

	Process A	Process B	Process C
Direct material	Rs. 5,200	Rs. 4,000	Rs. 6,000
Direct wages	Rs. 4,000	Rs. 6,000	Rs. 8,000
Output in units	950	850	700
Normal loss in units	50	100	150
Value of scrap per unit	Rs. 4	Rs. 5	Rs. 10

You are required to prepare Process Accounts for the above period. 10

Additional information :

- (a) 1000 units @ Rs. 6 per unit were introduced in Process A.
- (b) The production overhead was Rs. 18,000 for the month which is to be apportioned among A, B and C on the basis of Direct wages.



Total number of printed pages – 7

**B. Tech**  
**HSSM 4201**

**Fourth Semester Examination – 2009**

**ENGINEERING ECONOMICS  
AND COSTING**

**Full Marks – 70**

**Time : 3 Hours**

*Answer Question No. 1 which is compulsory  
and any five from the rest.*

*Figures in the right hand margin  
indicate marks.*

1. Answer the following questions : 2×10
- (a) What is present worth comparison ?
  - (b) Draw a cash flow diagram taking imaginary figures.

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- (c) Why depreciation is charged in Diminishing Balance Method ?
- (d) What do you mean by standard costing ?
- (e) Give the acceptance rules of IRR.
- (f) What do you mean by single parameter sensitivity analysis ?
- (g) What is meant by Pay back period comparison ?
- (h) What do you mean by Labour Cost Variance ?
- (i) How do you calculate Break Even Point ?
- (j) How do you calculate Abnormal Process Loss ?

- 2. What are the reasons of Depreciation of fixed assets ? Also explain the needs for charging Depreciation. 5+5
- 3. A firm has two alternative proposals for investing in either Machine X or Machine Y. The following data are available :

	Machine X	Machine Y
Initial purchase price	Rs. 4,00,000	Rs. 8,00,000
Estimated service life	4 years	4 years
Salvage value at the end	Rs. 2,00,000	Rs. 5,50,000
Annual maintenance cost	Rs. 40,000	Nil

By using future worth method of comparison determine the machine which is more suitable for the firm. The prevailing interest rate is 12% p.a.



4. How do you make a Cost Benefit Analysis of a public project ? Explain with the help of one example. 7+3

5. Discuss the basic present worth comparison patterns of Assets having unequal lives and infinite lives. 5+5

6. "Cost Control and Cost Reduction are thoroughly interrelated." Justify the truth or otherwise of this statement. 10

7. The following data are obtained from ABC Co. Ltd. :

Sales	Rs. 1,00,000
Variable cost	Rs. 60,000
Fixed cost	Rs. 30,000

You are required to calculate :

10

- (a) P/V ratio
- (b) Break Even Point
- (c) Margin of Safety
- (d) Break Even Point when there is 20% increase in selling price
- (e) Break Even Point when there is 10% decrease in Fixed cost.

A product is obtained after passing through three processes A, B and C. The following information is collected in January, 2007 :

