

PG-DAC FEB 25 APTITUDE QUESTION BANK

Topic: Profit & Loss , Percentage

1. If an article is sold at a loss of 25%, and the selling price is ₹450, find the cost price.
 - a) ₹500
 - b) ₹550
 - c) ₹600
 - d) ₹650
2. A person bought an item for ₹1200 and sold it for ₹1440. What is the profit percentage?
 - a) 10%
 - b) 15%
 - c) 20%
 - d) 25%
3. If the selling price of an item is ₹960 and the cost price is ₹800, what is the profit percentage?
 - a) 15%
 - b) 20%
 - c) 25%
 - d) 30%
4. A shopkeeper sells a fan at ₹1200 with a loss of 20%. Find the cost price.
 - a) ₹1400
 - b) ₹1500
 - c) ₹1600
 - d) ₹1700
5. If the cost price of an article is ₹400 and it is sold for ₹480, what is the profit percentage?
 - a) 15%
 - b) 20%
 - c) 25%
 - d) 30%

6. A trader gives two successive discounts of 20% and 10%. Find the net discount percentage.
- a) 28%
 - b) 30%
 - c) 32%
 - d) 36%
7. A man sold a shirt for ₹800 after giving a 20% discount. Find the marked price.
- a) ₹900
 - b) ₹1000
 - c) ₹1100
 - d) ₹1200
8. A watch is sold for ₹1800 with a 25% profit. Find the cost price.
- a) ₹1200
 - b) ₹1300
 - c) ₹1400
 - d) ₹1500
 - e) ₹1440
9. A shopkeeper marks an article at ₹1500 and allows a 10% discount. Find the selling price.
- a) ₹1300
 - b) ₹1350
 - c) ₹1400
 - d) ₹1450
10. A merchant buys 10 pens for ₹150 and sells them for ₹200. What is his profit percentage?
- a) 25%
 - b) 30%
 - c) 33.33%
 - d) 40%
11. A trader gives a 15% discount on an item and still makes a profit of 20%. What is the markup percentage?
- a) 30%
 - b) 35%

- c) 40% (41.18%)
- d) 45%

12. A table is sold for ₹2250 at a 10% profit. What is the cost price?

- a) ₹1800
- b) ₹1900
- c) ₹2000 (₹2045.4)
- d) ₹2100

13. If a shopkeeper wants a profit of 25% on an item that costs ₹800, what should be the selling price?

- a) ₹900
- b) ₹1000
- c) ₹1050
- d) ₹1100

14. A refrigerator is sold for ₹15,000 at a loss of 10%. Find the cost price.

- a) ₹16,500 (₹16,667)
- b) ₹17,000
- c) ₹16,000
- d) ₹16,800

15. An article is marked 50% above the cost price and then sold at a discount of 20%. What is the profit percentage?

- a) 20%
- b) 25%
- c) 30%
- d) 35%

16. A dealer makes a profit of 12% after allowing a 5% discount. Find the marked price of an article whose cost price is ₹400.

- a) ₹500 (₹471.57)
- b) ₹510
- c) ₹520
- d) ₹530

17. A book is bought for ₹480 and sold for ₹576. What is the profit percentage?
- a) 15%
 - b) 18%
 - c) 20%
 - d) 25%
18. If a profit of ₹50 is made on an article whose cost price is ₹500, what is the profit percentage?
- a) 8%
 - b) 9%
 - c) 10%
 - d) 12%
19. A shopkeeper sells a cycle at a 15% profit and the selling price is ₹2300. Find the cost price.
- a) ₹1900
 - b) ₹2000
 - c) ₹2100
 - d) ₹2200
20. The cost price of an article is ₹750 and it is sold at ₹900. What is the gain percentage?
- a) 15%
 - b) 18%
 - c) 20%
 - d) 25%
21. A man sells an item at 20% loss. If the selling price is ₹640, find the cost price.
- a) ₹700
 - b) ₹750
 - c) ₹800
 - d) ₹850
22. A trader sells a mobile phone for ₹9600 at a profit of 20%. Find the cost price.
- a) ₹7500
 - b) ₹8000
 - c) ₹8200
 - d) ₹8500

23. A shopkeeper sells an item for ₹500 at a 20% profit. What was the cost price?

- a) ₹400
- b) ₹410
- c) ₹420 (₹416.67)
- d) ₹430

24. A man buys two articles for ₹1500 each. He sells one at a 20% profit and the other at a 10% loss. Find his net profit/loss.

