

22312

21819

3 Hours / 70 Marks

Seat No.

--	--	--	--	--	--	--	--

- Instructions* –
- (1) All Questions are *Compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

- 1. Attempt any FIVE of the following: **10****
- a) Classify energy sources.
 - b) Write four application of biomass energy.
 - c) Write two importance of energy conservation.
 - d) Write the types of energy audit.
 - e) Define the terms:
 - (i) Total cost
 - (ii) Fixed cost
 - f) Describe the concept and types of market.
 - g) Define simple interest and compound interest.

P.T.O.

- 2. Attempt any THREE of the following:** **12**
- a) Explain the energy policy for a chemical plant.
 - b) Describe the concept of solar energy with a neat sketch.
 - c) Explain energy conservation methods for the industrial application.
 - d) Describe the advantages and disadvantages of pay out period method.
- 3. Attempt any THREE of the following:** **12**
- a) Explain the construction and working of any one type of biogas plant.
 - b) Define depreciation. Explain concept of depreciation and write the factors affecting depreciation.
 - c) Describe the duties and responsibilities of energy manager.
 - d) Distinguish between solid fuel and liquid fuels with example.
- 4. Attempt any THREE of the following:** **12**
- a) Explain gross calorific value (G.C.V) and net calorific value (N.C.V).
 - b) Write the benefits of solar energy and Biomass energy.
 - c) Describe environmental benefits and problems of wind energy
 - d) Classify energy audit based on procedure and explain walk through audit.
 - e) Distinguish between commercial and non commercial energy.
- 5. Attempt any TWO of the following:** **12**
- a) Describe the concept of different type of taxes (any three).
 - b) Write the applications of:
 - (i) Coal
 - (ii) Petroleum product
 - (iii) Natural gas (any six applications).
 - c) Write any type of a balance sheet. Explain how it is prepared.

6. Attempt any TWO of the following:**12**

- a) Describe:
 - (i) Law of demand and supply
 - (ii) Methods of measurement for demand and supply.
 - b) Write different methods of calculation of depreciation. Explain any one of them.
 - c) Describe different factors affecting cost estimation and their effect on it.
-