Time Allowed: 3 Hours **Full Marks: 100**

The figures in the margin on the right side indicate full marks.

SECTION – A (Compulsory)

1. Choose the correct option: **[15 x 2 = 30]**

(i) _____________ is the study of managerial aspects of financial accounting

a. Cost accounting
b. Financial accounting
c. Management accounting
d. Business accounting

(ii) X Company uses activity-based costing for Product B and Product D. The total estimated overhead cost for the parts administration activity pool was ₹5,50,000 and the expected activity was 2000 part types. If Product D requires 1200 part types, the amount of overhead allocated to product D for parts administration would be:

a. ₹2,75,000
b. ₹3,00,000
c. ₹3,30,000
d. ₹3,45,000

(iii) Cost attribution to cost units on the basis of benefit received from indirect activities, such as ordering, setting-up, assuring quality is known as:

a. Allocation
b. Activity-based costing
c. Always better control
d. Absorption

(iv) What is Margin of Safety if Sales is 20,000 units and B.E.P is 15,000 units?

a. 15000 units
b. 5000 units
c. 10000 units
d. 20000 units

(v) Fixed cost per unit decrease when

a. Production volume increases
b. Production volume decreases
c. Variable costs per unit decreases
d. Prime costs per unit decreases

(vi) The break-even point of a manufacturing company is ₹1,60,000. Fixed cost is ₹48,000. Variable cost is ₹12 per unit. The PV ratio will be:
a. 20%
b. 40%
c. 30%
d. 25%

(vii) A radio manufacturer finds that it costs ₹6.25 per unit to make component M-140 and the same is available in the market at ₹5.75 each. Continuous supply is also fully assured. The break-down cost per unit as follows: Materials ₹2.75, Labour ₹1.75 other variable expenses ₹0.50, Depreciation and other fixed cost ₹1.25. What would be your decision, if the supplier offered the component at ₹4.85 per unit?
a. Make
b. Buy
c. Sell
d. None of the above

(viii) Which one of the following is not considered as a method of Transfer Pricing?
a. A Negotiated Transfer Pricing
b. B Market Price Based Transfer Pricing
c. C Fixed Cost Based Transfer Pricing
d. D Opportunity Cost Based Transfer Pricing

(ix) Standard quantity of material for one unit of output is 10 kgs @ ₹8 per kg. Actual output during a given period is 800 units. The standards quantity of raw material
a. 8,000 kgs
b. 6,400 Kgs
c. 64,000 Kgs
d. None of these

(x) Standard price of material per kg is ₹20, standard usage per unit of production is 5 kg. Actual usage of production 100 units is 520 kgs, all of which was purchase at the rate of ₹ 22 per kg. Material cost variance is
a. ₹ 2,440 (A)
b. ₹ 1,440 (A)
c. ₹ 1,440 (F)
d. ₹ 2,300 (F)

(xi) Given Production at 60% activity, 600 units, Material ₹50 per unit, Labour ₹ 20 per unit, Direct expenses ₹5 per unit, Factory overheads ₹20,000 (60% variable) and Administration expenses ₹15,000 (60% fixed). What will be the total cost per unit for production at 80% capacity?

a. ₹ 1,01,000
b. ₹ 126.25
c. ₹ 122
d. ₹ 1,22,000

(xii) __________________ is prepared for single level of activity and single set of business conditions.
a. Fixed budget
b. Flexible budget
c. Both a and b
d. None of the above

(xiii) If the time taken to produce the first unit of a product is 4000 hrs, what will be the total time taken to produce the 5^{th} to 8^{th} unit of the product, when a 90% learning curve applies?
a. 10,500 hours
b. 12,968 hours
c. 9,560 hours
d. 10,368 hours

(xiv) In responsibility cost accounting the costs in focus are ______________________.
a. Controllable costs
b. Uncontrollable costs
c. Both A and B
d. None of the above

(xv) ABC stocks a weekly lifestyle magazine. The owner buys the magazines for ₹0.30 each and sells them at the retail price of ₹0.50 each.
At the end of the week unsold magazines are obsolete and have no value. The estimated probability distribution for weekly demand is shown below.

Weekly demand in units	Probability
20	0.20
30	0.55
40	0.25
	1.00

What is the expected value of demand?
a. 30
b. 20
c. 25
d. None of the above

SECTION-B

(Answer any 5 questions out of 7 questions given. Each question carries 14 marks.)

[5 x 14 = 70]

2. (a) Describe the differences between Management Accounting and Financial Accounting. **[7]**

(b) Your Cost Controller is not happy about the existing system of charging overheads to its Products, A and B. You have been newly appointed as a Management Accountant of the company and you are asked to implement the ABC Costing for allocation of overheads to the Products. You have identified the following activities, budgeted costs, and activity consumption cost drivers as follows:

Activity	Budgeted Cost	Activity Consumption Cost Driver
Engineering	1,25,000	Engineering hours
Setups	3,00,000	Number of setups
Machine operation	15,00,000	Machine hours
Packing	75,000	Number of packing orders
Total	₹ 20,00,000	

You have also gathered the following operating data pertaining to each of its products:

	Product A	Product B	Total
Engineering hour	5,000	7,500	12,500
Number of setups	200	100	300
Machine hours	50,000	1,00,000	1,50,000
Number of packing orders	5,000	10,000	15,000

You are now required to provide with necessary calculations and relevant information, in the form of a report to the Cost Controller about the allocation of overheads costs to the products. **[7]**

3. A review, made by the top management of Sweet and Struggle Ltd. which makes only one product, of the result of two first quarters of the year revealed the following:

Sales in units	10,000
Loss	₹ 10,000
Fixed Cost (for the year ₹1,20,000)	30,000 Quarter
Variable cost per unit	₹ 8

The finance Manager who feels perturbed suggests that the company should at least break-even in the second quarter with a drive for increased sales. Towards this the company should introduce a better packing which will increase the cost by ₹ 0.50 per unit.

