MAULANA ABUL KALAM AZAD UNIVERSITY OF TECHNOLOGY, WEST BENGAL

Paper Code : CE(ES)302   Energy Science & Engineering

UPID : 003502

Time Allotted : 3 Hours

Full Marks :70

The Figures in the margin indicate full marks.
Candidate are required to give their answers in their own words as far as practicable

Group-A (Very Short Answer Type Question)

1. Answer any ten of the following : [1 x 10 = 10]

   (I) Disadvantage of most of the renewable energy sources?

   (II) What is Nuclear energy?

   (III) What is in a LEED certification?

   (IV) Uses of Hydroelectricity?

   (V) How do you make a building sustainable?

   (VI) Non-renewable resource is a.................

   (VII) Define sonic energy?

   (VIII) How do you start a power plant?

   (IX) How is height of wave determined?

   (X) GRIHA has been prepared by ....

   (XI) BTU is measurement of ....

   (XII) Which lightening stroke is most dangerous?

Group-B (Short Answer Type Question)
Answer any three of the following [5 x 3 = 15]

2. How are energy systems classified? [5]

3. What do you mean by clean energy? [5]

4. What are the 4 types of coal? [5]

5. What is the most important sustainable development? [5]

6. How the economic system determines production? [5]

Group-C (Long Answer Type Question)
Answer any three of the following [15 x 3 = 45]

7. (a) What are 5 facts about fossil fuels? [5]

   (b) How can we save fossil fuels? [5]

   (c) Are fossil fuels renewable? [5]

8. (a) Why is clean energy important for sustainable development? [5]

   (b) What is the importance of energy sustainability? [5]

   (c) What makes sustainable development important? [5]

9. (a) What are 5 examples of biomass? [5]

   (b) What are biomass fuels? [5]

   (c) How do hydro dams work? [5]

10. (a) What is the most sustainable form of energy? [5]

    (b) What are some examples of sustainable energy? [5]

    (c) What are the different types of sustainable development? [5]

11. (a) Why are hydroelectric power plants built at the bottom of a dam instead of at the top? [5]

    (b) Why are hydroelectric dams needed? [5]

    (c) How are hydro dams built? [5]