

## HOME ASSIGNMENT -

Q1) Let the C.P of the article be ₹100  
Then, when the merchant offers a discount of 30%  
the merchant will sell the article at :-

$$x - 30\% \text{ of } x = 70\% \text{ of } x \quad \text{--- (1)}$$

less by discount = 16%.

$$\therefore 100 - 16\% \text{ of } 100 = ₹84$$

when she offered a discount of 30% = (2)

Equating 1 + 2

$$0.7x = 84$$

$$\text{or } x = 120$$

$$\therefore 120 - 10\% \text{ of } 120 = ₹108.$$

$\therefore$  she will make a profit of 8%.

Q2) S.P = 18000

P.T = 25%.

C.P = ?

$$C.P = \frac{100 \times 18000}{125} = 14400$$

S.P = 18000, P.T = 25%, C.P = ?

$$C.P = \frac{100 \times 18000}{125} = 14400$$

total S.P = 18000 + 18000 = 36000

total C.P = 24000 + 14400 = 38400

loss = 38400 - 36000 = 2400

l% =  $\frac{2400 \times 100}{38400} = 6.25\%$

Q3) Let C.P be = 100

$$M.P = 100 + \frac{30}{100} \times 100 = 130$$

Discount 30%

$$S.P = 130 - \frac{30}{100} \times 130 = 130 - 39 = 91$$

$$\text{Loss} = \frac{100 - 91}{100} = 9\%$$

Q4) S.P of remaining = 4145 - 24660 = 19485

$$\text{Remaining Bags} = 90 - 30 - 20 = 40 \quad SP = \frac{19485}{40} = 487.125$$

Now, SP of 30 bags at 20% profit

$$C.P \text{ of } 30 \text{ bags} = 30 \times 450 = 13500$$

$$\text{So, } S.P = 13500 + \frac{20}{100} \times 13500 = 16200$$

Now, SP of 20 Bags at 6% loss

$$C.P \text{ of } 20 \text{ Bags} = 450 \times 20 = 9000$$

$$S.P = 9000 - \frac{6}{100} \times 9000 = 9000 - 540 = 8460$$

$$\text{Total } S.P = 8460 + 16200 = 24660$$

$$C.P \text{ of } 90 \text{ bags} = 90 \times 450 = 40500$$

Profit = 9%

$$\text{So, } S.P \text{ should be} = 40500 + \frac{9}{100} \times 40500 = 44145$$

SP of 30 Bags at 20% profit

$$C.P \text{ of } 30 \text{ Bags} = 30 \times 450 = 13500$$

$$\text{So, } S.P = 13500 + \frac{20}{100} \times 13500 = 16200$$