

Jamia Hamdard
School of Management and Business Studies
Department of Management
Even Semester Examination - August 2023
BBA – II Semester
Cost Accounting; BBA-F-08

Roll No...

Duration: 3 Hour

Max.Marks - 60

Section A - Short Answer

(6X4=24)

Note: Attempt any Six Questions. All questions carry equal marks

Q1: A company is paying its workers under Emerson's efficiency plan. The standard output fixed for a week of 48 hours is 500 units. Hourly wage rate is Rs 12. The output of workers during the week are: worker A 300 units, worker B 450 units, worker C 500 units and worker D 550 units. The daily wage rate is paid without bonus to workers who show upto $66\frac{2}{3}$ percent of the standard. Beyond this there is a bonus payable in a grade scale in a fixed ratio to the increased output as follows:

Efficiency	Bonus
90%	10%
100%	20%

Further increase of bonus by 1% for every 1% further rise in efficiency. Find out the weekly earnings of workers A, B, C, and D.

Q2: A product passes through three processes before completion 5000 units were introduced into the first process X at a cost of Rs 5 per unit. Direct wages and other expenses incurred in the process are Rs 7500 and Rs 5100 respectively. The normal process is 8% of input which is sold at Rs 2 per unit in the market. Actual output amounted to 4750 units.

Prepare process X account and abnormal gain account.

Q3: You are requested to calculate earnings of a worker for a week under (i) straight piece rate, (ii) Differential Piece rate, (iii) Halsey premium scheme, (iv) Halsey weir plan and (v) Rowan premium plan.

Weekly working hour	48
Hourly wage rate	Rs 7.50
Piece rate per unit	Rs 3
Normal time taken per piece	20 minutes
Normal output per week	120 pieces
Actual output for the week	150 pieces

Differential piece rate – 80% of piece rate when output is below normal & 120% when output is above normal.

Q4: Calculate the present and future P/V ratio

Sales	10,00,000
Variable Cost	6,00,000
Fixed Cost	2,00,000

There is a proposal to reduce the selling price by 10%.

Q5: X Ltd is to quote for job No 123. The following are the direct costs estimated for the job.

Direct Materials	15 kg at Rs 5/ kg
Direct Labour	Department A - 8 hours at Rs 6 per hour Department B - 12 hours at 7.5 per hour

Additional Information

Department A variable overhead	48000
Hours Budgeted	16000
Department B Variable Overhead	57000
Hours Budgeted	38000
Fixed overheads Budgeted	135000

Q6: The following figures have been extracted from books of Sri Ram Industries Ltd for the half year ended 30th Sept, 2022

Month (2022)	Volume (units)	Repairs & Maintenance Cost (Semi Variable)
April	1000	2500
May	800	2300
June	1200	2700
July	1400	2900
August	1500	3000
September	1600	3100

Calculate the variable cost per unit and fixed cost by equation method.

Q7: Why batch costing needs mathematical formula to calculate economic batch quantity? Illustrate & compare.

Q8: Calculate machine hour rate with standing and operating charges.

Cost of machine	175000
cost of installation	10000
Scrap value after 15 years of useful life	5000
Working hour per month	200 hours
Lighting for the shop	800 per month
Rent for the shop	2000 per month
Insurance premium for the machine	7200 per annum
Repair charges	50% of depreciation
Other standing charges allocated to the machine	1000 per month

Power is used by the machine at 5 units per hour at Rs 3.50 per unit. The machine occupies one fourth of the floor space of the shop.

Q9: A transport company is running 4 buses between two towns which are 50 KM away from each other. Seating capacity of each bus is 40 passengers. The following particulars are given from their books for April 2021.

Wages of operators & drivers	Rs. 2400
Salaries	Rs. 1000
Diesel, oil	Rs. 4000
Repairs & expenses	Rs. 800
Insurance & tax	Rs. 1600
Depreciation	Rs. 2600
Interest	Rs. 2000

Actual passengers carried were 75% of the seating capacity. All the buses ran on all the days of the month. Each bus made one round trip per day.

Find out the cost per passenger km.

