

Eastern University, Sri Lanka
Faculty of Commerce and Management
First Year Second Semester Examination in Bachelor of Business Administration/
Bachelor of Commerce - 2018/2019 (March 2022)
(Proper/Repeat)
DAF 1023 Cost and Management Accounting

No. of Questions: 05

No. of Pages: 07

Time: 03 Hours

Calculators are permitted

01. (I) Define the terms 'Cost', 'Costing' and 'Cost Accounting'.
(06 Marks)
- (II) Classify the cost using the basis of cost behavior.
(03 Marks)
- (III) The following is a summary of the receipts and issues of material in a factory during January 2022:
- | Date | |
|------|---|
| 02 | Opening balance 100 units @ 100 per unit |
| 03 | Purchased 300 units @ Rs. 105 per unit |
| 05 | Issued 350 units |
| 10 | Purchased 250 units @ Rs. 110 per unit |
| 12 | Received from supplier 100 units @ Rs. 120 per unit |
| 18 | Issued 300 units |
| 20 | Received from supplier 100 units @ Rs. 150 per unit |
- Work out on the basis of last-in-First-out. What would be the value of stock in hand at the end of January.
(05 Marks)
- (IV) Annual Demand : 10000 units
Ordering cost per order : Rs.1000
Carrying cost : Rs. 10 per unit per year
Selling price per unit is Rs.100.
Required:
- Calculate economic order quantity (EOQ).
 - Number of orders to be placed in a year.
 - Time between orders.
 - Suppose there is a price discount of 10% on selling price if minimum order size is 2000 units. What could be your order policy.
(06 Marks)
- (Total: 20 Marks)**

02. (I) Harish industry manufactures quality furniture to customer's orders. It has three production departments L, M and N with two service departments of A and B. From the following figures extracted from the records of the company.

Overheads	Rs.
Rent and rates	60000
Lighting	18000
Indirect wages	83380
Machine Insurance	98400
Electric power for machinery	120000
Depreciation of machinery	82000
Production supervisor's salaries	64125
Total	525905

Item	L	M	N	A	B	Total
Direct Material (Rs.)	165000	170000	230000	9000	12000	586000
Direct Labour (Rs.)	360000	273000	264500	81000	63750	1042250
Allocated overhead specific to department (Rs.)	15000	17000	20000	14000	11000	77000
Labour rates per hour (Rs.)	150	130	115	90	75	560
Direct Labour Hours	2400	2100	2300	900	850	8550
Value of machinery (Rs.)	750000	290000	315000	120000	165000	1640000
Floor space (Sq.mt.)	1200	800	550	200	250	3000
H.P of machines	55	35	40	20	-	150
No. of light points	100	150	200	100	50	600

The expense of service departments A and B are to be apportioned as follows:

Service department	L	M	N	A	B
A	40%	10%	40%	-	10%
B	40%	20%	20%	20%	-

Required:

- Prepare a statement showing the overhead cost for each department. Show the basis of apportionment used.
- Calculate overhead absorption rate of production departments using simultaneous equation method;

- c) Two different model of furniture are to be manufactured for customers. Details are as follows.

Expenses	Model A	Model B
Direct material	Rs. 8000	Rs. 5000
Direct labour	12 hours department L	10 hours dept L
	10 hours department M	05 hours dept M
	06 hours dept N	05 hours dept N

- d) If the firm quotes prices to customer that reflect a required profit of 20% on selling price, calculate the quoted selling price for each job.

(16 Marks)

- (II) The following information relating to a Manufacturing Co., for the year ended 31st March, 2021.

Material Used	Rs. 1200000
Direct Labour	Rs. 700000
Factory Overhead	Rs. 120000
Direct Labour hours	10000
Machine hours	6000

The following information relates to Job No: 2355.

Material Used	Rs. 5000
Direct Labour	Rs. 3500
Direct Labour hours	115
Machine hours	65

You are required to prepare a statement showing the different cost results for work order No. 2355 under the three commonly used method.

(04 Marks)

(Total: 20 Marks)

03. (I) A company makes a single product with sales price of Rs.10 and a variable cost of Rs.6. Fixed costs are Rs. 100000 per annum.

Required:

- Calculate Break-even point expressed in units and sales (in rupees).
- Compute the C/ S ratio.
- Find out the number of units that must be sold to earn a profit of Rs. 20000.
- Because of increasing costs, the unit variable cost is expected to rise by 25% and total fixed cost to 130,000 p.a. If the selling price cannot be increased what will be the number of units required to maintain a profit of Rs. 20000?

(06 Marks)

- (II) XY Limited makes three components: A, B and C. The following costs have been recorded:

Particulars	Component A Unit cost (Rs)	Component B Unit cost (Rs)	Component C Unit Cost (Rs)
Variable cost	30.00	80.00	52.00
Fixed cost	45.00	85.00	38.00
Total cost	75.00	165.00	90.00

Another company has offered to supply the components to the company at the following prices.

