Registration No. :

B. Tech

HSSM 3204

Special Examination – 2012

ENGINEERING ECONOMICS AND COSTING

Full Marks – 70

Time : 3 Hours

Answer Question No. 1 which is compulsory and any five from the rest.
The figures in the right-hand margin indicate marks.

1. Answer the following questions :   2 ×10

    (a) What is effective rate of interest ?

    (b) What happens to the present value of an annuity when the interest rate rises ?

    (c) Distinguish between the money market and capital market.

    (d) What do you mean by linear graphic method of break-even analysis ?

    (e) Define three major roles of RBI.

    (f) What is depletion ?

    (g) What do you mean by price elasticity of demand ? .

    (h) Accumulate a principal of Rs.600 for 5years 9 months at 6 percent compounded monthly. How much interest is earned ?

    (i) How do you mean by Time Value of Money ?

    (j) Write one feature of IRR method.

2. The following data are available in respect of two mutually exclusive projects. Which project is more suitable on the basis of future worth method of comparison at $i = 20\%$?   10

Particulars	Project A	Project B
Initial Cost (Rs.)	80,00,000	70,00,000
Life (years)	12	12
Annual maintenance Cost (Rs.)	8,00,000	9,00,000
Salvage value after usable life	5,00,000	4,00,000

The future worth table values :

F/P, 20% , 12 = 8.916   A/F, 20%,   12 = 0.0253

F/A, 20% , 12 = 39.581   P/F, 20%,   12 = 0.1122

3. (a) Discuss the different factors responsible for causing depreciation.   5

    (b) Explain the Algebraic method in a breakeven analysis.   5

4. Explain the different stages of the law of variable proportion and prove that stage of diminishing return is the effective stage of operation for a rational producer.   10

5. (a) Distinguish between Micro economics and Macro economics. Define the different aspects of Micro and Macro economics.   5

    (b) Explain, with the help of examples , the importance of equivalent annual worth.   5

6. The following figures relate to a manufacturing company :   10

	2011 Rs.	2012 Rs.
Sales	50,000	80,000
Profit	10,000	25,000

Find out :

(a) P/V ratio

(b) Fixed Cost

(c) Break-even point

(d) Margin of safety in 2012.

7. Contrast the IRR and the NPV methods. Under what circumstance may they lead to   10

(a) comparable recommendations .

(b) give conflicting recommendations.

8. Write notes on :   3+3+4

(a) Cost sheet

(b) Commercial Bank

(c) Profit –Volume Analysis