- a) 5% loss
- b) 5% profit
- c) 10% profit
- d) No profit, no loss

25. A trader sells an article at ₹1250 with a loss of 12%. Find the cost price.

- a) ₹1300
- b) ₹1400 (₹1420.45)
- c) ₹1450
- d) ₹1500

26. Find the profit percent earned after selling an article at a doubled rate for half quantity.

- a) 200%
- b) 300%
- c) 400%
- d) 450%

27. A number is multiplied by 20% of itself, the sum is then doubled. If the final value is 490, find the number.

- a) 35
- b) 40
- c) 45
- d) 50

28. An article is sold at 20% less than its cost price. If the selling cost is 50 rupees and the selling cost is 5% of the selling price, find the loss. (Selling cost here is the expense occurred to sell the article, it is levied on the seller)
- a) 150 rupees
 - b) 200 rupees
 - c) 250 rupees
 - d) 300 rupees
29. If the seller sells half of his goods at 20% loss and the rest of his goods at 50% profit, find the profit percentage on the entire transaction.
- a) 12% profit
 - b) 15% profit
 - c) 20% profit
 - d) 25% profit
30. The expense of selling an article, worth rupees 6000, is 50 rupees. If the selling expenses is 10% more than the loss, find the loss percentage.
- a) 7.5%
 - b) 8.33%
 - c) 9.09%
 - d) 10%
31. The profit on selling 1 article is equal to the cost price of 2 such articles. Find the profit percentage.
- a) 100%
 - b) 150%
 - c) 200%
 - d) 225%
32. The initial price of an article is decreased by 20% but the selling price remains constant. If the initial profit was 500 rupees, find the new profit. It is known the initial profit percent was 20% of cost price
- a) 800 rupees
 - b) 900 rupees
 - c) 1000 rupees
 - d) 1250 rupees

33. The price of a pair of slippers is decreased by 10% and the selling price is constant. If the initial profit percentage was equal to 25%, find the new profit percentage.

- a) 35%
- b) 38.8%
- c) 40%
- d) 42%

34. The cost price of an article is doubled, and the selling price is made half. If the initial profit percentage was 500%, find the profit percentage now.

- a) 25%
- b) 50%
- c) 100%
- d) 250%

35. A shopkeeper increases the price of sugar by 25%. By how much a family should decrease their consumption to maintain the regular price?

- a) 25% increase
- b) 25% decrease
- c) 20% increase
- d) 20% decrease

36. The profit on selling 15 articles is equal to the cost price of 2 articles. Find the profit percentage.

- a) 11.11%
- b) 12.22%
- c) 13.33%
- d) 14.44%

37. 40% of a number a is 50% of a number b, find the value of a : b.

- a) 2 : 3
- b) 1 : 4
- c) 1 : 5
- d) 3 : 5
- e) 5 : 4

38. The marked price of an article is 5 times the discount. Find the selling price in terms of discount.

- a) 2.5 times the discount
- b) 3.5 times the discount
- c) 4 times the discount
- d) 5 times the discount

39. Solve for x; $x = 20\%$ of 12% of 120% of 6250.

- a) 270
- b) 225
- c) 200
- d) 180

40. A shopkeeper purchased an article for 500 rupees. At what price should he mark the article to allow a discount of 35% and still earn 100% profit.

- a) 1539 rupees
- b) 1593 rupees
- c) 1555 rupees
- d) 1599 rupees

41. A is 25% more than b. By what percent is b smaller than a?

- a) 13.33%
- b) 20%
- c) 22%
- d) 30%

42. If the discount is twice the cost price and the marked price is 10000, find the selling price. No profit or loss was made.

- a) 1111.11 rupees
- b) 3333.33 rupees
- c) 5555.55 rupees
- d) 7777.77 rupees

43. The cost price of an article is 30% less than the selling price. The discount is 40% of the selling price. If the marked price is 12600 rupees, find the cost price.

