Cost Accounting

T.Y.B.Com.
(Semester – VI)

INTRODUCTION TO MARGINAL COSTING

1. From the following data, calculate break-even point (BEP) :

Particulars	₹
Selling price per unit	20
Variable cost per unit	15
Fixed overheads	20,000

If sales are 20% above BEP, determine the net profit.

2. (i) Find out contribution and BEP sales if Budgeted Output is 80,000 units. Fixed cost is ₹ 4,00,000. Selling price per unit is ₹ 20. Variable cost is ₹ 10.

(ii) Find out Margin of safety, if profit is ₹ 20,000 and PV Ratio is 40%.

3. From the following data, calculate :

(i) Break-even point expressed in amount of sales in rupees.

(ii) Number of units that must be sold to earn a profit of ₹ 1,60,000 per year.

Selling price	₹ 20 per unit
Variable manufacturing cost	₹ 11 per unit
Variable selling cost	₹ 3 per unit
Fixed factory overheads	₹ 5,40,000 per year
Fixed selling cost	₹ 2,52,000 per year

4. Sales ₹ 1,00,000; Profit ₹ 10,000; Variable cost 70%.
Find out : (a) PV ratio; (b) Fixed cost; and (c) Sales to earn profit ₹ 40,000.

5. The following data have been extracted from the books of Alfa Ltd.

Year	Sales (₹)	Profit (₹)
2012	5,00,000	50,000
2013	7,50,000	1,00,000

You are required to calculate : (i) P/V ratio; (ii) Fixed cost; (iii) Break-even Sales; (iv) Profit on sales of ₹ 4,00,000; (v) Sales to earn a profit of ₹ 1,25,000.

6. From the following calculate :

(i) Contribution per unit

(ii) Margin of Safety

(iii) Volume of Sales to earn a profit of ₹ 24,000

Total Fixed Costs	₹ 18,000
Total Variable Costs	₹ 30,000
Total Sales	₹ 50,000
Units Sold	20,000

7. From the following particulars, you are required to calculate :

(i) Fixed cost

(ii) Profit Volume ratio

(iii) Break-even Sales

(iv) Sales to earn Profit of ₹ 6,00,000

(v) Margin of Safety of the year 2012

Particulars	2012 (₹)	2013 (₹)
Total Cost	12,96,000	18,72,000
Sales	14,40,000	21,60,000

8. M/s. EAR Enterprises furnish the following information :

Year	Sales (₹)	Profit (₹)
2013	6,00,000	60,000
2014	8,00,000	1,00,000

From the above calculate the following :

(i) P/V Ratio

(ii) Fixed Cost

(iii) Break-even Cost

(iv) Sales to earn profit of ₹ 2,00,000

(v) Margin of Safety of 2014

9. From the following data find out :

(i) Sales; and (ii) New break-even sales, if selling price is reduced by 10%

Particulars	₹
Fixed Cost	4,000
Break-even Sales	20,000
Profit	1,000
Selling price per unit	20

10. K.T. and Co. has prepared the following budget estimates for the year 2002-2003 :

Sales	15,000 units
Sales value	₹ 1,50,000
Fixed expenses	₹ 34,000
Variable cost per unit	₹ 6

You are required to find : (i) Profit Volume Ratio; (ii) Break-even point; (iii) Margin of Safety Also calculate revised Profit volume ratio, Break-even point and Margin of Safety, if Selling price per unit is reduced by 10%.

11. Z Ltd. produces and sales a single article at ₹ 10 each. The marginal cost of production is ₹ 6 each and fixed cost is ₹ 400 per annum. Calculate :

(i) P/V ratio

(ii) The break even sales (in ₹ and Nos.)

(iii) The sales to earn a Profit of ₹ 500
(iv) Profit at sales of ₹ 3,000
(v) New break-even point if sales price is reduced by 10%
(vi) Margin of safety at sales of ₹ 1,500
(vii) Selling price per unit if the break-even point is reduced to 80 units.

12. The following is the cost structure of a product. Selling price ₹ 100 per unit.

Variable cost per unit

Material	₹ 38
Labour	₹ 14
Direct Expenses	₹ 8

Fixed overheads for the year

Factory overheads	₹ 2,80,000
Office overheads	₹ 2,20,000

No. of units produced and sold 40,000

Calculate :
(i) P/V ratio
(ii) Break-even point in units
(iii) Margin of Safety amount
(iv) Break-even point if Fixed overheads increased by 20%
(v) Revised P/V ratio when Selling price increased by 20%

13. The following figures relate to M/s. Deepak Industries :

Fixed Overheads	₹ 2,40,000
Variable Overheads	₹ 4,00,000
Direct Wages	₹ 3,00,000
Direct Materials	₹ 8,00,000
Sales	₹ 20,00,000

Calculate : (i) P/V ratio; (ii) BEP; (iii) Margin of Safety

14. Margin of Safety is ₹ 4,20,000 which is 30% of total sales and Profit Volume ratio is 25%.
From the above calculate :
(i) Total Sales
(ii) Profit on present Sales
(iii) Fixed cost
(iv) Sales to earn profit ₹ 1,40,000

15. A company annually manufactures and sells 20,000 units of a product, the selling price of which is ₹ 50 and profit earned is ₹ 10 per unit.
The analysis of cost of 20,000 units is :

Material cost	₹ 3,00,000
Labour cost	₹ 1,00,000

Overhead (50% variable) ₹ 4,00,000

You are required to compute :

(i) Contribution per unit

(ii) P/V ratio

(iii) Break-even Sales in ₹

(iv) Sales required to earn a profit of ₹ 4,00,000

(v) Profit when Sales is 18,000 units

(vi) Margin of Safety when actual sales is ₹ 7,00,000

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