

IV B.Tech I Semester Supplementary Examinations, April/May 2005
ENERGY MANAGEMENT
(Electrical & Electronic Engineering)

Time: 3 hours**Max Marks: 70**

Answer any FIVE Questions
All Questions carry equal marks

1. (a) Explain the functions of energy manager.
 (b) Give the check list for fixing the responsibility and authority for energy manager by top management.
2. (a) Discuss with suitable examples the general principles of energy management.
 (b) Discuss the steps in organizing an energy management program.
3. Discuss the functions of an energy manager in initiating and managing an energy management program with particular reference to
 - (a) Planning
 - (b) Loading
 - (c) Controlling
 - (d) Promoting and
 - (e) Monitoring
4. (a) Mention various methods of depreciation and explain any two in detail.
 (b) An asset has a first cost of Rs 2,54,000, and has a salvage value of Rs. 75,000 at the end of 7 years of life. Calculate the depreciation and book value by decline balance method of depreciation.
5. Discuss briefly the various types of the replacement problems. The following table gives the running costs per year and resale price of certain equipment whose purchase price is Rs. 5000.

Year	1	2	3	4	5	6	7	8
Running Cost (Rs)	1500	1600	1800	2100	2500	2900	3400	4000
Resale value(Rs)	3500	2500	1700	1200	800	500	500	500

When should be the machine be replaced.

6. (a) Illustrate the ways of suggesting energy savings for the lighting systems in an industrial area.
 (b) Discuss the role of Energy efficient motors in conservation of energy.
7. (a) What qualities should energy manager posses?
 (b) Explain the procedure for constructing Sankey diagram and Load profiles with suitable examples.

8. Write short note on:

- (a) Risk analysis
- (b) Various Project Evaluation methods
- (c) Energy conservation schemes
- (d) Various phases in an energy management program.

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