- a) 6300 rupees
- b) 10000 rupees
- c) 8400 rupees
- d) 5600 rupees

44. If 33.33% of a number is 20 more than 16.66% of the number, find 120% of the number.

- a) 121
- b) 139
- c) 144
- d) 169

45. Find the number if, 20% of a number is 20 more than 20% of another number 20.

- a) 100
- b) 110
- c) 120
- d) 125

46. A number if doubled, then tripled and this process is repeated twice. What is the percentage change?

- a) 3500%
- b) 3000%
- c) 2500%
- d) 1750%

47. By how much should 234 be reduced to make it 65% of itself?

- a) 80.9
- b) 81.9
- c) 82.9
- d) 83.9

48. What is 90% of 900% of 9000% of 9?

- a) 7290
- b) 729

- c) 6156
d) 6561
49. Out of 25 employees of a company, 13 are set of and the salaries of rest of the employees is increased by 24%. Find the total increase of decrease in company's expenditure.
- a) 40.48% decreased
b) 40.44% increased
c) 44.48% decreased
d) 44.84% increased
50. Zayn bought tickets to concert for Rs. 3500. He wants to sell them at a discount of 15%. What is the discount in Rs.?
- a) Rs.1525
b) Rs.350
c) Rs.525
d) Rs.1050

Answers:

- Answers with their explanations are attached further down:

Assignment 2 → Aptitude

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(Q1.) $25\% = \frac{1}{4}$ → C.P. $\frac{4}{1} \times 150 = \text{₹} 600$ A..

S.P. $\frac{150}{3} \rightarrow 450$
 $1 \rightarrow 150$

(Q2.) C.P. $\text{₹} 1200$ S.P. $\text{₹} 1440$ → $\frac{240}{1200} \times 100 = 20\%$ A..

$D = 240$

(Q3.) C.P. 800 S.P. 960 → $\frac{160}{800} \times 100 = 20\%$ A..

$D = 160$

(Q4.) $20\% = \frac{1}{5}$ C.P. $\frac{5 \times 300}{1} = \text{₹} 1500$ A..

S.P. $\frac{300}{4} \rightarrow 75$
 $1 \rightarrow 300$

(Q5.) C.P. 400 S.P. $\text{₹} 480$ → $\frac{80}{400} \times 100 = 20\%$ A..

$D = 80$

(Q6.) Let,
discount given on 100 unit.
So,
 $100 \times \frac{20}{100} = 20$ → $100 - 20 = 80$ unit
→ $80 \times \frac{1}{5} = 16$ → $80 - 16 = 64$ unit
Net discount = 28% A..

Doubts \rightarrow 11, 26, 27, 30
+ Q.7 from B.R.

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(Q.7) S.P. \rightarrow ₹800 ; discount $20\% = \frac{1}{5}$; M.P. = ?

Discount

Non-disc.

$$\begin{aligned} & \text{S.P.} \rightarrow 800 \\ & \text{Discount} \rightarrow 20\% \text{ of } 800 \\ & = \frac{20}{100} \times 800 \\ & = 160 \\ & \text{M.P.} = 800 + 160 \\ & = 960 \end{aligned}$$

$$\begin{aligned} & \text{S.P.} \rightarrow 800 \\ & \text{Discount} \rightarrow 20\% \text{ of } 800 \\ & = \frac{20}{100} \times 800 \\ & = 160 \\ & \text{M.P.} = 800 + 160 \\ & = 960 \end{aligned}$$

(Q.8) S.P. \rightarrow ₹1800 ; P% \rightarrow 25% $\therefore \frac{1}{4}$

C.P.

S.P.

$$\text{C.P.} \rightarrow 1800$$

$$\text{S.P.} \rightarrow 1800$$

$$\text{P\%} \rightarrow 25\% = \frac{1}{4}$$

$$\text{M.P.} = 1800 + \frac{1}{4} \times 1800$$

(Q.9) M.P. \rightarrow ₹1500 ; D \rightarrow 10% $= \frac{1}{10}$; S.P. = ?

$$\text{D} \rightarrow 10\% \text{ of } 1500 = 150$$

$$\text{S.P.} = 1500 - 150 = ₹1350$$

(Q.10) 10% @ ₹150 = C.P. ; S.P. = ₹200

$$\text{D} \rightarrow 10\%$$

$$\text{C.P.} = \frac{10}{100} \times 150 = ₹15$$

(Q.11) D \rightarrow 15% ; P \rightarrow 20% ; M.P. = ? Let C.P. = 100

$$\text{M.P.} = M$$

$$\text{S.P.} = M - 15\% \text{ of } M = 0.85M$$

$$\text{S.P.} = \text{C.P.} + 20\% \text{ of } \text{C.P.} = 120$$

$$0.85M = 120 \therefore M = 141.18$$

$$\text{M\%} = \frac{M - \text{C.P.}}{\text{C.P.}} \times 100 = \frac{141.18 - 100}{100} \times 100 = 41.18\%$$

$$\approx 41\%$$

(Q.12.) S.P. = ₹2250 ; P% = 10% = $\frac{1}{10}$; C.P. = ?

