

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

Ans:

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

Ans: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

d) ₹2100

Ans:2045

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

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
- b) ₹510
- c) ₹520
- d) ₹530

Ans: 471.58

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
- 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
- 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

Ans :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

Handwritten calculation on lined paper:

$$\text{Loss \%} = \frac{\text{Loss}}{\text{Cost Price}} \times 100$$
$$450 = \frac{75}{100} \times \text{CP}$$
$$\text{CP} = \frac{450 \times 100}{75}$$
$$\text{CP} = 600$$

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2)

$$1440 - 1200$$
$$240$$

$$\frac{240}{1200} \times 100$$

$$\text{Profit} = 20\%$$

3)

$$960 - 800$$
$$= 160$$

$$\frac{160}{800} \times 100$$

$$\text{Profit} = 20\%$$

4

$$1200 = \frac{90}{100} \times CP$$

$$CP = \frac{1200 \times 100}{90}$$

$$CP = 1500$$

5

$$480 - 400$$

$$80$$

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

$$\text{profit} = 20\%$$

6)

$$\text{Successive discount} = \frac{x + y + \frac{xy}{100}}{100}$$

$$= \frac{20 + 10 + \frac{20 \times 10}{100}}{100}$$

$$= \frac{30 + \frac{200}{100}}{100}$$

$$= \frac{30 + 2}{100}$$

$$= \frac{32}{100} = 32\%$$

10)

$$200 - 150 = 50$$

$$\frac{50}{150} \times 100$$

$$\text{profit} = 33.33\%$$

14

$$15000 = \frac{90}{100} \times \text{CP}$$

$$\text{CP} = \frac{15000 \times 100}{90}$$

$$= 16666.6$$

$$\text{CP} \approx 16500$$

17

$$576 - 480$$

$$96$$

$$\frac{576}{480} = \frac{6}{5}$$

$$\frac{96}{480} \times 100$$

$$\text{profit} = \frac{96}{48} =$$

$$= 20\%$$

19

$$\text{profit percentage} = \frac{SP - CP}{CP} \times 100$$

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

$$15CP = (2300 - CP) \times 100$$

$$15CP = 230000 - 100CP$$

$$15CP + 100CP = 230000$$

$$115CP = 230000$$

$$CP = \frac{230000}{115}$$

$$CP = 2000$$

20

$$900 - 750$$

$$150$$

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

$$= \frac{1500}{75}$$

$$= 20\%$$

21

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

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

$$CP = 800$$

22

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

$$20CP = (9600 - CP) \times 100$$

$$20CP = 960000 - 100CP$$

$$20CP + 100CP = 960000$$

$$120CP =$$

$$120CP = 960000$$

$$CP = \frac{960000}{120}$$

$$120$$

$$CP = 8000$$

23

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

$$20CP = (500 - CP) \times 100$$

$$20CP = 50000 - 100CP$$

$$20CP + 100CP = 50000$$

$$120CP = 50000$$

$$CP = \frac{50000}{120}$$

$$120$$

$$CP = 416.6$$

$$CP \approx 420$$

25

$$1250 = \frac{88}{100} \times CP$$

$$CP = \frac{1250 \times 100}{88}$$

$$88$$

$$CP = \frac{125000}{88} = 1420.4 \approx 1450$$

$$88$$

48

9000% of 9

$$\frac{9000}{100} \times 9$$

$$= 810$$

900% of 810

$$\frac{900}{100} \times 810$$

$$= 7290$$

90% of 7290

$$\frac{90}{100} \times 7290$$

$$= 6561$$

39

 $x = 20\%$ of 12% of 120% of 6250

$$= \frac{120}{100} \times 6250$$

$$= 7500$$

 12% of 7500

$$\frac{12}{100} \times 7500$$

$$= 900$$

 20% of 900

$$\frac{20}{100} \times 900$$

$$x = 180$$

$$CP =$$

13

$$SP = \left(1 + \frac{25}{100}\right) \times 800$$

$$SP = \frac{125}{100} \times 800$$

$$SP = \frac{5}{4} \times 800$$

$$SP = 1000$$

15

$$MP = CP + 50\% \text{ of } CP = 100 + 50 = 150$$

$$SP = MP - 20\% \text{ of } MP$$

$$SP = 150 - \left(\frac{20}{100} \times 150\right)$$

$$SP = 150 - 30 = 120$$

$$\begin{aligned} \text{Profit} &= SP - CP \\ &= 120 - 100 \\ &= 20 \end{aligned}$$

$$\begin{aligned} \text{Profit \%} &= \frac{20}{100} \times 100 \\ &= 20\% \end{aligned}$$

35

$$\text{Consumption} = \frac{100}{125} \times 100$$

$$= 80$$

20% decrease

36

$$\frac{2}{15} \times 100 = 13.33\%$$

40

$$MP = \frac{100 \times 500}{(100 - 35)} \times 2$$

$$= 1593$$

41

$$\frac{25}{125} \times 100 = 20\%$$

42

$$SP = MP - 2CP$$

$$= 10000 - 6666.67$$

$$= 3333.33$$

48

$$33.33\% \times 20 = 1666.67 + 20$$

$$\Rightarrow 20 = 120$$

$$\frac{126\%}{144} \times 120$$

46

$$(2 \times 3)^2 = 36 \text{ increase} = 3500\%$$

50

$$\text{discount} = \frac{15}{100} \times 3500$$

$$= 0.15 \times 3500$$

$$= 525$$

$$= \frac{22500p}{11p}$$

$$= 2$$

$$12 \quad 2250 = \left(1 + \frac{10}{100}\right) \times CP$$

$$2250 = \frac{110}{100} \times CP$$

$$2250 = \frac{11}{10} CP$$

$$CP = \frac{2250 \times 10}{11}$$

$$CP = \frac{22500}{11}$$

$$CP = \cancel{2000} 2045.45$$

SHUBHAM

$$13) \quad 10\% = \frac{(800 - CP)}{CP} \times 100$$

26

	1	100	} $400 - 100 = 300$
SP	$\frac{1}{2}$	200	
SP	1	400	

$$\text{profit} = 300\%$$

7)

