

QUESTION NO.1 is compulsory and attempt any four out of remaining five questions.

QUESTION NO.1

(5 MARKS X 4 = 20 MARKS)

- A. Arnav Confectioners (AC) owns a bakery which is used to make bakery items like pastries, cakes and muffins. AC use to bake atleast 50 units of any item at a time. A customer has given an order for 600 cakes. To process a batch of 50 cakes, the following cost would be incurred:

Direct materials - Rs. 5,000

Direct wages - Rs. 500

Oven set-up cost Rs. 750

AC absorbs production overheads at a rate of 20% of direct wages cost. 10% is added to the total production cost of each batch to allow for selling, distribution and administration overheads.

AC requires a profit margin of 25% of sales value.

Required:

- i. DETERMINE the price to be charged for 600 cakes.
 - ii. CALCULATE cost and selling price per cake.
 - iii. DETERMINE what would be selling price per unit If the order is for 605 cakes.
- B. In an Oil Mill four products emerge from a refining process. The total cost of input during the quarter ending March 20X8 is Rs. 1,48,000. The output, sales and additional processing costs are as under :

Products	Output in Litres	Additional processing cost after split off (Rs.)	Sales Value (Rs.)
ACH	8,000	43,000	1,72,500
BCH	4,000	9,000	15,000
CSH	2,000	-	6,000
DSH	4,000	1,500	45,000

In case these products were disposed – off at the split off point that is before further processing, the selling price per litre would have been :

ACH (Rs.)	BCH (Rs.)	CSH (Rs.)	DSH (Rs.)
15.00	6.00	3.00	7.50

PRODUCE a statement of profitability based on :

- (i) If the products are sold after further processing is carried out in the mill.
- (ii) If they are sold at the split off point.

C. From the following data of Arnav Metallic Ltd., CALCULATE Cost of production :

		Amt.(Rs.)
i.	Repair & maintenance paid for plant & machinery	9,80,500
ii.	Insurance premium paid for inventories	26,000
iii.	Insurance premium paid for plant & machinery	96,000
iv.	Raw materials purchased	64,00,000
v.	Opening stock of raw material	2,88,000
vi.	Closing stock of raw materials	4,46,000
vii.	Wages paid	23,20,000
viii.	Value of opening Work – in – process	4,06,000
ix.	Value of closing Work – in – process	6,02,100
x.	Quality control cost for the products in manufacturing process	86,000
xi.	Research & development cost for improvement in production process	92,600
xii.	Administrative cost for :	
	Factory & Production	9,00,000
	Others	11,60,000
xiii.	Amount realised by selling scrap generated during the manufacturing process	9,200
xiv.	Packing cost necessary to preserve the goods for further processing	10,200
xv.	Salary paid to Director (Technical)	8,90,000

- D. The Complete Gardener is deciding on the economic order quantity for two brands of lawn fertilizer: Super Grow and Nature's Own. The following information is collected:

	Fertilizer	
	Super Grow	Nature's Own
Annual Demand	2,000 Bags	1,280 Bags
Relevant Ordering cost per purchase order	Rs. 1,200	Rs. 1,400
Annual relevant carrying cost per bag	Rs. 480	Rs. 560

Required:

- (i) Compute EOQ for Super Grow and Nature's Own.
- (ii) For the EOQ, what is the sum of the total annual relevant ordering costs and total annual relevant carrying costs for Super Grow and Nature's Own?
- (iii) For the EOQ, compute the number of deliveries per year for Super Grow and Nature's Own.

QUESTION NO.2

(10 MARKS X 2=20 MARKS)

- A. The Trading and Profit and Loss Account of a company for the year ended 31 -03-20X8 is as under:

Trading and Profit and Loss Account

Particulars	Rs.	Particulars	Rs.
To Materials	26,80,000	By Sales (50,000 units)	62,00,000
To Wages	17,80,000	By Closing Stock (2,000 units)	1,50,000
To Factory Expenses	9,50,000	By Dividend received	20,000
To Administrative Expenses	4,80,200		
To Selling Expenses	2,50,000		
To Preliminary Expenses written off	50,000		
To Net Profit	1,79,800		
	63,70,000		63,70,000

In the Cost Accounts:

- (i) Factory expenses have been allocated to production at 20% of Prime Cost.
- (ii) Administrative expenses (production related) absorbed at 10% of factory cost.
- (iii) Selling expenses charged at Rs. 10 per unit sold.