C.P.

$$10 \times 204.54$$

$$2042.0454$$

$$\sim ₹2000$$

S.P.

$$11 \rightarrow 2250$$

$$1 \rightarrow 204.54$$

(Q.13.) 25% $\Rightarrow \frac{1}{4}$

C.P.

$$4 \rightarrow 800$$

$$1 \rightarrow 200$$

S.P.

$$5 \times 200 = ₹1000$$

(Q.14.) S.P. $\Rightarrow 15000$; loss 10% $\Rightarrow \frac{1}{10}$

C.P.

$$10 \times 1666.67$$

$$16666.7$$

S.P.

$$9 \rightarrow 15000$$

$$1 \rightarrow 1666.67$$

(Q.15.) M.P. $\Rightarrow 50\%$ above C.P. ; $D = 20\%$

$$100$$

$$350 \times \frac{1}{5} = 70$$

$$150 - 30 \Rightarrow 120$$

$$120$$

$$20\%$$

(Q.16)

$$P \Rightarrow 12\%$$

$$D = 5\%$$

$$M.P. \Rightarrow 20$$

$$C.P. \Rightarrow ₹400$$

$$10.6$$

$$10.6 \times 100$$

$$1060$$

$$106.4$$

$$106.4$$

$$112$$

$$5.6$$

$$2 \times 106.4$$

$$212.8$$

$$6.4\% \approx \text{Profit}$$

(Q.16) C.P. = ₹400 ; P.Y. = 12% ; D.Y. = 5% ; M.P. = ?

$$S.P. = ₹400 \times \frac{12}{100} = 48 \Rightarrow 400 + 48 = ₹448$$

$$M.P. = S.P. + \text{Discount}$$

$$\therefore S.P. = M.P. - \text{Discount} \quad (\text{Let } M.P. = x)$$

$$\therefore 448 = x - (5\% \text{ of } x)$$

$$\therefore 448 = x - \left(\frac{5x}{100}\right)$$

$$\therefore 448 = x \left(1 - \frac{5}{100}\right)$$

$$\therefore 448 = \frac{95x}{100}$$

$$\therefore 44800 = 95x$$

$$\therefore x = \frac{44800}{95}$$

$$\therefore x = ₹471.57 \quad (\sim ₹500) \quad \Delta$$

(Q.17)

C.P.
2480

S.P.
576

$$\therefore \frac{96}{480} \times 100 = 20\% \quad \Delta$$

$$\Delta = 96$$

(Q.18)

$P = 50$; C.P. = ₹500 ; P.Y. = ?

$$\therefore P.Y. = \frac{P}{C.P.} \times 100 \quad \therefore P = \frac{50}{500} \times 100 = \frac{1}{10} \times 100 = 10\% \quad \Delta$$

(Q19) $\text{S.P.} = 15\%$; $\text{S.P.} = ₹2300$; $\text{C.P.} = ?$

$= \frac{15}{100} \times 2300$

C.P.

$2300 \times \frac{15}{100}$

$₹2000$

S.P.

$2300 \times \frac{100}{100}$

$1 \rightarrow 100$

(Q20) $\text{C.P.} = ₹750$; $\text{S.P.} = ₹900$

$D = 150$

$\frac{150}{750} \times 100 = 20\%$

(Q21) $20\% \Rightarrow \frac{1}{5}$

C.P.

5×160

$₹800$

S.P.

$4 \rightarrow 160$

$1 \rightarrow 160$

(Q22) $\text{S.P.} = ₹9600$; $\text{P.V.} = 20\% \Rightarrow \frac{1}{5}$

C.P.

5×1600

$₹8000$

S.P.

$6 \rightarrow 9600$

$1 \rightarrow 1600$

(Q23) $\text{S.P.} = ₹500$; $\text{P.V.} = 20\%$; $\text{C.P.} = ?$

$\text{P.V.} \Rightarrow 20\% = \frac{1}{5}$

C.P.

5×83.33

$₹416.67$

$\sim ₹420$

S.P.

$6 \rightarrow 500$

$1 \rightarrow 83.33$

(Q24)

I

C.P. \rightarrow 1500P.V. \rightarrow 20% $\rightarrow \frac{2}{5}$

C.P.

