

# CBCS SCHEME

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15EE653

## Sixth Semester B.E. Degree Examination, Aug./Sept. 2020 Energy Audit and Demand Side Management

Time: 3 hrs.

Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

### Module-1

- 1 a. Explain how energy sources are classified give suitable example of each. (08 Marks)  
b. Briefly explain Indian energy scenario. (08 Marks)

OR

- 2 a. Explain 10-step methodology of detailed energy auditing. (08 Marks)  
b. Write a note on data acquisition system and data loggers. (08 Marks)

### Module-2

- 3 a. Briefly explain energy saving measures in furnace. (08 Marks)  
b. With a neat diagram explain fire tube boiler. (08 Marks)

OR

- 4 a. Discuss the role of excess air in boiler. (08 Marks)  
b. Give the classification of furnace. (08 Marks)

### Module-3

- 5 a. With a schematic diagram explain the components of air conditioning system. (08 Marks)  
b. List and explain load management technique. (08 Marks)

OR

- 6 a. Explain the causes and affect of harmonics. (08 Marks)  
b. Explain energy saving measures in HVAC. (08 Marks)

### Module-4

- 7 a. What are the methods used in energy conservation of a motor and explain in brief. (08 Marks)  
b. Briefly explain different lighting control systems. (08 Marks)

OR

- 8 a. What are the limitations in adopting Energy Efficient Motor (EEM). (08 Marks)  
b. Discuss the different energy saving opportunity in lighting system. (08 Marks)

### Module-5

- 9 a. What is Demand Side Management (DSM) and mention the benefits of DSM. (08 Marks)  
b. Discuss the methods of energy saving measures in new building. (08 Marks)

OR

- 10 a. Write a note on DSM implementation issues. (08 Marks)  
b. Discuss the energy saving opportunities in : i) Agricultural sector  
ii) Transport sector. (08 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and/or equations written eg, 42+8=50, will be treated as malpractice.