Code: 15A03806

R15

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 & 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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