

Question Paper Code : Q 2328

B.E./B.Tech. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2009.

Eighth Semester

(Regulation 2004)

Mechanical Engineering

MG 1452 — ENGINEERING ECONOMICS AND COST ANALYSIS

(Common to Production Engineering/Automobile Engineering)

(Common to B.E. (Part-Time) Seventh Semester-Regulation 2005)

Time : Three hours

Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. State the law of Demand.
2. What is Break-Even Analysis?
3. Explain the concept of Discounting.
4. What is Value Engineering?
5. What is Present worth method of comparing alternatives?
6. How is rate of return method useful in evaluating the alternatives?
7. What is Predictive Maintenance?
8. What are all the types of Replacement Problem?
9. State the objectives behind provision of depreciation.
10. What is Sinking fund method of depreciation?

11. (a) (i) Explain as to how the concept of elasticity of demand is superior to concept of law of demand.
- (ii) Analyse the various types of elasticity of demand and their usefulness. (4 + 12)

Or

- (b) What is cost volume profit analysis? State the assumptions and applications of break even analysis. (4 + 4 + 8)
12. (a) What are all the function, aims of value engineering? Discuss the value engineering procedure. (3 + 3 + 10)

Or

- (b) (i) What is time value of money? How is it useful in taking investment related decision?
- (ii) Compute the present value of Rs. 1,000 receivable 6 years hence if the rate of discount is 10 percent? (4 + 4 + 8)
13. (a) Discuss with example, present worth method and future worth method of comparison of alternatives.

Or

- (b) Compare annual equivalent method and rate of return method of comparing alternatives with appropriate examples.
14. (a) Analyse the various types of maintenance and their relative merits and demerits.

Or

- (b) (i) Trace out the types of replacement problem.
- (ii) Develop a simple probabilistic model for items which fail completely.

15. (a) (i) Analyse the causes and objectives behind the provision of depreciation.

(ii) Original cost of the machine Rs. 10,000

Life time 5 years

Scrap or residual value Rs. 1,000.

Find out the rate of depreciation for the machine using straight line method. (6 + 10)

Or

(b) (i) Write about the procedure to adjust inflation.

(ii) Give out examples on comparison of alternatives and determination of economic life of asset. (8 + 8)