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P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Eighth Semester, B.E. - Electrical and Electronics Engineering

Semester End Examination; Aug. / Sep. - 2020

Energy Auditing and Demand Side Management

Murli Krishna
2.9.2020

Time: 3 hrs

Max. Marks: 100

- Note:** i) Answer **TWO** full questions, selecting **ONE** full question from **UNIT - I** and **UNIT - II**.
ii) Answer any **THREE** full questions, choosing from **UNIT - III**, **UNIT - IV** and **UNIT - V**.

UNIT - I

- 1 a. Explain the energy conservation techniques used to reduce the energy costs. 12
b. Write a note on objectives of energy conservation Act. 2001. 8

OR

- 2 a. What is time value of money concept? Explain a cash flow model for single payment present worth method. 10
b. List the various methods of depreciation and explain any one of them. 10

UNIT - II

- 3 a. Explain ten steps methodology for detailed energy auditing. 12
b. Explain the need for energy Audit and its importance in industry. 8

OR

- 4 a. Explain energy Audit Instruments. 14
b. Briefly explain the role of Energy management team. 6

UNIT - III

- 5 a. Mention the causes of low power factor. 8
b. Explain the disadvantages of low power factor. 12
6 a. Explain the location of capacitors with a power distribution diagram. 10
b. Write a note on energy efficient motors. 10

UNIT - IV

- 7 a. Explain the benefits of DSM. 10
b. Explain the concept of demand side management. 10
8 a. Explain the different techniques of DSM. 14
b. Briefly explain the customer acceptance of demand side management. 6

UNIT - V

- 9 a. Explain the DSM implementation issues. 12
b. Explain the implementation strategies of demand side management. 8
10 a. Explain valley filling and peak clipping. 8
b. Explain the organization of energy conservation program. 12

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Murli Krishna
2.9.2020

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