



CHAPTER - 14

MARGINAL COSTING

- Q. 1.** A company budgets for a production of 1,50,000 units. The variable cost per unit is ₹ 14 and fixed cost is ₹ 2 per unit. The company fixes its selling price of fetch a profit of 15% on cost.
- (a) What is the break - even point?
 - (b) What is profit - volume ratio?
 - (c) If it reduces its selling price by 5%, how does the revised selling price affect the break - even point and the profit - volume ratio?
 - (d) If a profit increase of 10% is desired more than the budget, what should be the sale at the reduced prices?

- Q. 2.** Amazing Ltd., manufactures a single product, wonder. The following figures relate to wonder for a one - year period :

Activity Level	50%	100%
Sales and production (units)	400	800
	₹ lakhs	₹ lakhs
Sales	8.00	16.00
Production costs :		
Variable	3.20	6.40
Fixed	1.60	1.60
Selling and Administration costs :		
Variable	1.60	3.20
Fixed	2.40	2.40

The normal level of activity for the year is 800 units. Fixed costs are incurred evenly throughout the year, and actual fixed costs are the same as budgeted. There were no stocks of wonder at the beginning of the year.

In the first quarter, 220 units were produced and 160 units were sold.

Required :

- (a) What would be the fixed production costs absorbed by wonder if absorption costing is used?
- (b) What would be the under / over - recovery of overheads during the period?
- (c) What would be the profit using absorption costing (transferred under / over recovery to cost of sales)?
- (d) What would be the profit using marginal costing?
- (e) Why is there a difference between the answers to (c) and (d)?

Q. 3. The following figures relate to a Company manufacturing a varied range of products :

	Total Sales	Total Cost
	₹	₹
Year ended 31st December 2007	22,23,000	19,83,600
Year ended 31st December 2008	24,51,000	21,43,200

Assuming stability in price, with variable costs carefully controlled to reflect predetermined relationships, and an unvarying figure for fixed costs, calculate :

- (a) The profit / volume ratio, to reflect the rate of growth for profit and sales
- (b) Fixed cost
- (c) Fixed cost % to sales
- (d) Break - even point
- (e) Margin of safety for the year 2007 and year 2008.

Q. 4. Vinak Ltd., which produces three products furnishes you the following data for 2007-08 :

Products	A	B	C
Selling price per unit (₹)	100	75	50
Profit volume ratio (%)	10	20	40
Maximum sales potential (units)	40,000	25,000	10,000
Raw material content as percentages of variable costs (%)	50	50	50

The fixed expenses are estimated at ₹ 6,80,000. The Company uses a single raw material in all the three products. Raw material is in short supply and the company has a quota for the supply of raw materials of the value of ₹ 18,00,000 for the year 2007-08 for the manufacture of its products to meet its sales demand.

You are required to :

- (i) Set a product mix which will give a maximum overall profit keeping the short supply of raw materials in view.
- (ii) Compute that maximum profit.

Q. 5. The profits volume ratio of X Ltd. is 50% and the margin of 'safety is 40%. You are required to calculate the net profit if the sales volume is ₹ 1,00,000.

- Q. 6.** (i) Ascertain profit, when sales = ₹ 2,00,000
 Fixed Cost = ₹ 40,000
 BEP = ₹ 1,60,000
- (ii) Ascertain sales, when fixed cost = ₹ 20,000
 Profit = ₹ 10,000
 BEP = ₹ 40,000

- Q. 7.** A and B give contributions of ₹ 2 and ₹ 3 respectively. Fixed cost is ₹ 10,000. Find BEP assuming sales mix to be 3 : 8 in units.
- Q. 8.** A and B have PV ratio of 30% & 40%. Fixed cost is ₹ 20,000. Find BES assuming sales mix of 2 : 3 in ₹.
- Q. 9.** A and B have selling price of ₹ 10 & ₹ 20 while there variable cost per unit is ₹ 4 & ₹ 15. No. of units A and B expected to be sold is equal to 10,000 units & 20,000 units. Make income statement and find break even point in ₹ and units. Fixed cost p.a. ₹ 80,000.

- Q. 10.** PQ Ltd. has been offered a choice to buy a machine between A and B.

You are required to compute :

- Break-even point for each of the machines.
- The level of sales at which both machines earn equal profits.
- The range of sales at which one is more profitable than the other.

The other relevant data is as given below :

	Machine A	Machine B
Annual output in units	10,000	10,000
Fixed cost	30,000	16,000
Profit at above level of production	30,000	24,000

The market price of the product is expected to be ₹ 10 per unit.