## OC 301 INTRODUCTION TO COST ACCOUNTING

Answer all questions
Time: 2 hours
Calculator is permitted

1. i. 'Cost Accounting has become an essential tool of management'. Give your comments on this statement.
(05 Marks)
ii. Define and explain the terms: (a) Cost units and (b) Cost centres.
(05 Marks)
iii. A firm is able to obtain quantity discounts on its orders of material as follows:

| Price per Kg | Kgs |
| ---: | :--- |
| Rs.6.00 | Less than 250 |
| 5.90 | 250 and less than 800 |
| 5.80 | 800 and less than 2,000 |
| 5.70 | 2,000 and less than 4,000 |
| 5.60 | 4,000 and over |

The annual demand for the materials is 4,000 kilo grams. Stock-holding costs are $20 \%$ of material cost per annum. The delivery cost per order is Rs.6.00.

You are required to calculate the best quantity to order.
(06 Marks)
iv. Calculate the maximum level, minimum level and re-order level from the following:

| Re-order quantity | 1,500 units |
| :--- | :--- |
| Re-order period | 4 to 6 weeks |
| Maximum consumption | 400 units per week |
| Normal consumption | 300 units per week |
| Minimum consumption | 250 units per week |

i. What is meant by overhead charges?
ii. Distinguish between allocation and apportionment of costs?
(3 Marks)
iii. Distinguish: fixed, semi-fixed and variable overhead costs, giving examples of each.
(3 Marks)
iv. A company has three production departments $\mathrm{A}, \mathrm{B}$ and C and two service departments X and Y . The following information is available regarding various expenses:

|  | Rs. |
| :--- | ---: |
| Power | 2,400 |
| Rent | 4,200 |
| Canteen | 3,000 |
| Fire precaution service | 1,200 |
| Insurance on assets | 1,000 |
| Human Resource Dept. | 3,000 |
| Time office | 1,000 |
| Maintenance of buildings | 2,400 |
| Depreciation (10\% of capital value) |  |

We also have the following data:

| Details | Production Dept. |  |  | Service dept. |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
|  | A | B | C | X | Y |
| Area (sq. meters) | 400 | 400 | 300 | 200 | 100 |
| K.W. hours | 2,000 | 2,200 | 800 | 750 | 250 |
| No. of workers | 90 | 120 | 30 | 40 | 20 |
| Assets (Rs.) | 50,000 | 60,000 | 40,000 | 30,000 | 20,000 |

The services of $X$ and $Y$ departments are used by the other departments in the following proportion:

|  | A | B | C | X | Y |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $X$ | $25 \%$ | $30 \%$ | $25 \%$ | - | $20 \%$ |
| $Y$ | $40 \%$ | $20 \%$ | $30 \%$ | $10 \%$ | - |

Calculate the total overheads of production departments after reapportioning service department overheads (Repeated distribution method).

03 i What are the merits and demerits of time rate and piece rate systems of wage payment?
ii. Calculate the total earnings and the rate earned per hour of two workmen under the Halsey and Rowan plans.
Standard time 20 hours
Hourly rate of wages Rs. 40
Time taken by $A-16$ hours
$B-10$ hours
(08 Marks)
iii. The Human Resource Department of a concern gives you the following information in respect of labour.
Number of employees on $1^{\text {st }}$ January 1800
Number of employees on $31^{\text {st }}$ January 2200

During the month 20 persons quit and 80 persons are terminated. 300 workers are needed. Of these, 50 workers are recruited in the vacancies and the rest were engaged in the expansion scheme. Calculate the Labour Tutnover Rates.
(06 Marks)
iv. There are two piece workers, $A$ and $B$, who are paid Rs. 50 for each piece work executed which costs Rs. 150 per piece in material.

In a working day of 8 hours, $A$ can complete 4 pieces and $B$ only 3 . If the overhead charges be Rs. 15 per hour show which of the two piece workers is more useful to the firm.
(07 Marks)
(Total 25 Marks)

04 i. Write short notes about,
a. Job costing.
b. Batch costing.
(05 Marks)
ii. What is a job cost sheet? What kind of data generally appear on job cost sheet?
ii. The following directs costs were incurred on Job No. 208 of Nutrition Company.

Materials Rs.6,010

Wages:
Dept. A - 60 hours @ Rs 30 per hour.
B-40 hours @ Rs. 20 per hour.
C - 20 hours @ Rs. 50 per hour.

Overheads for these three departments were estimated as follows:

Variable overheads:
Dept. A Rs. 15,000 for 1,500 labour hours
B Rs.4,000 for 200 labour hours
C Rs. 12,000 for 300 labour hours

Fixed overheads:
Estimated at Rs. 40,000 for 2,000 normal working hours.

You are required to calculate the cost of Job 208 and calculate the price to give profit of $25 \%$ on selling price.
iii. Your are required to calculate the break even point in the following case:

The fixed cost for the year is Rs. 80,000 , variable cost per unit for the single product being made is Rs. 4 .

Estimated sales for the period are valued at Rs. 200,000 . The number of units involved coincides with the expected volume of output. Each unit sells at Rs.20.

Calculate break even point in rupees and units.

