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Total number of printed pages – 3

B. Tech
HSSM 3204

Third Semester Examination – 2012-13
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) If demand equation is given by $D = 500 - P$ and the supply equation is given by $S = 50 + 4P$, what would be the price ?
 - (b) What are the factors affecting income elasticity of demand ?
 - (c) Explain why more inputs yields comparatively less of production.
 - (d) What are the reasons for fall in the value of money over years ?
 - (e) Why should there be public projects when private projects are performing exceedingly well in modern days ?
 - (f) What is meant by Opportunity Cost ? Give two examples.
 - (g) What is the significance of angle of incidence in the study of BEP analysis ?
 - (h) What are differences of SL and WDV methods of charging depreciation ?
 - (i) What is the role of FIs in rapid industrialization in the country ?
 - (j) Distinguish between the capital market and money market.

P.T.O.

2. A company invests in one of the two mutually exclusive alternatives. The life of both alternatives is estimated to be 5 years with the following investments, annual returns and salvage values. 10

	Alternative	
	A	B
Investment (Rs.)	300,000	400,000
Annual equal return (Rs.)	100,000	120,000
Salvage value (Rs.)	25,000	40,000

Determine the best alternative based on the annual equivalent method by assuming $i = 15\%$.

The Table values are given as under :

For $n = 5$; $(F/P, i, n = 2.011)$; $(P/F, i, n = 0.4972)$; $(F/A, i, n = 6.742)$; $(A/F, i, n = 0.1483)$

$(P/A, i, n = 3.3522)$; $(A/P, i, n = 0.3503)$; $(A/G, i, n = 1.7228)$

3. A 5 per cent rise in price of a good leads to 20 percent fall in its demand. A consumer buys 80 units of the good at a price of Rs. 10 per unit. How many units will the consumer buy when price changes to Rs. 11 ? 10
4. Explain with diagram and schedule how price is determined under perfect competition ? 10
5. From the following data find out the information asked for : 10
- | Year | Sales (Rs.) | Profit (Rs.) |
|------|-------------|--------------|
| 2011 | 120000 | 10000 |
| 2012 | 150000 | 16000 |
- P/V Ratio
 - Fixed cost
 - Variable cost
 - BEP
 - Sales volume required for earning a profit of Rs. 20000
6. Give a schematic diagram of the banking system in India and discuss the role of commercial Banking in the economic development of a country. 10

7. From the following information of a manufacturing company for the month of January 2009, prepare cost sheet showing the cost of goods produced. 10

	Rs.
Cost of raw-materials on 1.1.2012	15000
Raw materials purchased	190000
Carriage on purchases	4000
Chargeable expenses	10000
Direct wages paid	80000
Factory overheads	30000
Cost of work-in-progress on 1.1.2012	70000
Cost of raw materials on 31.1.2012	30000
Cost of work-in-progress on 31.1.2012	50000
Office and Administrative overheads	24000
Cost of Stock of finished goods on 1.1.2012	76000
Cost of stock finished goods on 31.1.2012	60000
Selling and distribution overheads	16000
Sales	400000

8. Distinguish between NPV and IRR. Give the situation where present worth method is preferable to the IRR method. 10