Profit and Loss

Model 1: Basic Profit/Loss

1. An Umbrella was sold at a profit of 20%. What is the selling price of the Umbrella, if its cost price is ₹ 180?

    1) ₹ 216   2) ₹ 200   3) ₹ 160   4) ₹ 36   5) None of these

2. A person sold an article for ₹ 20 and earned a profit of 25%. What is the cost price of the article?

    1) ₹ 16   2) ₹ 14   3) ₹ 12   4) ₹ 18   5) None of these

3. An article was sold for ₹ 13,000 at a loss of 35%. What is the cost price of the article?

    1) ₹ 16,000   2) ₹ 13,700   3) ₹ 15,000   4) ₹ 20,000   5) None of these

4. Harshad bought 15 DVD players at ₹ 4,500 each and sold all of them at the total price of ₹ 81,000. What is the percent profit earned in the deal?

    1) 16   2) 20   3) 25   4) 20.5   5) None of these

5. A shopkeeper sells 200 m of cloth for ₹ 9,000 at a profit of ₹ 5 per m. What is the cost price of 1 m of cloth?

    1) ₹ 45   2) ₹ 40   3) ₹ 35   4) ₹ 30   5) None of these

6. Naresh purchased a TV set for ₹ 11,250 after getting a discount of 10% on the labeled price. He spent ₹ 150 on transport and ₹ 800 on installation. At what price should it be sold so that the profit earned would be 15%?

    1) ₹ 12,937.50   2) ₹ 14,030   3) ₹ 13,450   4) ₹ 15,467.50   5) None of these

7. Manoj sold an article for ₹ 15,000. Had he offered a discount of 10% on the selling price, he would have earned a profit of 8%? What is the cost price?

    1) ₹ 12,500   2) ₹ 13,500   3) ₹ 12,250   4) ₹ 13,250   5) None of these

8. If Ramu buys books at 11 books for ₹ 10 and sells at 10 books for ₹ 12, then what will be his gain percent?

    1) 11%   2) 22%   3) 32%   4) 15%   5) None of these

Model 2: SP/CP with Respect to Two Different Profit/Loss Percentages

9. A watch was sold at a loss of 9%. It was observed that if the selling price was ₹ 420 more, the profit made would have been 5%. What is the actual selling price of the watch?

    1) ₹ 2700   2) ₹ 2730   3) ₹ 3270   4) ₹ 3000   5) None of these

10. After selling a book, Rohan found that he had made a loss of 12%. He also found that had he sold it for ₹ 36 more, he would have made a profit of 6%. What was the initial loss?

    1) ₹ 12   2) ₹ 18   3) ₹ 20

    4) Data inadequate   5) None of these

11. Praveen sold an article for ₹ 1170 at a profit of 30%. What should be the selling price if the desired profit is 40%?

    1) ₹ 1330   2) ₹ 990   3) ₹ 1287   4) ₹ 1260   5) None of these

12. Sameer sold an article ₹ 460 and earned a profit of 15%. At what price should it have been sold so as to earn a profit of 20%?

    1) ₹ 465   2) ₹ 480   3) ₹ 498   4) ₹ 485   5) None of these

Model 3: CP Based on Profit and Loss Relationship

13. The profit earned by selling a phone for ₹ 18,000 is the same as the loss incurred by selling it for ₹ 16,800. What is the cost price of the phone?

    1) ₹ 17,400   2) ₹ 17,000   3) ₹ 17,500   4) ₹ 17,600   5) None of these

14. The profit earned by selling an article for ₹ 625 is the same as the loss incurred by selling the article for ₹ 435. What is the cost price of the article?

    1) ₹ 530   2) ₹ 520   3) ₹ 540   4) ₹ 550   5) None of these

15. The profit earned by selling an article for ₹ 536 is the same as the loss incurred after the article for ₹ 426. What is the cost price of the article?

    1) ₹ 448   2) ₹ 470   3) ₹ 481   4) ₹ 500   5) None of these

16. The profit earned by selling a shirt for ₹ 1200 is twice the loss incurred when the shirt is sold for ₹ 600. What is the cost price of the shirt?

    1) ₹ 800   2) ₹ 1000   3) ₹ 900   4) ₹ 750   5) None of these

17. The profit earned by selling a wrist watch for ₹ 5800 is twice the loss incurred after selling the wrist watch for ₹ 4300. What is the cost price of the wrist watch?

