Code: 13A03806 R13

B.Tech IV Year II Semester (R13) Regular Examinations April 2017

ENERGY MANAGEMENT

(Mechanical Engineering)

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) What are managerial objectives?
(b) What are steps in capital budgeting?
(c) Write short notes on time value of money.
(d) Write about pay back method.
(e) Write short notes on mortality curves.
(f) What are functions of project manager?
(g) Enumerate types of projects.
(h) What is cost index?
(i) How to prepare load profile?
(j) Explain about energy potential in India.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2 What are different costs in project report? Explain importance of each of it in project planning.

OR

3 Explain about present worth factor and capital recovery factor.

UNIT – II

4 Why depreciation is important in project planning? Differentiate between various depreciation methods.

OR

5 A company purchased an equipment Rs.2,50,000. The depreciation is provided at a rate of 15% per annum. Assume books of accounts are closed at the end of financial year. Prepare machinery account for 3 years using two different depreciation methods.

UNIT – III

6 Write detailed notes on energy management in manufacturing industry.

OR

7 There are two projects A and B are under consideration to select. The capital cost of project A is Rs.1 lakhs and of project B is Rs.2 lakhs. The net cash flow of project A are 30000, 20000, 40000, 100000, 220000, whereas NCI of project B are 60000, 10000, 30000 100000, 200000. Suggest best project considering payback period and NPV methods. Assume annual interest is 10%.

UNIT – IV

8 What is the necessity of energy auditing? Explain how Sankey diagram is used in energy management.

OR

9 Name different types of energy audits. Explain how can energy checklists used in energy management process.

UNIT – V

10 Describe about energy resources in India and potential of each for future.

OR

11 Discuss on energy policy of India. Explain economic impact of domestic energy production.

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