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Question Paper Code : 13060

B.E./B.Tech. DEGREE EXAMINATION, MAY/JUNE 2012.

Sixth Semester

Automobile Engineering

080120038 — ENGINEERING ECONOMICS AND FINANCE

(Common to Mechanical Engineering)

(Regulation 2008)

Time : Three hours　　　　　　　　　　　　　　　　Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1. Differentiate engineering efficiency and economic efficiency.

2. What is sunk cost?

3. List few factors that need to be considered in making a "make or buy" decision.

4. What is value engineering?

5. What are cash equivalents?

6. Is it possible for a cash balance to decrease when the company makes a net profit for any given period?

7. What is preventive maintenance?

8. What are the major factors that determine the economic life of an asset?

9. List few causes of depreciation.

10. What are the assumptions for straight line method of calculating depreciation?

11. (a) Explain how supply and demand determine the equilibrium price. What happens if the supply curve shifts to the right? Illustrate.

Or

(b) Max & co has the following cost data for two successive periods.

	Year I (Rs.)	Year II (Rs.)
Sales	50,000	1,20,000
Fixed Costs	10,000	20,000
Variable Cost	30,000	60,000

Determine the break even point.

12. (a) (i) Why money to be received in the future is worth less than the money to be received immediately? (6)

(ii) Describe the procedure of value engineering with an example. (10)

Or

(b) Compare and contrast the six basic types of time value of money problems with an example situation in which they would each apply.

13. (a) Shiva has arranged to buy some testing machine for his hospital. He estimates that it will have a 6 year useful life and no salvage value at the end of equipment life. The dealer has offered two alternative ways to pay for the equipment.

(i) Par Rs. 90,000 immediately and Rs. 10,000 at the end of one year.

(ii) Pay nothing until the end of fourth year when a single payment of Rs. 1,25,000 must be made.

If he thinks that 14% is a suitable interest rate, which alternative is the best for him?

Or

(b) XYZ finance is coming with an option of accepting Rs.10,000 now and paying a sum of Rs.1,60,000 after 20 years. ABC finance is coming with a similar option of accepting Rs.10,000 now and paying a sum of Rs.3,00,000 after 25 years. Compare and select the best alternative based on the future worth method of comparison with 15% interest rate, compounded annually.

14. (a) Give a detailed account on the various types of replacement problems with examples.

Or

(b) (i) Explain the various maintenance types with examples. (8)

(ii) What are the general guidelines in framing a replacement policy? (8)

15. (a) Enumerate the methods of calculating depreciation? Discuss briefly the merits and demerits of these methods.

Or

(b) On 1st April, 2005, Raju Ltd purchased a machine for Rs.4,00,000. The company incurred Rs.28,000 towards freight and insurance, and Rs.12,000 towards installation charges. The estimated useful life of machinery is four years. The estimated scrap value of machinery on the expiry of its useful life is Rs. 40,000. On 1st April, 2008, the company spent Rs.10,000 towards the machine's repair. Calculate the depreciation amount and the rate of depreciation. Prepare the machinery account for the first four financial years ending March 31st according to traight line method under the following conditions.

(i) If no provision for depreciation account is maintained and

(ii) If provision for depreciation account is maintained.

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