S.P.

8 \rightarrow 1200
1 \rightarrow 3006 \times 300 \rightarrow 1800

II

C.P. \rightarrow 1500Loss \rightarrow 10% $\rightarrow \frac{1}{10}$

C.P.

S.P.

18 \rightarrow 1500 \times
1 \rightarrow 1509 \times 150 \rightarrow 1350Total C.P. \rightarrow 3000Total S.P. \rightarrow 3150

150

$$\therefore \frac{150}{3000} \times 100 \rightarrow 15\%$$

(Q25)

S.P. = £1250 ; Loss = 12% $\rightarrow \frac{12}{100} \times \frac{3}{25}$; C.P. = ?

C.P.

S.P.

25.

 \rightarrow 56.81 \rightarrow £1420.4522 \rightarrow 12501 \rightarrow 56.81 \rightarrow ~ £1400 / £1450 A

(Q26)

P.V. 2? ;

C.P. \rightarrow 100S.P. \rightarrow 200S.P. \rightarrow 400

300

A

~~Q26, 27~~

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~~(Q27)~~

~~$20\% \times x + 24 = 490$~~

~~$\frac{1x}{5} + 24 = 490$~~

~~$x \left(\frac{1}{5} + 2 \right) = 490$~~

~~$x \left(\frac{11}{5} \right) = 490$~~

~~$11x = 490 \times 5$~~

~~$11x =$~~

P% = ?

$S = 2 \times \frac{1}{2}$

Let selling of an article

be,

$200 \rightarrow \frac{1}{2} \times 200$

$100 \times 1 = 100$

300%

A.

~~(Q27)~~

~~$2x(x + 20\% \times x) = 490$~~

~~5x~~

~~(Q27)~~

~~$2x(x + 20\% \times x) = 490$~~

~~$x + \frac{1}{5}x^2 = 245$~~

~~x~~

(Q28)

$20\% = \frac{1}{5}$

$\frac{250}{1250}$

C.P

5×250
1250

S.P

$4 \rightarrow 250$
 $1 \rightarrow 1000$
 $1 \rightarrow 250$
1000

$\frac{5}{100} \rightarrow 1 \rightarrow 50$
 $100 \rightarrow 20 \rightarrow 1000$

$\frac{250}{1000} \Rightarrow 250$

$250 + 50$
 \downarrow Loss
 \downarrow selling cost

2500

Total Loss

A.

ate

(20)

50x 1/3 10 21 50
40

50
75

50x 1/2 25 180
280
330

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(Q29)

I
100
S.P. 180

II
100

S.P. 150

{ Let total be 200 }

Total C.P. = 200
Total S.P. = 330

$\frac{130}{200} \times 100 = 65\%$

(Q29)

20% 2/5 x 50 = 20
50 - 10 = 40

I
50

S.P. 140

II
50

S.P. 75

{ Let total = 100 units }

50x 1/2 + 25x 1/2 50 + 25 = 75

Total C.P. = 100
Total S.P. = 115

$\frac{15}{100} \times 100 = 15\%$

* Doubt

(Q30)

Selling cost = 250

S.P. = 26000

(Q27)

Productivity
↓
Sum x

$$x \times 0.2x = 0.2x^2 \times 2 = 0.4x^2 \rightarrow 490$$

$$x^2 = \frac{490}{0.4}$$

$$x^2 = 1225$$

$$x = 35$$

~~(Q31) $S.P. \times \frac{1}{2} = C.P. \times \frac{1}{2}$~~
 ~~$\frac{1}{2} \times C.P. = \frac{1}{2} \times S.P.$~~
 ~~$C.P. = S.P.$~~
 ~~$\frac{1}{2} \times 100 = \frac{1}{2} \times 100$~~
 ~~$100 = 100$~~
~~A.~~

(Q32) Let C.P. of 1 article = ₹x
 " " 2 " = ₹2x

Profit = 2x

A.T.Q. $P = S.P. - C.P.$

$2x = S.P. - x$

$S.P. = 3x$

$P\% = \frac{P}{C.P.} \times 100$

$P\% = \frac{2x}{x} \times 100$

$P\% = 200\%$

A.

