Delhi School of Business
PGDM Program
END-TERM EXAMINATION, JANUARY 2024
TERM – II (Batch: 2023-25)

Course Name	Cost and Management Accounting	Course Code	CMA
Duration	Two and Half hours	Max. Marks	60

Instructions:

1. *Mode of Exam is Closed Book.*

2. *Use of mobile phones is strictly prohibited.*

4. *Only the use of calculators (preferably manual) is allowed.*

5. *Any attempt of misconduct will amount to the cancellation of the paper.*

Answer any five from the following: **5 X 12 = 60**

1. (a) Prestige Ltd. manufactures pressure cookers with a selling price of ₹300 per unit. Currently, the company is operating at a capacity of 60 percent with a sale of ₹18 lakhs. The company proposes to reduce the selling price by 20 per cent but desires to maintain the same profit position by increasing the output. Assuming all increased output could be made and sold, determine the level at which the company should operate to achieve the desired objective. The following data is further available:

i.   Variable cost per unit, ₹60.

ii.   Semi-Variable costs (including a variable element of ₹10 per unit), ₹1,80,000.

iii.   Fixed costs, ₹3,00,000 will remain constant up to 80 percent level. Beyond this an additional amount of ₹80,000 will be incurred.

(b) XYZ Limited has 4 products. The following information relates to a production period:

	COST
Direct Material Cost	27000
Direct Labour Cost	50000
Machine Maintenance Cost	15000
Testing Cost	9000
Store receiving	6000
Set up Cost	9200

Company is absorbing the overhead costs to the individual products on labour hours. Now the company is thinking to convert to ABC system:

	PRODUCTS				
	W	**X**	**Y**	**Z**	
Direct Materials	400	600	300	500	1800
Testing Hours	150	300	200	250	900
Labour Hours	1500	5000	2000	4000	12500
No. of production runs	20	25	40	30	115
No. of machine hours	700	900	400	500	2500
Requisition raised	20	25	15	20	80

Compare the results under Traditional and ABC systems.   6+6 (CO3)

2. (a) From the following details compute the secondary distribution under two approaches based on a departmental distribution summary of expenses:

Production Departments:

Manufacturing	₹48,000
Assembly	₹42,000
Finishing	₹36,000

Service Department:

Power	₹6,000
Administration	₹10,000

The expenses of the service departments are charged out on the following basis:

	Production departments			Service Department	
	Manufacturing	Assembly	Finishing	Power	Administration
Power	40%	25%	15%	_	20%
Administration	35%	30%	20%	15%	_

(b) From the following data compute the statement showing collection from Debtors for the months of June, July and August:

	April	May	June	July	August
Sales (₹)	100000	1,20,000	90,000	1,05,000	1,25,000

20% of the sales are made in cash. Debtors are allowed 2 month's credit. Debtors will receive 5% discount on sale if they pay off their dues within one month from the date of sale. 4/5th of the debtors normally clear their dues to avail the cash discount, remaining debtors pay on due date.   7+5 (CO3)

3. (a) A company with a capacity of 2,00,000 man-hours a year was set up to carry out assembly work on three dissimilar products. The results for the first year's operations were summarized as follows:

	A	B	C
Units sold.	25000	30000	40000
Man hours used	25000	45000	80000
Sales Value (₹)	50000	30000	20000
Variable Cost ₹	45000	24000	5000
CONTRIBUTION	5000	6000	15000
Fixed Costs	15000	9000	6000
Profit/Loss	(10000)	(3000)	9000

The fixed costs as shown above ₹30000 in total, were for the workshop as a whole and had been arbitrarily allocated to products based on turnover, that being the only practical basis. In the process of budgeting for the second year the sales manager said that the utmost he could sell of each product were as follows, prices to remain unchanged:

A	B	C
1,00,000	40,000	30,000

Assuming that fixed costs will remain unchanged and variable costs will remain at the same rate per unit, what is the sales mix that will produce the maximum profits?

(b) To produce 90 kg of product Twacha the following materials are needed:

RM1	Standard	Actual
Material Quantity	60	65
Price per Unit	5	4
RM2	Standard	Actual
Material Quantity kg	40	50
Price per Unit	8	9

The actual production was 92 kgs. Compute the Material Cost; Price and Usage Variances.

