Total number of printed pages – 4

B. Tech/HSSM 4201

B. Pharm/PH.3.10.

THIRD SEMESTER EXAMINATION – 2005

ENGINEERING ECONOMICS & 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 for the questions.

1. Answer the following in *one* or *two* sentences each : 2×10

   (i) What is time value of money ?

   (ii) What do you mean by compounding ?

   (iii) What is 'net present worth' ?

P.T.O.

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(iv) How will you value a bond ?

(v) Define 'rate of return'.

(vi) What do you mean by capital rationing ?

(vii) What is 'sensitivity analysis' ?

(viii) What is depletion ?

(ix) What is joint product ?

(x) What is meterial volume variance ?

2. A sum of money amounting Rs. 2,000 is invested at the beginning of year 1 at 8% for one year. Show the interest earned, future value and effective annual interest rate if compounding takes place annually, biannually, quarterly and monthly. Comment on the results. 10

3. State the importance of discounted cash flow techniques. Differentiate between IRR and NPV with help of one example. 10

4. How will you analyse a public project ? Discuss cost-benefit analysis in this kind of project ? 10

5. Explain the factors affecting the amount of depreciation. Discuss the written-down value method with the help of one example. 10

6. Utkal Ltd. provides the following data for the year ended 31st March, 2005 : 10

Selling price per unit	:	Rs. 10
Production and Sales	:	400 units
Variable cost per unit	:	Rs. 5
Fixed cost	:	Rs. 1,000

You are required to show the impact of the following actions on the P/V ratio, break-ever point and margin of safety :

(a) The variable cost increases to Rs. 6 per unit.

(b) The fixed cost increases to Rs. 1,500

(c) The selling price increases to Rs. 20 per unit.

7. (a) Why is it essential to divide the costs into fixed and variable ? Explain with examples. 5

(b) Explain the treatment of abnormal loss and abnormal gain in process cost. 5

8. (a) Outline the significance of calculating different overhead cost variances. 5

(b) Explain two techniques of cost control. 5

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