

My introduction \Rightarrow

Profit and Loss, Percentage

Q.1 Given Data: \Rightarrow

loss of 25% , SP = ? 450
CP = ?

$$CP = \frac{100}{100 - \text{loss}\%} \times SP.$$

$$CP = \frac{100}{100 - 25} = \frac{100}{75}$$

$$CP = \frac{450 \times 100}{75} = 600.$$

option - (c) 600

Q.2 Given data:-

Cost Price = 1200, SP = 1440, P% = ?

$$\text{Profit} = SP - CP$$

$$= 1440 - 1200$$

$$= 240.$$

$$\text{Profit \%} = \frac{240}{1200} \times 100 = 20\%.$$

Option - (d) 20% .

Q.3 \rightarrow Given data:-

$$SP = 960, CP = 800$$

$$P\% = ?$$

$$P = SP - CP = 960 - 800$$

$$P = 160$$

$$P\% = \frac{160}{800} \times 100 = 20\%$$

option - (b) 20%

Q.4 \rightarrow Given data:-

$$CP = 400, SP = 480, P\% = ?$$

$$P = SP - CP$$

$$P = 80$$

$$P\% = \frac{80}{400} \times 100$$

$$P\% = 20$$

option = (b) 20%

Q.4 \rightarrow Given data:-

$$\text{Loss \%} = 20, SP = 1200$$

$$CP = \frac{100}{100 - \text{Loss \%}} \times SP$$

$$= \frac{100}{100 - 20} \times 1200$$

$$= 100 - 2$$

$$= 12000$$

$$= 80$$

$$= 1500$$

option - (b) 1500

Q.5 Given data:-

$$CP = 400, SP = 480, P\% = ?$$

$$P = SP - CP$$

$$P = 80$$

$$P\% = \frac{80}{400} \times 100$$

$$P\% = 20$$

option = (b) 20%

Q.6 Given data:-

$$\text{1st discount} = 20\%,$$

$$\text{2nd} = 10\%$$

$$\text{Net discount} = D_1 + D_2 -$$

$$\cancel{\frac{D_1 \times D_2}{100}}$$

$$= 20 + 10 - \frac{(20 \times 10)}{100}$$

$$= 30 - 2$$

$$= 28\%$$

option = (a) 28%

Q.7 \rightarrow Given data:-

$$SP = 800, \text{discount} = 20\%$$

$$MP = ? \quad MP = \frac{SP}{1 - \text{Discount}}$$

$$= \frac{800}{1 - 0.20} = \frac{800}{0.80}$$

$$MP = 1000$$

option = (d) ₹ 1000.

Q.8 Given data:-

$$SP = 18000, P = 25\%$$

$$CP = ?$$

$$CP = \frac{100}{100 + P\%} \times SP$$

$$= \frac{100}{100 + 25} \times 18000$$

$$= \frac{100}{125} \times 18000 = 1440$$

option = (c) 1440

Q.9 Given data:-

$$MP = 1500, D = 10\%, SP = ?$$

$$MP = \frac{SP}{1-D}$$

$$1500 = \frac{SP}{1-10} \\ SP = 1500(1-10) \\ = 1500 \times 0.9 \\ = 1350.$$

option = (b) ₹ 1350.

Q.11 Given Data:-

$$D = 15\%, P = 20\%, MP = ?$$

$$MP = \frac{35}{65} \times 100 = 41.18\%$$

$$MP = 41.18\%$$

Q.13 Given data:-

$$CP = 800, P = 25\%, SP = ?$$

$$SP = 800 \times 1.25 \\ = 1000.$$

option (b) 1000.

Q.15 Given data:-

$$(P = 100, MP = 150, P = 10\%)$$

$$SP = 20\% = 150 \times 0.80 \\ = 120.$$

$$P = \frac{120-100}{100} \times 100$$

$$= 20\%$$

option @ 20%

Q.10 Given data

$$CP \text{ of } 10 \text{ pen} = 150$$

$$SP \text{ of } 10 \text{ pen} = 200, P = ?$$

$$P = \frac{50}{150} \times 100 = 33.33\%$$

option = (c) 33.33%.

