

MARGINAL COSTING

Time Allowed : 35 Minutes

TEST – 8 (Solution)

Total: 20 Marks

Answer to Question no.1:

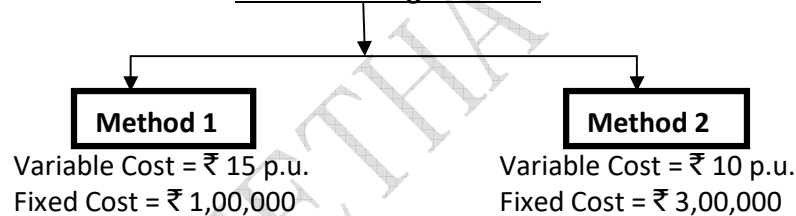
Marginal Costing Vs. Absorption Costing

- 1) Marginal costing can be regarded as “Variable Cost” technique in which fixed cost is ignored. Absorption Costing can be regarded as “Total Cost” technique which gives due importance to the fixed cost.
- 2) In marginal costing, the stock valuation is done on the basis of variable Manufacturing Cost whereas in Absorption Costing, the stock valuation is done on the basis of Total Manufacturing Cost which includes variable as well as fixed part.
- 3) **Example:-**
 - a) Variable Manufacturing Cost = ₹ 20 p.u.
 - b) Fixed Manufacturing Cost = ₹ 50,000
 - c) Normal Output = 10,000 units.
 - d) Recovery Rate of Fixed Manufacturing Cost = ₹ 5 p.u.
 - e) Total Manufacturing Cost p.u. = 20 + 5 = ₹ 25 p.u.

In marginal costing, the stock valuation is to be made @ ₹ 20 p.u. whereas in absorption costing, the stock valuation is to be made @ ₹ 25 p.u.
- 4) In absorption costing, the fixed cost in part of decision-making process and there in every possibility of under-recovery or over-recovery of such cost. However, in case of marginal costing, there is no such possibility of under-recovery or over-recovery of fixed cost.

Answer to Question no.2:

Manufacturing Methods



1) Determination of Cost Indifference:-

$$= \frac{\text{Difference in Fixed Cost}}{\text{Difference in Variable Cost p.u.}}$$

$$= \frac{\text{₹ 3,00,000} - \text{₹ 1,00,000}}{\text{₹ 15 p.u.} - \text{₹ 10 p.u.}} = 40,000 \text{ units.}$$

Interpretation:-

Output level	Conclusion
Less than 40,000 units	Select such method which involves lesser Fixed Cost. So, Method 1 is recommended
More than 40,000 units	Select such method which involves lesser Variable Cost per unit. So, Method 2 is recommended
Equals to 40,000 units	Indifference Position.

2) $BEP = \frac{\text{Fixed Cost}}{\text{Selling Price p.u.} - \text{Variable Cost p.u.}}$

Method 1 = $\frac{\text{₹ 1,00,000}}{\text{₹ 25} - \text{₹ 15}} = 10,000 \text{ units}$

Method 2 = $\frac{\text{₹ 3,00,000}}{\text{₹ 25} - \text{₹ 10}} = 20,000 \text{ units}$

Answer to Question no.3:**Basic calculations:-**

Variable cost p.u. = 30 + 20 + 10 = ₹ 60

Selling price p.u. = ₹ 80

Contribution p.u. = ₹ 80 - ₹ 60 = ₹ 20

$$P/V \text{ Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100 = \frac{20}{80} \times 100 = 25\%$$

- (i) Due to 20% increase in wage cost, the variable cost per unit will become ₹ 60 + 20% of ₹ 20 i.e. ₹ 64. We have to calculate the selling price per unit upon the condition that P/V ratio should remain unchanged.

$$P/V \text{ Ratio} = \frac{SP/Unit - VC/Unit}{SP/Unit} \times 100 \Rightarrow \frac{25}{100} = \frac{SP/Unit - 64}{SP/Unit}$$

Solving, we get SP/Unit = ₹ 85.33

Increase in SP/Unit = ₹ 85.33 - ₹ 80 = ₹ 5.33

- (ii) Variable cost p.u. = ₹ 64

Selling price p.u. = ₹ 80 (unchanged)

Contribution p.u. = ₹ 80 - ₹ 64 = ₹ 16

$$P/V \text{ Ratio} = \frac{\text{Contribution}}{\text{Sales}} \times 100 = \frac{16}{80} \times 100 = 20\%$$

Existing profit = Existing Contribution – Fixed Cost

$$= (50,000 \text{ units}) (\text{₹ } 20) - \text{₹ } 2,00,000 = \text{₹ } 8,00,000.$$

The existing profit of ₹ 8,00,000 is also desired in the future. Hence, the quantity to be sold in future is computed below: -

$$\frac{\text{Fixed Cost} + \text{Desired Profit}}{\text{Contribution / unit}} = \frac{\text{₹ } 2,00,000 + \text{₹ } 8,00,000}{\text{₹ } 16 \text{ per unit}} = 62,500 \text{ units}$$

Therefore, the quantity to be sold in future is to be increased by 12,500 units (62,500 units - 50,000 units).

- (iii) We are given that existing capacity of 50,000 units is to be increased by 30% and it will become 65,000 units. Also given that fixed cost will get increased by ₹ 1,00,000. Hence, the profit is now computed as:

$$-\text{Contribution} - \text{Fixed Cost} = (65,000 \text{ units}) (\text{₹ } 16) - \text{₹ } 3,00,000 = \text{₹ } 7,40,000.$$