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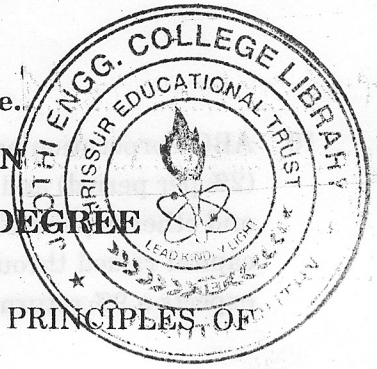
Name.

Reg. No.

**FIFTH SEMESTER B.TECH. (ENGINEERING) DEGREE  
EXAMINATION, OCTOBER 2011**

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

(2009 Admissions)



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**

**PART A**

1. Define economics. (2 marks)
2. When to apply value analysis? (2 marks)
3. What is another name of economic efficiency? (1 mark)

**PART B**

4. Consider the following data of a company for the year 1998: Sales = Rs. 80,000, Fixed cost = Rs. 15,000, Variable cost = Rs. 35,000. Find (a) Contribution, (b) Profit, (c) BEP.
5. An engineer has received Rs. 10,000 from his employer for a patent disclosure. He has decided to invest the money in a 15-year savings certificate that pays 8% per year compounded annually. What will be the final value of his investment, in terms of today's dollars, if inflation continues at the rate of 6% per year?
6. A machine which costs Rs. 50,000 when new has a 10-year lifetime and a salvage value equal to 10% of its original value. Determine the capital recovery, based upon an interest rate of 8% per year, compounded annually.

(2 × 5 = 10 marks)

**PART C**

7. Explain in detail the law of supply and demand.

*Or*

8. At what rate must funds be continuously added to a savings account in order to accumulate Rs.10,000 in 15 years, if interest is paid at 5% per year, compounded continuously?
9. Describe the technical and economical efficiency in detail.

*Or*

**Turn over**

10. ABC Corporation has decided to sell Rs.1,000 bonds which will pay semiannual dividends of Rs.20 (2% per period) and will mature in 5 years. The bonds are sold at Rs. 830, but after brokers' fees and other expenses the company ends up receiving Rs. 760. (a) what is the company's cost of the capital raised through the sale of these bonds? (b) Is the bond a good buy for an investor who expects a 9% return on his investments?

(2 × 10 = 20 marks)

**Section 2****PART A**

1. What do you understand by management science theory? (2 marks)
2. Define profit and loss in financial management. (2 marks)
3. What do you meant by strategy? (1 mark)

**PART B**

4. Describe the nature of management decisions.
5. Explain the profit and loss statement in financial management
6. Describe the marketing mix in detail.

(2 × 5 = 10 marks)

**PART C**

7. Explain the decision making process with layout.

*Or*

8. Describe the typical steps in the project management.
9. Explain the matrix organization structure with flow chart.

*Or*

10. Describe in detail the direct labour variance.

(2 × 10 = 20 marks)