$$100 - 20 = 80\%$$

$$80\% \text{ of } x = 800$$

$$\frac{80}{100} \times x = 800$$

$$\frac{4}{5} x = 800$$

$$x = 800 \times \frac{5}{4}$$

$$x = 1000$$

$$\text{marked price} = 1000$$

8

$$25 = \frac{1800 - CP}{CP} \times 100$$

$$25CP = (1800 - CP) \times 100$$

$$25CP = 180000 - 100CP$$

$$25CP + 100CP = 180000$$

$$125CP = 180000$$

$$CP = \frac{180000}{125}$$

$$CP = 1440$$

9

$$\frac{10}{1000} \times 1500 = 150$$

$$SP = 1500 - 150 = 1350$$

$$SP = 1350$$

26

SP	1	100	} 400 - 100 = 300
	$\frac{1}{2}$	200	
SP	1	400	

profit = 300 %

30

$$CP = 6000$$

$$SO = \frac{110}{100} L$$

$$L = \frac{SO \times 100}{110} = \frac{500}{11}$$

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

$$= \frac{50}{66}$$

$$= 0.75$$

18

$$\frac{50}{500} \times 100$$

$$\text{profit} = 10\%$$

SHUBHAM

(4)

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

31

$$SP = 2x + 2x = 3x$$

$$\frac{2x}{2x} \times 100$$

$$\text{Profit \%} = 200\%$$

32

$$\text{Profit} = \frac{20}{100} \times CP$$

$$500 = 0.2 \times CP$$

$$CP = \frac{500}{0.2} = 2500$$

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

$$= 2500 + 500$$

$$= 3000$$

$$CP = 2500 - (25\% \times 2500)$$

$$= 2500 - 500 = 2000$$

$$\text{Profit} = 3000 - 2000$$

$$= 1000$$

33

$$CP = \frac{SP}{1.25}$$

$$CP = \cancel{SP} \times 0.8 \times \frac{SP}{1.25}$$

$$CP = 38.8$$

34

$$CP = 2CP$$

$$SP \pm \frac{1}{2} SP$$

$$\text{Profit} = \frac{2}{2x} \times 100 = \frac{1}{2} \times 100 = 50\%$$

28

$$0.05 \times SP = 50$$

$$SP = \frac{50}{0.05} = 1000$$

$$SP = 0.8 \times CP$$

$$1000 = 0.8 \times CP$$

$$CP = \frac{1000}{0.8} = 1250$$

$$\text{Total cost} = 1250 + 50$$

$$= 1300$$

$$\text{Loss} = \text{Total cost} - SP$$

$$= 1300 - 1000$$

$$= 300$$

29

$$CP - 20\% \text{ of } CP$$

$$100 - 20$$

$$SP = 80$$

$$CP + 50\% \text{ of } CP = 100 + 50$$

$$SP = 150$$

$$150 + 80 = 230$$

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

$$= 230 - 200$$

$$= 30$$

$$\text{Profit \%} = \frac{30}{200} \times 100$$

$$= 15\%$$

30

$$50 = L + 0.1L$$

$$50 = 1.1L$$

$$L = \frac{50}{1.1} = 45.45$$

$$\frac{45.45}{6000} \times 100$$

$$0.007575 \times 100 = 7.58\%$$

28

$$0.05 \times SP = 50$$

$$SP = \frac{50}{0.05} = 1000$$

$$SP = 0.8 \times CP$$

$$1000 = 0.8 \times CP$$

$$CP = \frac{1000}{0.8} = 1250$$

$$\text{Total cost} = 1250 + 50$$

$$= 1300$$

$$\text{Loss} = \text{Total cost} - SP$$

$$= 1300 - 1000$$

$$= 300$$

29

$$CP = 20\% \text{ of } CP$$

$$100 - 20$$

$$SP = 80$$

$$CP + 50\% \text{ of } CP = 100 + 50$$

$$SP = 150$$

$$150 + 80 = 230$$

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

$$= 230 - 200$$

$$= 30$$

$$\text{Profit \%} = \frac{30}{200} \times 100$$

$$= 15\%$$

30

$$50 = L + 0.1L$$

$$50 = 1.1L$$

$$L = \frac{50}{1.1} = 45.45$$

$$\frac{45.45}{6000} \times 100$$

$$0.007575 \times 100 = 7.58\%$$

16

$$SP = 400 + \left(\frac{12}{100} \times 400 \right)$$

$$SP = 400 + 48$$

$$SP = 448$$

$$SP = 95\% \times MP$$

$$448 = \frac{95}{100} MP$$

$$MP = \frac{448 \times 100}{95}$$

$$MP = \frac{44800}{95} = 471.58$$

24

$$SP_1 = 1500 + \frac{20}{100} \times 1500$$

$$= 1500 + 300$$

$$SP_1 = 1800$$

$$SP_2 = 1500 - \frac{10}{100} \times 1500$$

$$= 1500 - 150$$

$$= 1350$$

$$CP = 1500 + 1500$$

$$= 3000$$

$$SP = 1800 + 1350$$

$$= 3150$$

$$\text{Net profit} = SP - CP$$

$$= 3150 - 3000 = 150$$

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

$$= 5\%$$