    1) ₹ 5300   2) ₹ 5100   3) ₹ 4900   4) ₹ 4800   5) None of these

18. The profit earned by selling an article for ₹ 4080 is half the loss incurred after selling the same article for ₹ 3660. What is the cost price of the article?

    1) ₹ 3785   2) ₹ 3800   3) ₹ 3775   4) ₹ 3940   5) None of these

Model 4: Profit/Loss Percentage Based on Quantity Sold

19. Sridhar sold 16 pens at the cost of 20 pens. What is the profit or loss percentage made by him?

    1) 4% profit   2) 4% loss   3) 25% profit   4) 25% loss   5) Cannot be determined

20. Prem sold 10 pens at the cost of 12 similar pens. What % profit or loss does he make in this transaction?

    1) 20% profit   2) 25% profit   3) 16.66% loss

    4) 20% loss   5) None of these

21. Aniruddh sold 21 books at the cost price of 18 books. Find the percentage profit or loss in this transaction?

    1) 14.28% profit   2) 14.28% loss   3) 16.66% profit

    4) 16.66% loss   5) None of these

22. Ajit sold 20 apples at the cost price of 16 apples. What profit/loss does he make?

    1) ₹ 10   2) Cannot be determined   3) ₹ 5

    4) ₹ 6   5) None of these

Model 5: Overall Profit/Loss Percentage When S1 = S2 and %P = %L

23. A shopkeeper bought two ceiling fans for ₹ 800 each. He sold one fan at a profit of 12% and the other at a loss of 12%. What would be his overall profit or loss in the transaction?

    1) No Profit No loss   2) Loss 1.44%   3) Profit 1.44%

    4) Loss 4%   5) None of these

24. A person bought two articles for the same price and sold them at a profit of 10% on one and a loss of 10% on the other. What is the overall profit or loss % made by him?

    1) 1% Loss   2) 1% Profit   3) Profit 4%

    4) No Profit No loss   5) None of these

25. A person sold two articles for ₹ 1200 each; he made a profit of 20% and a loss of 20% on the other. What will be the overall profit or loss in percentage?

    1) No Profit No loss   2) Cannot be determined   3) Profit 4%

    4) Loss 4%   5) None of these

26. If a person sold two articles at the same price and realized 10% profit on one and 10% loss on the other article. What net profit/loss % does he make?

    1) No Profit No loss   2) Loss 1%   3) Profit 1%

    4) Loss 10%   5) None of these

Model 6: Effective Percentage Problem

27. A sold an article to B at a profit of 20% and B sold the same article to C at a profit of 10%. If C bought it for ₹ 2640, how much did A pay for it?

    1) ₹ 2000   2) ₹ 1500   3) ₹ 1600   4) ₹ 1540   5) None of these

28. Prathik sold a music system to Karthik at 20% gain and Karthik sold it to Swasthik at 40% gain. If Swasthik paid ₹ 10,500 for the music system, what amount did Prathik pay for the same?

    1) ₹ 8,240   2) ₹ 7,500   3) ₹ 6,250

    4) Cannot be determined   5) None of these

29. Prakash sold an article to Prem at 10% profit. Prem sold the same to Raj at 10% loss. If Prakash bought the article at ₹ 2000, at what price did Raj buy the same?

    1) ₹ 2,000   2) ₹ 1,980   3) ₹ 2,500   4) ₹ 1,800   5) None of these

Model 7: Dishonest Dealer Problem

30. A dishonest dealer claims to sell his goods at the cost price but uses a weight of 800 gm instead of 1 kg. What will be the profit percentage in this transaction?

    1) 15%   2) 20%   3) 25%   4) 32%   5) None of these

31. A milkman sells milk at the cost price but delivers only 1800 ml instead of 2 litrs. What will be the profit percentage made by the milkman?

    1) 15%   2) 11.11%   3) 20%   4) 25%   5) None of these

Model 8: Marked Price and Discount

32. An article was sold for ₹ 480 after a discount of 20%. What is the marked price?

    1) ₹ 400   2) ₹ 576   3) ₹ 600

    4) Cannot be determined   5) None of these

33. If the selling price of ₹ 24 results in a 20% discount on the list price, then what selling price would result in a 30% discount on list price?