Section B-Long Answer

(12X3=36)

Note: Attempt any Three Questions. All questions carry equal marks

Q1: The following receipts and issues were recorded. You are requested to prepare the stores ledger account, showing how the values of issues would be calculated under FIFO and LIFO methods of inventory costing and profit or loss

Sales	18,90,000
Administration Overhead	50,000
Sample Distribution	50,000
Opening Stock	200000 units at Rs 1.50 per unit

Purchases during the month

1 st March	500000 units at Rs 1.35 per unit
15 th March	250000 units at Rs 1.55 per unit
31 st March	200000 units at Rs 0.75 per unit
31 st March	Closing stock 300000 units

Q2: A firm expects to have ₹ 25,000 in bank on 1st May 2021 and requires you to prepare an estimate of cash position during the three months - May to July 2021. The following information is supplied to you:

Months	Sales	Purchases	Wages	Factory Expenses	Office Expenses	Selling Expenses
March	₹ 50,000	₹ 30,000	₹ 6,000	₹ 5,000	₹ 4,000	₹ 3,000
April	₹ 56,000	₹ 32,000	₹ 6,500	₹ 5,500	₹ 4,000	₹ 3,000
May	₹ 60,000	₹ 35,000	₹ 7,000	₹ 6,000	₹ 4,000	₹ 3,500
June	₹ 80,000	₹ 40,000	₹ 9,000	₹ 7,500	₹ 4,000	₹ 4,500

July	₹ 90,000	₹ 4,00,000	₹ 9,500	₹ 8,000	₹ 4,000	₹ 4,500
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Other Information:

- 20% of sales is for cash and remaining sales is collected in the month following that of sale.
- Supplier supply goods at two-month credit.
- All expenses are paid in the month following the one in which they are incurred.
- The company pays dividend to shareholders and bonus to workers of ₹ 10,000 and ₹ 15,0000 respectively in the month of May.
- Plant has been ordered and is expected to be received in June. It costs ₹ 80,000 and is payable on receipt.
- Income tax ₹ 25,000 is payable in July.

Q3: There are three production departments and two service departments. The expenses incurred by them during the 3 months from 1.1.2021 to 31.3.2021 are as under;

Service Department	
X	23,400
Y	30,000
Production Department	
P	80,000
Q	70,000
R	50,000

This expenses of service departments are apportioned to other departments on the following basis:

	P	Q	R	X	Y
Service Dept X	20%	40%	30%	-	10%
Service Dept Y	40%	20%	20%	20%	-

Show clearly as to how service department expenses are apportioned to production department. What are the differences in total cost among simultaneous equation method and trail & error method? Calculate using both the methods.

Q4: Calculate (i) Prime Cost, (ii) Works Cost, (iii) Cost of Production, (iv) Cost of Sales, (v) Profit

Particulars	1st April 2022	30th April 2022
Stock of materials	22,750	26,300
Stock of work in progress	18,200	15,700
Stock of finished goods	37,600	34,500
Purchase of RM	6,20,000	
Carriage Inward	21,400	
Factory manager Salary	25,000	
Depreciation of P&M	27,100	
Office Rent, Rates & Insurance	14,600	
Salesman Travelling Expenses	21,900	

Carriage Outward	13,800
Debenture Interest	16,500
Directors Fees	24,000
General Manager Salary	25,000
Transfer to General Reserve	20,000
Wages	3,70,000
Power Expenses	1,15,000
Office Salaries	28,000
General Expenses	17,300
Dividend Paid	35,000
Warehouses Expenses	29,000
Income Tax	41,000
Goodwill Written Off	10,000
Bank Charges	6,000
Printing and Stationery	12,500
Sales	16,00,000

Q5: A company has annual fixed cost of Rs 1,40,00,000. In the year 2020-21, sales amounted to 6,00,00,000 as compared with 4,50,00,000 in the preceding year 2019-20. Profit in 2020-21 is 42,00,000 more than that in 2019-20, on the basis of the above information, answer the following:

- At what level of sales the company would break-even?
- Determine profit/loss on a forecasted sales volume of Rs 8,00,00,000.
- If there is a reduction selling price by 10% in the financial year 2021-22 and the company wants to earn the same amount of profit as in 2019-20, what would be the required sales volume?

Q6: Amber Ltd produces and sells its products through two consecutive processes 'A' and 'B'. The following are the expenses and other relevant data for the month of July 2022.

Particulars	Process A	Process B
Raw materials introduced	1800 tons	320 tons
Cost Per Unit	₹ 15	₹ 20
Indirect Materials	₹ 4,500	₹ 2,000
Direct wages	₹ 16,000	₹ 9,000
General Expenses	₹ 1,820	₹ 2,616
Normal loss on input	10%	5%
Normal Scrap Value per ton	₹ 4.00	₹ 5.50
Actual Output	1600 tons	1850 tons

Prepare process accounts. Also prepare normal loss, abnormal loss and abnormal gain account