(Q32)

C.P. (old) 100, P = 500 \rightarrow 20% of C.P. 5 \rightarrow 2500
 C.P. (new) $80 \times 25 = 2000$
 C.P. (old) 100 \rightarrow 2500
 C.P. (new) 2000 \rightarrow 2500
 P = 500 \rightarrow 2500
 P = 500 \rightarrow 2500

A.T.Q. P is constant

New Profit = S.P. - New C.P.

New P = 3000 - 2000

New P = 1000

A.

(Q33)

old. C.P. $\rightarrow 100$

; [S.P. = Constant]

old P. $= 25\% = \frac{1}{4}$ New C.P. $\rightarrow 90$

C.P.

S.P.

$$\begin{array}{l} 100 \rightarrow 25 \\ 1 \rightarrow 25 \end{array}$$

$$5 \times 25 = 125$$
New Profit \rightarrow S.P. - ^{New} C.P.

$$\begin{aligned} \therefore \text{New P} &= 125 - 90 \\ \boxed{\text{New P} &= 35} \end{aligned}$$

$$\boxed{\text{New P\%} = \frac{\text{New P}}{\text{New C.P.}} \times 100\%}$$

$$\therefore \frac{35}{90} \times 100\%$$

$$\therefore \boxed{38.8\%} \quad \Delta$$

(Q34)

let C.P. be $= 2x$ initial Profit $= 50\%$ of x

$$= \frac{500}{100} \times x$$

$$\boxed{\text{I.P.} = 5x}$$

$$\therefore \text{I.S.P.} = \text{C.P.} + \text{I.P.}$$

$$\boxed{\text{I.S.P.} = 5x + 2x = 7x}$$

$$\therefore \text{New C.P.} = 2x$$

$$\text{New S.P.} = \frac{7x}{2} = 3.5x$$

$$\text{New Profit} = \text{S.P.} - \text{C.P.}$$

$$= 3.5x - 2x = 1.5x$$

$$\boxed{\text{New P\%} = \frac{\text{New P}}{\text{New C.P.}} \times 100\%} \quad \therefore \frac{1.5x}{2x} \times 100\% = 75\% \quad \Delta$$

(Q.35) C.P. 100
 $\frac{25}{100} \times 100 = 25\%$ A

(Q.36) $\frac{C.P.}{S.P.} \times 15 = C.P. \times 2$
 $\frac{C.P.}{S.P.} = \frac{15}{2} \Rightarrow S.P. = 17$
 $P\% = \frac{2}{15} \times 100\% = \frac{50}{3}\%$
 $\Rightarrow 13.33\%$ A

(Q.37) $40\% \times a = 50\% \times b$; $a : b$
 $\frac{2}{5} \times a = \frac{1}{2} \times b$
 $\Rightarrow 4a = 5b$
 $\Rightarrow \frac{a}{b} = \frac{5}{4} \Rightarrow a : b = 5 : 4$ A

(Q.38) M.P. = $5 \times D$; $S.P. = D?$

$S.P. = M.P. - D$

$\Rightarrow S.P. = 5D - D$

$S.P. = 4D$ A

(Q.39) $x = 20\% \times 12\% \times 120\%$ of 6250
 $x = \frac{1}{5} \times \frac{3}{25} \times \frac{6}{5} \times 6250 = 180$ A

$\frac{10}{100} \times \frac{10}{100} \times \frac{10}{100}$

(Q40) $C.P = 2500$; $M.P = ?$; $D = 35\%$; $P = 100\%$

$$S.P = C.P + 100\% \text{ of } C.P (P)$$

$$S.P = 2500 + \frac{100 \times 2500}{100}$$

$$S.P = 1000$$

$$S.P = M.P - D$$

$$S.P = M.P - (35\% \times M.P)$$

$$S.P = M.P \left(1 - \frac{35}{100} \right)$$

$$S.P = M.P \left(\frac{65}{100} \right)$$

$$M.P = \frac{S.P \times 100}{65}$$

$$M.P = \frac{1000 \times 100}{65}$$

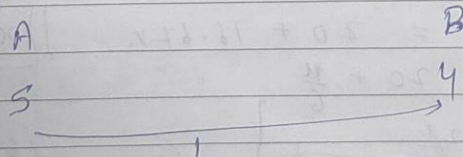
$$M.P = 1538.88$$

$$M.P = 1539$$

$$\frac{1000}{0.65} = M.P$$

$$M.P = 1538.88 \approx 1539$$

(Q41) $25\% = \frac{1}{4}$



$$\frac{1}{5} \times 100\% = 20\%$$

(Q42) $D = 2 \times C.P$ } $M.P = 10000$ } $\{ S.P = ? \}$ } $\left. \begin{array}{l} N.P \approx N.L \\ C.P = 18 \end{array} \right\}$

