ii) Which country does generate per capita maximum electricity?
  - a) Saudi Arabia
  - b) Germany
  - c) Canada
  - d) U.K.
- iii) The most energy-intesive components of glass manufacture is
  - a) Annealing
  - b) Melting
  - c) Forming
  - d) Batch mixing.
- iv) Which of the following bio-fuels is still in greatest demand in rural India?
  - a) Fuel Wood
  - b) Crop Residue
  - c) Dung Cake.
- v) An energy audit report should not contain
  - a) Executive Summary
  - b) Auditor's Tool-box
  - c) Energy Bill Analysis
  - d) Action Plan.

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- B. What are the the full forms of the following abbreviations?  $5 \times 1 = 5$ 
  - vi) SEMP
  - vii) EMA
  - viii) EIA
  - ix) QMS
  - x) PDCA.

#### **GROUP - B**

#### (Short Answer Type Questions)

Answer any *three* of the following.  $3 \times 5 = 15$ 

- 2. Outline the goals of seventh to tenth five-year plans with reference to energy use.
- 3. What is the objective of subsidy regime in regard to energy supply to the rural sector? Discuss its effect on irrigation.

3 + 2

- 4. What is the concept of environment? Illustrate the interaction of environmental concept with a diagram. 2 + 3
- 5. Draw the flow diagram which evolves Strategic Environmental Act (SEA).

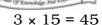
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#### **GROUP - C**

## (Long Answer Type Questions)

Answer any *three* of the following.



- 6. What are the sources of energy for glass making? Discuss the relationship between cullet use and energy saving. How can the amount of energy be reduced in conventional melting furnaces? Make a comparative statement about theoretical vs actual energy use in melting.

  3 + 5 + 4 + 3
- 7. What are the objectives of National Energy Policy? Enumerate the Reform strategies to improve Energy Efficiency in transport sector. What are the salient features of Coal Sector Reforms? 4 + 7 + 4
- 8. What are meant by ISO 9001 and ISO 14001? What is the difference between them? What are the benefits of ISO 9001? What are the requirements of a company to achieve ISO 14001? Enumerate the advantages of ISO 14001.

2 + 1 + 4 + 4 + 4

9. What do you mean by waste minimization? Explain waste minimization with a hierarchy diagram. What is the connection between poverty and environment? 4 + 3 + 8

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