Q.12 Given data

$$SP = 2250, P = 10\%, CP = ?$$

$$CP = \frac{2250 \times 100}{100} = 22050$$

option = (d) ₹ 22050.

Q.

Q.14 Given data

$$L = 10\%, SP = 15000, CP = ?, CP = 15000$$

$$= 16,666.7$$

option = 16,666.7.

Q.16 Given data

$$CP = 400, P = 12\%, D = 5\%$$

$$SP = 12\% = 400 \times 1.12 \\ = 448$$

$$MP = \frac{448}{1 - 0.05} = \frac{448}{0.95}$$

$$= 471$$

option = (c) 471

Q.17 Given data:-

$$CP = 480, SP = 576, P\% = ?$$

$$P\% = \frac{576 - 480}{480} \times 100 = 20\%$$

option = (C) 20%

Q.18 Given data:-

$$P\% = 15\%, SP = 2300, CP = ?$$

$$CP = \frac{2300}{1.15} = 2000$$

option = (B) 2000

Q.19 Given data:-

$$\text{loss} = 20\%, SP = 640.$$

$$CP = \frac{640 \times 100}{100 - 20}$$

$$= 800$$

option = (C) 800.

Q.20 Given Data:-

$$\text{Profit} = 20\%, SP = 500$$

$$CP = \frac{500 \times 100}{100 + 20}$$

$$= 416.67$$

Q.18 → Given data:-

$$P\% = 50, CP = \frac{150}{500} \times 500$$

$$\text{Profit} = \frac{50}{500} \times 100$$

$$= 10\%$$

option = (D) 10%

Q.20. → Given data.

$$CP = 750, SP = 900.$$

$$P\% = ?$$

$$\text{Profit} = \frac{150}{750} \times 100$$

$$= 20\%$$

option = (D) 20%

Q.22 → Given data.

$$\text{Profit} = 20\%, SP = ?$$

$$CP = \frac{9600 \times 100}{100 + 20}$$

$$= 8000$$

option (B) = 8000

Q.24. → Given data:

$$T(P\%) = 1500 + 1500 = 3000$$

$$SP(20\%) = 1500 \times 20 = 1800,$$

$$SP(10\% \text{ loss}) = 1500 \times 0.90$$

$$\text{Total SP} = 1350$$

$$= 1800 + 1350 = 3150$$

$$\text{Net profit} = 3150 - 3000$$

$$\text{Profit} = \frac{150}{3000} \times 100 = 5\%$$

Q. 25. Given data:-
 Loss = 12%. SP = 1250.
 $CP = \frac{1250}{100} \times 100$
 $= \frac{100}{12} \times 12$
 $= 1420.45$.
 Option = 1420.45.

Q. 26. Given data:-
 Let CP for 1 article = 100
 & SP for 0.5 = 200
 $Total SP = 200 \times 2 = 400$
 $Profit = \frac{400 - 100}{100} \times 100$
 $P = 300\%.$

Q. 27. Given data:-
 let no. be x .
 $eq^n = 2x(x \times 0.20x)$
 $= 490.$
 $0.40x^2 = 490$
 $x^2 = 1225$
 $x = 35.$

Q. 28. Given data.
 $SP = 50 = S \times 1.5P$.
 $SP = \frac{50}{0.80} = 1000$
 $CP = (20 \times 1.2) = 1000$
 $\underline{-} \quad \underline{0.80}$
 $\underline{\underline{1280}}.$
 $Total = CP - SP + Loss$
 $= 1250 - 1000 + 150$
 $Loss = 300.$

Q. 29. Let $CP = 100$
 SP falls at 20% $\rightarrow 1$)
 $= 50 \times 0.80 = 40$
 $SP(1/2 \times 50 \times 1.5) = 50 \times 1.50$
 $\underline{-} \quad \underline{75}$
 $Total SP = 40 + 75 = 115$
 $P\% = \frac{115 - 100}{100} \times 100$
 $P\% = 15\%.$