6+6 (CO1,3)

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4. (a) The following details are available for the half-year period ended 30th June 2009:

	₹	₹
Fixed Expenses:		
Wages and Salaries	8.4	
Rent, rates and taxes	5.6	
Depreciation	7.0	
Sundry administrative expenses	8.9	29.9
Semi-Variable Expenses (at 50% capacity):		
Maintenance and repairs	2.5	
Indirect Labour	9.9	
Sales department salaries etc.	2.9	
Sundry administrative expenses	2.6	17.9
Variable Expenses (at 50% capacity):		
Material	24.0	
Labour	25.6	
Other expenses	3.8	53.8

It is assumed that the fixed expenses will remain constant for all levels of production, and semi-variable expenses remain constant between 45% and 65% of capacity, increasing by 10% between 65.1% and 80% of capacity and by 20% between 80.1% and 100% of capacity. Sales at the various levels are:

	₹ in lakhs
60% capacity	100
75% capacity	120
90% capacity	150
100% capacity	175

Prepare a flexible budget for the half-year and forecast the profits for 60%, 75%, 90% and 100% capacity.

b) A manufacturing company is reviewing its product range as the basic material used in all its products has suddenly increased in price. the managing director wishes to make the best use of the company's capacity and resources and has come to you for advice.

On inspection, the budget figures for the next period are as follows:

Product	P	Q	R	S
Maximum production (units)	5000	5000	5000	5000
Selling price per unit (₹)	25	33	43	56
Variable Cost:				
Material	9	12	17	20
Labour	8	10	12	18

Overhead	4	5	6	9

The total amount of material available to the company is limited by the supplier's production capacity to ₹200000. The budgeted fixed costs total ₹80,000. You are required to compute the product mix that would produce the maximum profit.

6+6 (CO1,3)

5. (a) From the following information prepared the Labour Cost Budget:

A company has three products X, Y, and Z. The relevant data is as follows:

	X	Y	Z
Skilled Labour hours/unit	6	4	7
Semi-skilled labour hours/unit	4	6	8

The wage rate of skilled and semi-skilled labour respectively are ₹100 and ₹70 and each worker works for 8 hours a day. The normal working days in a month is of 25 days. The production ratio is 9:5:6 and the total production is 50000 units. You are required to prepare a direct labour budget showing the number of workers and wages.

(b) BQT Ltd. furnishes the following information related to 30th June 2008:

Fixed Expenses ₹50,000

Sales ₹2,00,000

Profit ₹50,000

During the second half of the same year the company has projected a loss of ₹10000.

Compute:

i. The P/V ratio, break-even and margin of safety for 6 months ended 30th June 2008.

ii. Expected Sales volume for the second half of the year assuming that selling price and fixed expenses remain unchanged in the second half of the year.

iii. The break-even point and margin of safety for the whole year 2008.

6+6 (CO2,3)

6. (a) From the following particulars of Winson Corporation located in Maldives, prepare a cash budget for the three months commencing from 1st June 2008, when the bank balance was ₹10,000:

Months	Sales	Purchases	Wages	Selling expenses	Overheads
April	1,00,000	70,000	8,500	3,500	4,000
May	1,20,000	80,000	9,500	3,500	4,500

June	1,40,000	90,000	9,500	3,500	6,000
July	1,60,000	1,00,000	12,000	3,500	6,500
August	1,80,000	1,10,000	14,000	3,500	7,000

A commission of 5% on sales due in 2 months after sales is payable in addition to the above selling expenses. Credit terms of sale are—payment by the end of the month following the month of supply. On an average one half of sales is paid on the due date, while the other half is paid during the next month. Creditors are paid during the month following the month of supply. Plant purchased in June ₹78,000 of which ₹48,000 is payable on delivery and the balance in two equal monthly instalments. A dividend of ₹30,000 will be paid in September. Wages are paid 3/4ths on due date while 1/4th during the next month. Lag in payment of selling expenses and overheads is one month.

(b) The standard cost of a chemical mixture BX is as follows:
40% of material B @ ₹400 per kg
60% of material X @ ₹600 per kg

A standard loss of 10% is normally anticipated in production. The following particulars are available for the month of September 2008:

180 kgs of material B have been used @ ₹360 per kg.
220 kgs of material X have been used @ ₹680 per kg.

The actual production of chemical BX was 369 kg. Compute the necessary Variances.

6+6 (CO1,2)