The Sales Manager has an alternate proposal. For the second quarter additional sales promotion expenses can be increased to the extent of ₹ 5,000 and a profit; of ₹ 5,000 can be aimed at for the period with increased sales.

The production manager feels otherwise. To improve the demand the selling price per unit has to be reduced by 3%. As a result the sales volume can be increased to attain a profit level of ₹ 4,000 for the quarter.

The Managing Director asks for as a cost Accountant to evaluate these three proposals and calculate the additional units required to reach their respective targets help him to make a decision. **[14]**

4. (a) S Ltd. furnishes you the following information relating to the half year ended 30th June, 2022.

Fixed expenses	₹ 45,000
Sales value	₹ 1,50,000
Profit	₹ 30,000

During the second half the year the company has projected a loss of ₹10,000.

Calculate:

i. The B.E.P and M/S for six months ending 30th June, 2022.
ii. Expected sales volume for the second half of the year assuming that the P/V Ratio and Fixed expenses remain constant in the second half year also.
iii. The B.E.P and M/S for the whole year for 2022. **[7]**

(b) XYZ Ltd which has a system of assessment of Divisional Performance on the basis of residual income has two Divisions, Alfa and Beta. Alfa has annual capacity to manufacture 15,00,000 numbers of a special component that it sells to outside customers, but has idle capacity. The budgeted residual income of Beta is ₹ 1,20,00,000 while that of Alfa is ₹ 1,00,00,000. Other relevant details extracted from the budget of Alfa for the current years were as follows:

Particulars	
Sale (outside customers)	12,00,000 units @ ₹ 180 per unit
Variable cost per unit	₹ 160
Divisional fixed cost	₹ 80,00,000
Capital employed	₹ 7,50,00,000
Cost of Capital	12%

Beta has just received a special order for which it requires components similar to the ones made by Alfa. Fully aware of the idle capacity of Alfa, beta has asked Alfa to quote for manufacture and supply of 3,00,000 numbers of the components with a slight modification during final processing. Alfa and Beta agree that this will involve an extra variable cost of ₹ 5 per unit.

Advice the transfer price which Alfa should quote to Beta to achieve its budgeted residual income. **[7]**

5. ABC Ltd adopts a standard costing system. The standard output for a period is 20,000 units and the standard cost and profit per unit is as under:

	₹
Direct Material (3 units @ ₹1.50)	4.50
Direct Labour (3 Hrs. @ ₹1.00)	3.00
Direct Expenses	0.50
Factory Overheads : Variable	0.25
Fixed	0.30
Administration Overheads	0.30
TOTAL COST	8.85
PROFIT	1.15
SELLING PRICE (FIXED BY GOVERNMENT)	**10.00**

The actual production and sales for a period was 14,400 units. There has been no price revision by the Government during the period.

The following are the variances worked out at the end of the period.

		Favourable (₹)	**Adverse (₹)**
Direct Material			
	Price		4,250
	Usage	1,050	
Direct labour			
	Rate		4,000
	Efficiency	3,200	
Factory Overheads			
	Variable – Expenditure	400	
	Fixed – Expenditure	400	
	Fixed – Volume		1,680
Administration Overheads			
	Expenditure		400
	Volume		1,680

You are required to:
Ascertain the details of actual costs and prepare a Profit and Loss Statement for the period showing the actual Profit/Loss. Show the workings clearly.
Reconcile the Actual Profit with Standard Profit. **[14]**

6. (a) The cost accountant of a Co. was given the following information regarding the OHs for Feb, 2022:

a. Overhead cost variance ₹ 1,400 (A)
b. Overheads volume variance ₹1,000 (A)
a. Budgeted hours for Feb, 2022: 1,200 Hours
b. Budgeted OH for Feb, 2022: ₹ 6,000
c. Actual rate of recovery of OH ₹ 8 per hour

You are required to assist him in computing the following for Feb, 2022

i. OH expenditure variance
ii. Actual OH incurred
iii. Actual hours for actual production
iv. OH capacity variance
v. OH efficiency variance
vi. Standard hours for actual production

(b) Draw up a flexible budget for overhead expenses on the basis of the following data and determine the overhead rates at 70%, 80% and 90% **[7]**

Plant Capacity	At 80% capacity ₹
VARIABLE OVERHEADS:	
Indirect labour	12,000
Stores including spares	4,000
SEMI VARIABLE:	
Power (30% - Fixed: 70% -Variable)	20,000
Repairs (60%- Fixed : 40% -Variable)	2,000
Fixed Overheads	
Depreciation	11,000
Insurance	3,000
Salaries	10,000
Total overheads	62,000
Estimated Direct Labour Hours	1,24,000

7.(a) Consider the following:

	Division A	Division B
Operating assets	₹ 50,00,000	₹ 1,25,00,000
Operating income	₹ 10,00,000	₹ 22,50,000
ROI	20%	18%

(i) Identify which is the more successful division in terms of ROI?
(ii) Using 16 percent as the minimum required rate of return compute the residual income for each division. Which division is more successful under this rate? **[7]**

(b) A firm received an order to make and supply eight units of standard product which involves intricate labour operations. The first unit was made in 10 hours. It is understood that this type of operations is subject to 80% learning rate. The workers are getting a wages rate of ₹ 12 per hour. **[7]**

(i) Compute the total time and labour cost required to execute the above order.

(ii) If a repeat order of 24 units is also received from the same customer, compute the labour cost necessary for the second order?

8. (a) Describe the meaning of uncertainty in decision making. **[7]**

(b) Explain the relation between decentralization and responsibility accounting. **[7]**