PREPARE the Costing Profit and Loss Account of the company and reconcile the Profit/Loss with the profit as shown in the Financial Accounts.

- B. In a factory, a machine is considered to work for 208 hours in a month. It includes maintenance time of 8 hours and set up time of 20 hours.

The expense data relating to the machine are as under:

Cost of the machine is Rs. 5,00,000. Life 10 years. Estimated scrap value at the end of life is Rs. 20,000.

	(Rs.)
– Repairs and maintenance per annum	60,480
– Consumable stores per annum	47,520
– Rent of building per annum (The machine under reference occupies 1/6 of the area)	72,000
– Supervisor's salary per month (Common to three machines)	6,000
– Wages of operator per month per machine	2,500
– General lighting charges per month allocated to the machine	1,000
– Power 25 units per hour at Rs. 2 per unit	

Power is required for productive purposes only. Set up time, though productive, does not require power.

The Supervisor and Operator are permanent. Repairs and maintenance and consumable stores vary with the running of the machine.

Required

COMPUTE a two-tier machine hour rate for (a) set up time, and (b) running time.

QUESTION NO.3

(10 MARKS X 2=20 MARKS)

A.

Fixed Cost	Rs. 1,20,000
Variable costs	Rs. 3 per unit
Selling price	Rs. 7 per unit
Output	Rs. 50,000 units

CALCULATE the profit for each of the following situation with the above data:

- (i) with the data above

- (ii) with a 10% increase in output & sales.
- (iii) with a 10% increase in fixed costs.
- (iv) with a 10% increase in variable costs.
- (v) with a 10% increase in selling price.

taking all the above situations.

B. Gaurav Ltd. is drawing a production plan for its two products Minimax (MM) and Heavyhigh (HH) for the year 20X8-X9. The company's policy is to hold closing stock of finished goods at 25% of the anticipated volume of sales of the succeeding month. The following are the estimated data for two products:

	Minimax (MM)	Heavyhigh (HH)
Budgeted Production units	1,80,000	1,20,000
	(Rs.)	(Rs.)
Direct material cost per unit	220	280
Direct labour cost per unit	130	120
Manufacturing overhead	4,00,000	5,00,000

The estimated units to be sold in the first four months of the year 20X8-X9 are as under

	April	May	June	July
Minimax	8,000	10,000	12,000	16,000
Heavyhigh	6,000	8,000	9,000	14,000

PREPARE production budget for the first quarter in month-wise.

QUESTION NO.4

(10 MARKS X 2=20 MARKS)

A. Z. Ltd. uses standard costing system in manufacturing of its single product 'M'. The standard cost per unit of M is as follows:

	Rs.
Direct Material – 2 metres @ Rs. 6 per metre	12.00
Direct labour- 1 hour @ Rs. 4.40 per hour	4.40
Variable overhead- 1 hour @ Rs. 3 per hour	3.00

During July, 2016, 6,000 units of M were produced and the related data are as under:

Direct material acquired- 19,000 metres @ Rs.5.70 per metre.

Material consumed – 12,670 metres.

Direct labour – ? hours @ Rs. ? per hour Rs. 27,950

Variable overheads incurred Rs. 20,475

The variable overhead efficiency variance is Rs. 1,500 adverse. Variable overheads are based on direct labour hours. There was no stock of the material in the beginning

You are required to DETERMINE the missing figures and work out all the relevant variances.

- B. From the following information for the month of January, 20X9, PREPARE Process-III cost accounts.

