D 90174

(Pages : 2)

Name......................................

Reg. No..................................
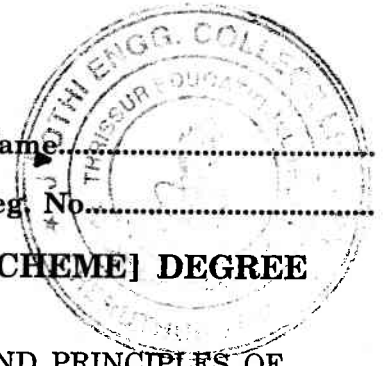
FIFTH SEMESTER B.TECH. (ENGINEERING) [09 SCHEME] DEGREE EXAMINATION, NOVEMBER 2015

ME/PTME/AM/PT/MT 09 503—ENGINEERING ECONOMICS AND PRINCIPLES OF MANAGEMENT

Time : Three Hours

Maximum : 70 Marks

Section 1 (Engineering Economics) and Section 2 (Principles of Management) are to be answered in **separate** *answer-sheets.*

Section 1 (Engineering Economics)

PART A

1. Define Engineering Economics.   (2 marks)

2. What is meant by value analysis ?   (2 marks)

3. What is sunk cost ?   (1 mark)

PART B

4. Gamma associates has the following details. Fixed cost = Rs. 20,00,000, Variable cost per unit = Rs. 100, Selling price per unit = Rs. 200. If the actual production quantity is 60,000, (i) contribution ; and (ii) margin of safety.

5. How much money must be deposited in a savings account so that Rs. 5,500 can be withdrawn 12 years hence, if the interest rate is 9 % per year, compounded continuously, and if all the interest is allowed to accumulate ?

6. If the interest rate is 8 % per year, compounded annually, what is the equivalent present value of Rs.10,000 (a) 1 year from today ? ; (b) 5 years from today ?

(2 × 5 = 10 marks)

PART C

7. Explain the inflation and deflation concepts in detail.

Or

8. Determine the present worth of the following series of cash flows, based on an interest rate of 12 % per year, compounded annually : Rs. 0 (end of year 0), Rs. 1,000 (1), Rs. 2,000 (2), Rs. 3,000 (3), Rs. 4,000 (4), Rs. 4,000 (5), Rs. 4,000 (6).

9. Define break-even point. Draw a break-even chart and explain its components.

Or

Turn over

10. For the series of cash flows :

End of year	0	1	2	3	4	5
Cash flow Rs. 1,000	−3	0	6	6	0	−10

determine the NPV at annual interest rates 0 %, 5 %, 10 %, 20 %, 30 %, 50 % and 70 %. From a graph of the results, find the rate(s) of return.

(2 × 10 = 20 marks)

Section 2 (Principles of Management)

PART A

1. What is organizing ?   (2 marks)

2. What is marketing ?   (2 marks)

3. Distinguish between power and authority ?   (1 mark)

PART B

4. Explain the barriers to the organizational change.

5. Discuss the allocation of overheads in cost accounting.

6. Describe the project float.

(2 × 5 = 10 marks)

PART C

7. Describe the functions of management.

Or

8. Explain the overhead variance in detail.

9. Discuss in detail the process of recruiting team members.

Or

10. Explain the sales process in detail.

(2 × 10 = 20 marks)