Particulars	Component A	Component B	Component C
Price each	Rs 45.00	Rs 72.00	Rs 57.50

Which component(s), if any, should XY Limited consider buying in?

(03 Marks)

- (III) The following particulars are extracted from the records of a company

	Product A Per Unit	Product B Per Unit
Selling price (Rs.)	100	120
variable cost (Rs.)	45	50
Fixed Overhead Expenses (Rs.)	05	10
Labour hours used	03	02
Machine hours used	03	02
Consumption of material (kgs)	02	03

Comment the profitability of each product when raw material in short supply. Assuming raw material is the key factor, availability of which is 10,000 kgs and maximum sale potentials of each product being 3,500 units, find the product mix which yield the maximum profit.

(08 Marks)

- (IV) From the following particulars, calculate Margin of safety:

Fixed cost Rs. 100,000

Variable cost Rs. 150,000

Total Sales Rs. 300,000

(03 Marks)

(Total: 20 Marks)

04 (i) Calculate total monthly remuneration of three workers A, B and C from the following data

(a) Standard production per month per worker 1000 units

(b) Actual production during the month

A 870 units

B 800 units

C 1100 units

(c) Piece work rate is Re. 100 per unit (actual production)

(d) Additional production bonus is Rs.200 for each percentage of actual production exceeding 80 per cent of actual production over standard.

(e) Dearness pay fixed Rs. 1000 per month

(06 Marks)

(ii) The following figures are taken from the records of company for the year 2021.

Material	Opening Stock	Purchases	Closing stock
X	1,400Kg	23,000 Kg	400 Kg
Y	2,000Kg	3,600 Kg	2,400 Kg

Calculate the material turnover ratio of the above two materials and express in number of days the average inventory is held. Also determine which of the two materials is fast moving.

(04 Marks)

(iii) Ramkumar industry has the following information regarding the wage payment during the first week of January 2022.

Employee	A	B
Time allowed – hours (per 100 units)	35	40
Wage per unit in Rs.	02	03
Hourly rate in Rs.	07	08
Actual time taken in hours	25	48
Actual units produced	100	150

Calculate the earnings of each employee using following methods of wage payment.

a) Halsey premium bonus scheme (50% of time saved)

b) Rowan premium bonus scheme

(06 Marks)

(iv) From the following information, calculate labour turnover rate using separation, replacement and flux method.

No. of workers as on 01.01.2021 – 7600

No. of workers as on 31.12.2021 – 8400

During the year, 80 workers left while 320 workers were discharged, 1500 workers were recruited of whom 300 workers were recruited because of exits and the rest were recruited in accordance with expansion plans.

(04 Marks)

(Total: 20 Marks)

- 05 (I). AB Engineering Manufactures two articles X and Y. Its sales department has three divisions: West, South and East. Preliminary sales budgets for the year ending 31 December 2022, based on the assessments of the divisional executives:

Product X : West 40,000 units: South 1,00,000 units and East 20,000 units

Product Y : West 60,000 units: South 8,00,000 units and East Nil

Sales Price X Rs. 2 and Y Rs. 3 in all areas.

Arrangements are made for the extensive advertising of product X and Y and it is estimated that West division sales will increase by 20,000 units. Arrangements are also made to advertise and distribute product Y in the Eastern area in the second half of 2022 when sales are expected to be 100000 units. Since the estimated sales of the South division represented an unsatisfactory target, it is agreed to increase both the estimates by 10 %.

Prepare a sales budget for the year to 31" December 2022.

(05 Marks)

- (II). Prepare a Production Budget for each month and Production Cost budget for the six months period

ending 31st Dec. 2022 from the following data of product "X":

- (a) The units to be sold for different months are as follows:

July, 2022	1100
August	1100
September	1700
October	1900
November	2500
December	2300
January 2023	2000

- (b) There will be no work in progress at the end of any month.
(c) Finished units equal to half the sales for the next month will be in stock at the end of each month (including June 2021).
(d) Budgeted production and production cost for the year ending 31" December 2022 are as follows:

Production (Units)	22,000
Direct Material Per unit	Rs.10.00

Direct wages Per unit Rs. 4.00

Total factory overhead apportioned to product Rs.88,000

(10 Marks)

- (III) A firm makes two products X and Y and has a total production capacity of 09 tonnes per day. Both X and Y require the same production capacity. The firm has a permanent contract to supply at least 02 tonnes of X and at least 03 tonnes of Y per day to another company. Each tonne of X requires 20 machine hours of production time and each tonne of Y requires 50 machine hours of production time. The daily maximum possible number of machine hours is 360. All of the firm's output can be sold. The profit made is Rs 80 per tonne of X and Rs 120 per tonne of Y. Formulate this problem as an linear programming model and solve it by using graphical method to determine the production schedule that yields the maximum profit.

(05 Marks)

(Total: 20 Marks)