

# CBCS Scheme

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15ME51

Fifth Semester B.E. Degree Examination, Dec.2017/Jan.2018

## Management and Engineering Economics

Time: 3 hrs.

Max. Marks: 80

Note: 1. Answer FIVE full questions, choosing one full question from each module.  
2. Use of chart is permitted.

### Module-1

- 1 a. Define Management and bring out its nature and characteristics. (08 Marks)  
b. Explain the Modern Management Approaches. (08 Marks)

OR

- 2 a. Briefly explain the important steps in planning. (08 Marks)  
b. What are the types of decision? Explain with example. (08 Marks)

### Module-2

- 3 a. Briefly explain the principles of organization. (08 Marks)  
b. What is Recruitment? Explain the recruitment process. (08 Marks)

OR

- 4 a. Explain the different leadership styles. (08 Marks)  
b. Explain the essentials of a sound control system. (08 Marks)

### Module-3

- 5 a. With the help of sketch, explain the problem solving process in decision making. (08 Marks)  
b. A Professor is planning for his retired life, he has 15 more years of service. He would like to deposit 20% of salary, which is Rs 15000 at the end of First year and thereafter he wishes to increase his deposit by Rs 2500 more every year along with Rs 15000 for the next 14 years. What will be the maturity amount of this deposit, if the interest rates are 10% and 14% per year? (08 Marks)

OR

- 6 a. Briefly explain the law of supply and demand. Enlist the demand determinants. (08 Marks)  
b. Determine the effective interest rate for a nominal annual rate of 8% that is compounded :  
i) Daily (Assume 365 days/year) ii) Monthly iii) Quarterly iv) Semi-Annually. (08 Marks)

### Module-4

- 7 a. Explain the conditions for present worth comparisons. (08 Marks)  
b. The lease on a warehouse amounts to Rs 5000 per month for five years. If the payments are made on the first of each month, what is the future worth at the end of five years at 12% interest rate compounded monthly? (08 Marks)

OR

- 8 a. Explain IRR, ERR and MARR. Enlist the misconcepts of IRR. (08 Marks)  
b. A farm house can be purchased for Rs 90,000 and expected resale value after 20 years is Rs 60,000. If the annual rental income is Rs 11800 and expenses Rs 4700. What will be the rate of return earned on this farm house? (08 Marks)

**Module-5**

- 9 a. Explain how the selling price is fixed for a job, giving all the components of cost, with suitable example. (08 Marks)
- b. A firm is producing 100 units per day. The direct material cost is found to be Rs 160. The direct labour cost is Rs 200. The factory overheads chargeable to it is Rs 250. If the selling expenses are 40% of the factory cost, what must be the selling price of each unit to realize a profit of 15% of selling price? (08 Marks)

**OR**

- 10 a. What is Depreciation? List and discuss the causes of depreciation. (08 Marks)
- b. The initial cost of machine is Rs 25000 and it will have a salvage value of Rs 2000 after a period of six years. Using reducing balance method, calculate the book value of the machine at the end of each year and plot a graph of depreciation against number of years. (08 Marks)

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