Opening WIP in Process-III	1,600 units at Rs. 24,000
Transfer from Process-II	55,400 units at Rs. 6,23,250
Transferred to warehouse	52,200 units
Closing WIP of Process-III	4,200 units
Units Scrapped	600 units
Direct material added in Process-III	Rs. 2,12,400
Direct wages	Rs. 96,420
Production overheads	Rs. 56,400

Degree of completion:

	Opening Stock	Closing Stock	Scrap
Material	80%	70%	100%
Labour	60%	50%	70%
Overheads	60%	50%	70%

The normal loss in the process was 5% of the production and scrap was sold @ Rs. 5 per unit.

(Students may treat material transferred from Process – II as Material – A and fresh material used in Process – III as Material B)

QUESTION NO.5

(10 MARKS X 2=20 MARKS)

- A. Family Store wants information about the profitability of individual product lines: Soft drinks, Fresh produce and Packaged food. Family store provides the following data for the year 20X7-X8 for each product line:

	Soft drinks	Fresh produce	Packaged food
Revenues	Rs. 39,67,500	Rs. 1,05,03,000	Rs. 60,49,500
Cost of goods sold	Rs. 30,00,000	Rs. 75,00,000	Rs. 45,00,000
Cost of bottles returned	Rs. 60,000	Rs. 0	Rs. 0
Number of purchase orders placed	360	840	360
Number of deliveries received	300	2,190	660
Hours of shelf-stocking time	540	5,400	2,700
Items sold	1,26,000	11,04,000	3,06,000

Family store also provides the following information for the year 20X7-X8:

Activity	Description of activity	Total Cost	Cost-allocation base
Bottles returns	Returning of empty bottles	Rs. 60,000	Direct tracing to soft drink line
Ordering	Placing of orders for purchases	Rs. 7,80,000	1,560 purchase orders
Delivery	Physical delivery and receipt of goods	Rs. 12,60,000	3,150 deliveries
Shelf stocking	Stocking of goods on store shelves and on-going restocking	Rs. 8,64,000	8,640 hours of shelf-stocking time
Customer Support	Assistance provided to customers including check-out	Rs. 15,36,000	15,36,000 items sold

Required:

- (i) Family store currently allocates support cost (all cost other than cost of goods sold) to product lines on the basis of cost of goods sold of each product line. CALCULATE the operating income and operating income as a % of revenues for each product line.
- (ii) If Family Store allocates support costs (all costs other than cost of goods sold) to product lines using an activity based costing system, CALCULATE the operating income and operating income as a % of revenues for each product line.

B. Sanziet Lifecare Ltd. operates in life insurance business. Last year it has launched a new term insurance policy for practicing professionals 'Professionals Protection Plus'. The company has incurred the following expenditures during the last year for the policy:

Policy development cost	Rs.11,25,000
Cost of marketing of the policy	Rs.45,20,000
Sales support expenses	Rs.11,45,000
Policy issuance cost	Rs.10,05,900
Policy servicing cost	Rs.35,20,700
Claims management cost	Rs.1,25,600
IT cost	Rs.74,32,000
Postage and logistics	Rs.10,25,000
Facilities cost	Rs.15,24,000
Employees cost	Rs. 5,60,000
Office administration cost	Rs.16,20,400

Number of policy sold- 528

Total insured value of policies- Rs.1,320 crore

Required:

- a. CALCULATE total cost for Professionals Protection Plus' policy segregating the costs into four main activities namely (a) Marketing and Sales support, (b) Operations, (c) IT and (d) Support functions.
- b. CALCULATE cost per policy.
- c. CALCULATE cost per rupee of insured value.

QUESTION NO.6

(5 MARKS X 4 = 20 MARKS)

- A. DISCUSS the prerequisite of installing cost accounting system.
- B. EXPLAIN the difference between fixed budget and flexible budget.
- C. DESCRIBE net realizable value method of apportioning joint costs to by-products.
- D. Why is 'Zero Base Budgeting' (ZBB) considered superior to 'Traditional Budgeting'? Explain.