

Eastern University, Sri Lanka
Faculty of Commerce and Management
First Year Second Semester Examination in Bachelor of Business Administration/
Bachelor of Commerce - 2017/2018 (Jan 2020)
(Proper/Repeat)
DAF 1023 Cost and Management Accounting

No. of Questions: 05

No. of Pages: 04

Time: 03 Hours

Calculators are permitted

01. (I) What is meant by cost accounting? Explain the objectives of cost accounting. **(05 Marks)**

(II) Classify the cost using different basis. **(05 Marks)**

(III) The following is a summary of the receipts and issues of material in a factory during January 2019:

January

- 1 Opening balance 500 units @ 25 per unit
- 5 Issued 70 units
- 10 Issued 100 units
- 15 Received from supplier 200 units @ Rs. 30 per unit
- 20 Received from supplier 240 units @ Rs.32per unit
- 24 Issued 300 units
- 28 Received from supplier 100 units @ Rs. 35 per unit

Work out on the basis of First-in-First-out. What would be the value of stock in hand at the end of January.

(05 Marks)

(IV) Ram enterprises manufacture a special product M. The following particulars were collected.

| | | |
|---------------------|-------|----------------|
| Re – order quantity | 250 | units per week |
| Normal usage | 50 | units per week |
| Minimum usage | 25 | units per week |
| Maximum usage | 75 | units per week |
| Re – order period | 4 - 6 | weeks |

You are required to calculate

- a) Re – order level
- b) Minimum stock level
- c) Maximum stock level

(05 Marks)

(Total: 20 Marks)

02. (I) A company makes a single product with sales price of Rs. 12 and a variable cost of Rs. 6. Fixed costs are Rs. 102,000 per annum.

Calculate;

- a) Break even point expressed in units and sales (in rupees).
- b) C/ S ratio.
- c) Number of units that must be sold to earn a profit of Rs. 60,000.

- d) What level of sales will be achieved a profit of Rs. 60,000?
 e) Because of increasing costs, the variable cost is expected to rise by 25% fixed cost to 130,000 p.a. If the selling price can not be increased what is the number of units required to maintain a profit of Rs. 60,000 p.a?

(II) The Break even point of the manufacturing company is Rs. 200,000. Fixed cost is Rs. 50,000 and variable cost is Rs. 36 per unit.

You are required to calculate.

- a) Contribution margin ratio
 b) Selling price per unit
 c) Margin of safety at the sales levels of 12,000 units.

(III) Delta industry uses a special components, which would be purchased from an outside firm. The company estimated that 40000 components are required per year. The following unit cost has to be incurred if a component is manufactured in the company.

| | |
|--------------------|------------------|
| Direct material: | Rs. 12.00 |
| Direct labor: | Rs. 14.50 |
| Variable overhead: | Rs. 5.75 |
| Fixed over head: | Rs. 6.75 |
| Total | <u>Rs. 39.00</u> |

The fixed overhead rate is absorbed on the basis of direct labour hours. If the component could be purchased for Rs. 35.00 each from the outside supplier.

- a) As a cost accountant suggest to the management whether component should be purchased or manufactured.
 b) What other factors should the company consider before finalising whether to purchase or manufacture the component?

(Total: 20)

03. (I) AB Ltd has three production departments A, B and C with two service departments D and E. From the following figures extracted from the records of the company:

| | |
|------------------------------|--------|
| | Rs. |
| Rent and rates | 25000 |
| General lighting | 3000 |
| Indirect wages | 7500 |
| Electric power for machinery | 7500 |
| Depreciation of machinery | 50000 |
| General expenses | 50000 |
| Total | 143000 |

| Item | Total | A | B | C | D |
|------------------------|---------|--------|--------|--------|--------|
| Direct expenses Rs. | 50000 | 15000 | 10000 | 15000 | 7500 |
| Value of machinery Rs. | 1250000 | 300000 | 400000 | 500000 | 250000 |
| Floor space (Sq.mt.) | 10000 | 2000 | 2500 | 3000 | 2000 |
| H.P of machines | 150 | 60 | 30 | 50 | 10 |
| No. of light points | 60 | 10 | 15 | 20 | 10 |

| | | | | | | | |
|-------------------|-------|--|------|------|------|---|---|
| Production worked | hours | | 6226 | 4028 | 4066 | - | - |
|-------------------|-------|--|------|------|------|---|---|

The expense of service departments D and E are to be apportioned as follows:

| Service department | A | B | C | D | E |
|--------------------|-----|-----|-----|-----|-----|
| D | 20% | 30% | 40% | - | 10% |
| E | 40% | 20% | 30% | 10% | - |

- Calculate overhead absorption rate of production departments using simultaneous equation method or repeated distribution method for the secondary distribution.
- Determine the total cost of a product whose direct material cost and direct labour cost are Rs.250 and Rs.150 respectively and which would consume 4 hours, 5 hours and 3 hours in department A, B, and C respectively.