Q. 30. Given data:-
 $CP = 6000, SP = 800$
 $Loss = \frac{50}{1.10} = 45.45$
 $Loss\% = \frac{45.45}{6000} \times 100$
 $Loss\% = 0.76\%.$

Q.31 Let CP of 2 articles = 100
 $P = 100$
 $SP = CP + P \Rightarrow 100 + 200 = 300$
 $P\% = \frac{200}{100} \times 100 = 200\%$
 $\therefore P\% = 200\%$

Q.32 Let $CP = 100, SP \# 25$
 $New CP (\sqrt{10\%}) =$
 $= \frac{100}{\cancel{100}} \times 0.90$
 $= 90$
 $New P\% = \frac{125 - 90}{90} \times 100$
 $Profit \approx 35.8\%$

Q.34. Given data:
initial SP = 50 & profit = 60.
New CP = $100 \times 2 = 200$.
New SP = $600/2 = 300$
New P.I. = $\frac{300 - 200}{200} \times 100$
New P.I. = 50%

Q.35 initial price = 100
New = 125
To spend = $125 - 100$
Some amt $\cancel{+ 25}$
= 25×1

Q.36: Let CP = 100 then PGS
 $x = 1500$
Profit = 200, Profit % =
 $\frac{200 \times 100}{1500}$
Profit % = 13.33%

Q.37. Given data:
 $0.40a = 0.50b$
 $\frac{a}{b} = \frac{0.50}{0.40} = \frac{5}{4}$
 $x = 20\% \text{ of } 12 \cdot 1 \cdot 05$
 $x = 120 \cdot 1 \cdot 05 \times 6250$
 $x = 0.20 \times 0.12 \times 1.20 \times 6250$

Q.38 Let $D = 5x$, then MP = $5x$
 $SP = MP - D = 5x - x = 4x$
 $x \leq 4$ time discount

$= 0.20 \times 0.12 \times 7500$
 $= 0.20 \times 900$
 $= x = 180$

Q. 40 : Given data
 $CP = 500$

desired profit = 100%
 $of SP = 1000$

$$MP(3S \cdot 1 \cdot \text{dis}) = 1000$$

$\overline{0.65}$

$$MP = 21538.46.$$

Q. 42 : Let $CP = x + 50x$
 Given $SP = CP$
 $MP = SP + D = 1000 - x$
 $x = \$ 3333.33$

Q. 44 : Let x .

$$0.20x = 20 + 0.20 \times 20$$

$$0.20x = 20 + 4$$

$$0.20x = 24$$

$$x = 120.$$

Q. 47 : - 65% of 234

$$0.65 \times 234 = 152.1.$$

Reduction needed
 $\approx 234 - 152.1.$

Reduction
 needed = 81.9

Q. 41 : Let $B = 100$, then
 $A = 125$
 $b < A = \frac{125 + 100}{125} \times 100$
 $B < A = 120\%$

Q. 43 $CP = 70\% \text{ of } SP$
 $D = 40\% \text{ of } SP$
 $MP = SP + D$
 $= 12800 \rightarrow SP + 0.40 \times 50\%$
 $= 9000$
 $(CP = 70\% \text{ of } SP)$
 $= 6300.$

Q. 46 : Let x

After doubling & tripling
 choice

$$x \times 2 \times 3 \times 2 \times 3$$

$$= 36x.$$

$$\therefore \text{Change} = \frac{36x - x}{x}$$

$$\therefore \text{Change} = 3500\%.$$

Q. 48 \Rightarrow

$$0.90 \times 9 \times 90 \times 1$$

$$= 0.90 \times 9 \times 810$$

$$= 0.90 \times 7290$$

$$= 6561.$$

Q. 49: ~~if~~ ~~Salary / emp = 100~~

total initial exp = 2500

After layoff = 12 emp
new salary = 124.

$$\text{new exp} = 12 \times 124 \\ = 1488$$

$$\downarrow \% = \frac{2500 - 1488}{2500} \times 100$$

$$\downarrow \% = 40.48\%$$

Q. 50 Given data.

$$CP = 3500$$

$$D = 15\%$$

$$= 0.15 \times 3500$$

$$= 525$$

$$\therefore 525$$