

B.Tech IV Year II Semester (R15) Advanced Supplementary Examinations July 2019

**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 the classification of costs?
- (b) Define time value of money.
- (c) What is breakeven point?
- (d) Name any two physical depreciation.
- (e) Define IRR (Internal Rate of Return method).
- (f) What is an energy management?
- (g) Define energy auditing.
- (h) Name the types of energy audits.
- (i) What is energy transmission?
- (j) Define level of power generation.

**PART – B**

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

**UNIT – I**

2 Discuss the principle of present worth method with an example.

**OR**

3 A person takes a loan of Rs. 1200 from a bank at an interest of 18% p.a. Find the amount if the interest is compounded: (i) Annually. (ii) Staff yearly. (iii) Quarterly. (iv) Monthly.

**UNIT – II**

4 Define depreciation and explain the various causes of depreciation.

**OR**

5 A Machine is purchased for Rs. 10,000, the estimated life of the machine is 4 years and the scrap value is Rs. 400. The rate of interest on the depreciation found is 4%. Calculate the book value of the machine at the end of each year using sinking fund method and sum of years digits method.

**UNIT – III**

6 Explain briefly the concepts and general principle of energy management.

**OR**

7 Discuss the role and qualities of a project manager &amp; explain about purpose of project management.

**UNIT – IV**

8 List the types of energy conservation methods and discuss their merits and demerits.

**OR**

9 Explain the different energy conservation schemes that are used for reduction in energy use.

**UNIT – V**

10 Explain briefly the energy resources in India.

**OR**

11 Write a short note on:

- (a) Indian energy policy.
- (b) Domestic energy production.

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