9. Discount and Commission

- Discount is the reduction given on the Marked Price (M.P) of an article.
  Discount = Marked Price – Sale price

  Discount = Discount % of Marked Price

- If the successive discount %, d_1%, d_2%, d_3% … are given, then

$$\textbf{S.P.} = \text{M.P.} \times \left(\frac{\mathbf{100 - d_1}}{\mathbf{100}}\right) \times \left(\frac{\mathbf{100 - d_2}}{\mathbf{100}}\right) \times \left(\frac{\mathbf{100 - d_3}}{\mathbf{100}}\right) \times \ldots.$$

Example:

For the stock sale at the end of a season, a garment shop offers 50% and then 40% on the garments. What is the marked price of a shirt if the shop offers a total discount of Rs 840 after giving two successive discounts?

Solution:

Let the marked price of the shirt be Rs x.

In two successive discounts, d_1% = 50 and d_2% = 40.

We know that

$$\begin{aligned}
\text{S.P.} &= \left(\frac{100 - d_1}{100}\right) \times \left(\frac{100 - d_2}{100}\right) \times \text{M.P.} \\
&= \left(\frac{100 - 50}{100}\right) \times \left(\frac{100 - 40}{100}\right) \times x \\
&= \frac{50}{100} \times \frac{60}{100} \times x \\
&= \frac{3x}{10}
\end{aligned}$$

We know that, discount = M.P. − S.P.

$$\Rightarrow 840 = x - \frac{3x}{10}$$

$$\Rightarrow \frac{7x}{10} = 840$$

$$\Rightarrow x = \frac{840 \times 10}{7} = 1200$$

Hence, the marked price of the shirt is Rs 1200.

1. We often come across situations where selling of goods is done by another person or organization other than the manufacturer or owner. This person or organization is known as **commission agent**.

2. The remuneration received by them for rendering the services is called **commission**.

3. Commission may be taken from buyer or seller or both.

4. In case of commission, cost incurred by buyer can be obtained as follows:

Total money paid by the buyer = Cost Price + Commission

5. In case of commission, money received by seller can be obtained as follows:

Total money received by the seller = Selling Price -Commission

6. Commission is charged on selling price for the seller and on cost price for the buyer.

For example, if cost of car is Rs 74200 and commission charged by commission agent is 3.5%, then the cost of commission can be calculated as:

Commission = 3.5% of Cost price = 3.5% of Rs 74200

$$= \text{Rs } \frac{3.5}{100} \times 74200$$

= Rs 2597