$S.P = M.P - D$

$\therefore S.P = M.P - 2 \times S.P$ { $C.P = 18$ }

$\therefore M.P = 3 \times S.P$

$\therefore \frac{10000}{3} = S.P$

$\therefore S.P = 3333.33$

(Q43)

C.P

$7 \times 900 = 6300$

S.P

$10 \rightarrow 9000$
 $1 \rightarrow 900$

$\frac{30}{100} \rightarrow \frac{3}{10}$

$D = 40\% \times S.P$

$M.P = 12600$, (C.P)

$\frac{2}{5} \times 10 \rightarrow \frac{4}{5}$

Let $S.P = x$

$D = 0.40 \times x$

$M.P = S.P + D$

$M.P = x + 0.40x$

$M.P = 1.40x$

$12600 \times 100 \Rightarrow x$
 140

$x = 29000$

(Q44)

$33.33\% \times x = 20 + 16.67\%$

$\therefore \frac{1}{3} \times x = 20 + \frac{x}{6}$

$\therefore \frac{x}{3} = \frac{120}{2} + \frac{x}{6}$
 $x = 120$

$\{ x \times 120\% = ? \}$

$\frac{120}{2} \times \frac{120}{5} = 1440$

(Q44)

$$33.33\% \text{ of } x = 20 + 16.67\% \times x$$

$$\therefore \frac{1}{3} \times x = 20 + \frac{1}{6} \times x$$

$$\therefore \frac{2}{6} \times x \Rightarrow 6 \times 20 + \frac{6 \times 1}{6} \times x$$

$$\therefore 2x = 120 + x$$

$$x \boxed{x = 120}$$

$$\therefore \frac{120 \times 120}{100} \Rightarrow \boxed{144} \text{ A}$$

(Q45)

$$20\% \times x = 20 + 20\% \times 20$$

$$\therefore \frac{x}{5} = 20 + \frac{1 \times 20}{5}$$

$$\frac{24}{120}$$

$$\therefore \frac{x}{5} = 24$$

$$\therefore \boxed{x = 120} \text{ A}$$

(Q46)

Let the no. is 100

$$2x \rightarrow 200$$

$$3x \rightarrow 600$$

$$x2 \rightarrow 1200$$

$$2x \rightarrow 3600$$

Final change!

$$3600 - 100 \Rightarrow \boxed{3500\%} \text{ A}$$

(Q47)

$$65\% \times x = 234$$

$$\frac{13}{65} \times 100 = 20$$

(Q47)

let the reduction be x

$$234 - x = 65\% \text{ of } 234$$

$$\therefore 234 - x = \frac{13}{20} \times 234$$

$$\therefore x = 234 - 152.1$$

$$\boxed{x = 81.9}$$

(Q48)

90% of 900% of 9000% of 9

$$\therefore \frac{90}{100} \times \frac{900}{100} \times \frac{9000}{100} \times 9$$

$$\therefore 9^4 \times \boxed{6561}$$

(Q49)

25

S.G.

$$13 \times 4 = 52$$

Rest

$$12 \rightarrow 24\% \\ = \frac{12}{48}$$

let, total expense old = 100 units.

for 25 employees & $\frac{100}{25} = 4$ units.

(Avg salary)

Rest $\rightarrow 24\%$ salary \uparrow

$$\therefore 48 + 24\% \times 48$$

$$\therefore 48 + \frac{24}{100} \times 48$$

$$\therefore 48 + 11.52 = \boxed{59.52 \text{ units}}$$

$$\% \text{ change} = \frac{\text{old salary} - \text{New salary}}{\text{old salary}} \times 100$$

$$\therefore \% = \frac{100 - 59.52}{100} \times 100 = \boxed{40.48\% \downarrow}$$

(Q50) T.C.P = ₹3500 ; 12.15%

$$\frac{183}{160} \times \frac{175}{200}$$

$$\frac{15}{100} \times 3500 = ₹525$$

(Q30) C.P = 6000

50 = $\frac{100}{110} \times 2$

500

$$L = \frac{50 \times 100}{110} = \frac{5000}{11}$$

$$2\% = \frac{500/11}{6000} \times 100$$

$$\Rightarrow \frac{500}{66} = 7.5\%$$