

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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