(10 Marks)

- (II) The following figures are taken from the records of company for the year 2018 – 2019.

| Material | X | Y | Z |
|--|----------|----------|----------|
| Material turn over ratio | 27 times | 3 times | 16 times |
| Number of days the average inventory is held | 14 days | 122 days | 23 days |

Categorize the materials with justifications based on its moving speed.

(05 Marks)

- (III) Mr. X works in a factory where the following particulars are available:

- Normal rate per hour is Rs. 60
- Normal piece rate per hour is 20% more of time rate
- Expected output is 20 units per hour
- Mr. X produced 200 units in 8 hours a day

Calculate his wages for the day on;

- Time rate basis
- Piece rate basis

(05 Marks)

(Total: 20 Marks)

- 04 (I) In a manufacturing company monthly wage guaranteed for a worker is Rs. 5000 and standard out put for the month is 1000 units representing 100 % efficiency. The monthly wage paid with out bonus to those workers who show up to 70 % of the efficiency standard. Additional production bonus is Rs.100 for each percentage of actual production exceeding 70% of efficiency standard.

Actual production of workers in this company during the month of April, 2019 is given as follows

| Workers | Outputs (Units) |
|---------|-----------------|
| A | 750 |
| B | 1250 |
| C | 700 |

You are require to calculate monthly gross earnings of three workers of A, B and C.

(05 Marks)

(II) The data regarding inventory of a company are given below. About 50 items required every day for a machine. A fixed cost of Rs. 50 per order is incurred on placing an order. The inventory carrying cost per item amounts to Rs. 0.02 per month. Compute economic order quantity (EOQ). (05)

(III) A company decides to buy pistons from the market. The demand is 60 pistons per day. Ordering cost is Rs.5000 per order and the carrying cost is 15% of the price of the piston per annum. Assume 300 working days in a year.

Price schedule is given below.

| Quantity ordered | Unit Price |
|------------------|------------|
| 0 – 1999 | 65 |
| 2000 – 4999 | 60 |
| 5000 – 10000 | 55 |
| Over 10000 | 50 |

- a) What is the optimum order quantity?
 b) what would be the minimum inventory cost for such an optimal order policy? (10)

(Total: 20)

05 (I). ROACL Ltd produces three products. The following information is given for the current year.

| Product | A | B |
|--|-------|------|
| Selling price per unit in Rs. | 200 | 150 |
| c/s ratio (%) | 20% | 20% |
| Maximum sales potential in units | 15000 | 8000 |
| Raw material required in units (@ Rs. 2.00 per unit) | 4 | 5 |

The fixed expenses are estimated Rs.300000. The company uses a single raw material in all three products. During the current year, the raw material is in short supply with the value of Rs. 200000 for manufacture and meets sales demand. You are required to set product mix which will give a maximum profit keeping in view the short supply of raw materials in view. (08)

(II). From the following information given below, you are required to prepare a cash budget for the three months of August, September, and October in the year 2020 of the Safrex Peripherals (pvt) Ltd. Clearly shows the cash surplus or deficit in each month.

| 2020 Months | Total sales (Rs.) | Purchases (Rs.) | Salaries and wages(Rs.) | Other expenses |
|-------------|-------------------|-----------------|-------------------------|----------------|
| June | 150000 | 60000 | 10000 | 20000 |
| July | 180000 | 70000 | 12000 | 22000 |
| August | 210000 | 70000 | 12000 | 27000 |
| September | 190000 | 80000 | 15000 | 30000 |
| October | 250000 | 90000 | 15000 | 35000 |

- The expected cash balance on 1st August 2020 would be Rs. 90000.
- 10% of sales are on cash basis.
- 50% of credit sales collected in the 1st month after the sale.
- 45 % of credit sales is collected in the 2nd month after the sales and the remaining 5% of credit sales is to be treated as bad debt.

5. Period of credit as follows other than sales
- | | | |
|--------------------|---|-----------|
| Purchases | - | 02 months |
| Salaries and wages | - | ½ month |
| Other expenses | - | 01 month |
6. Plant and machinery will be installed in September 2020 at a cost of Rs. 100000. The monthly installment of Rs. 25000 is payable on September onwards.
7. Annual depreciation charge of Rs. 36000 is included in other expenses
8. Dividend income of 15% on preference share capital of Rs.500000 will be paid in October.
9. Advance of Rs. 9000 to be received for the sale of vehicles in September.
10. Dividend from investment amounting to Rs. 15000 are expected to receive in August.
11. Income tax advance is to be paid in August Rs. 10000.

(08 Marks)

- (III) a) An enterprise is considering replacing its professional legal advisers with its own newly trained personnel. The relevant personnel are currently employed in the secretarial department of the enterprise and will receive no pay increase when taking up their new responsibilities. They will also be required to continue to perform their old duties. The current annual salary bill of these employees amounts to Rs.100,000. Is the Rs.100,000 a relevant cost in the decision on whether to replace the professional advisers?
- b) An enterprise is considering the upgrading of its computer system. The upgrading would result in the annual maintenance contract fee charged by the suppliers rising from Rs.30,000 to Rs.40,000. Is the maintenance fee a relevant cost to the upgrading decision? Briefly explain your reasoning.

(04 Marks)

(Total: 20 Marks)