    1) ₹ 21   2) ₹ 24   3) ₹ 18   4) ₹ 15   5) None of these

34. In a sale, a perfume is available at a discount of 15% on the selling price. If the perfume's discounted selling price is ₹ 3740, what was the original selling price of the perfume?

    1) ₹ 4,324   2) ₹ 4,386   3) ₹ 4,400   4) ₹ 4,294   5) None of these

35. A shopkeeper marks his goods in such a way that even after allowing a discount of 20%, he makes a profit of 12%. How much percent above the cost price is the marked price?

1) 32%   2) 8%   3) 12%   4) 40%   5) None of theses

36. A shopkeeper marks his goods in such a way that after allowing a discount of 10%, he gains 17%. How much percent above C.P. is the marked price?

1) 50%   2) 30%   3) 27%   4) 7%   5) None of theses

37. At what price should a shopkeeper mark a radio that cost him ₹ 1200 in order that he may offer a discount of 20% on the marked price and still make a profit of 25%?

1) ₹ 1675   2) ₹ 1875   3) ₹ 1900   4) ₹ 2025   5) None of these

38. Sanjay bought a microwave oven and paid 10% less than the original price. He sold it with 30% profit on the price he had paid. What percentage of profit did Sanjay earn on the original price?

1) 17%   2) 20%   3) 27 %   4) 32%   5) None of these

Answers

1 - 1	2 - 1	3 - 4	4 - 2	5 - 2	6 - 2	7 - 1	8 - 3	9 - 2	10 - 5
11 - 4	12 - 2	13 - 1	14 - 1	15 - 3	16 - 1	17 - 4	18 - 4	19 - 3	20 - 1
21 - 2	22 - 2	23 - 1	24 - 4	25 - 4	26 - 2	27 - 1	28 - 3	29 - 2	30 - 3
31 - 2	32 - 3	33 - 1	34 - 3	35 - 4	36 - 2	37 - 2	38 - 1		

Additional Examples

1. A man bought oranges at the rate of 8 for ₹ 34 and sold them at the rate of 12 for ₹ 57. How many oranges should be sold to earn a net profit of ₹ 45?

   a) 90   b) 100   c) 135   d) 150

2. A man sells two articles for ₹ 5000 each neither losing nor gaining in the deal. If he sold one of them at a gain of 25%, the other article is sold at a loss of

   a) $15\frac{2}{3}$%   b) $16\frac{2}{3}$%   c) $17\frac{1}{3}$%   d) $18\frac{1}{3}$%

3. By selling an article for ₹ 144, a person gained such that the percentage gain equals the cost price of the article. The cost price of the article is

   a) ₹ 90   b) ₹ 80   c) ₹ 75   d) ₹ 60

4. By selling an article, a man makes a profit of 25% of its selling price. His profit per cent is

   a) 20   b) 25   c) $16\frac{2}{3}$ d) $33\frac{1}{3}$

5. Which of the following successive discounts is better to a customer

   a) 20%, 15%, 10% or   b) 25%, 12%, 8%, ?

   a) a is better   b) b is better   c) a or b (both are same)   d) None of these

6. The list price of an article is ₹ 160 and a customer buys it for ₹ 122.40 after two successive discounts. If the first discount is 10%, then second discount is –

   a) 12%   b) 10%   c) 14%   d) 15%

7. A dealer offered a machine for sale for ₹27,500 but even if he had charged 10% less, he would have made a profit of 10%. The actual cost of the machine is_

   a) ₹22,000   b) ₹24,250   c) ₹22,500   d) ₹22,275

8. A shopkeeper marks his good 20% above his cost price and gives 15% discount on the marked price. His gain per cent is –

   a) 5%   b) 4%   c) 2%   d) 1%

9. The cost price of an article is 64% of the marked price. The gain percentage after allowing a discount of 12% on the marked price is

   a) 37.5%   b) 48%   c) 50.5%   d) 52%

10. A man bought an article listed at ₹ 1500 with a discount of 20% offered on the list price. What additional discount must be offered to the man to bring the net price to ₹ 1104?

    a) 8%   b) 10%   c) 12%   d) 15%

11. A man sold 20 apples for ₹ 100 and gained 20%. How many apples did he but for ₹ 100?

    a) 20   b) 22   c) 24   d) 25

12. For every set of 19 kites sold, a vendor gives 1 kite extra, free of cost. In order to give a discount of 10%, the number of extra kites he should give in a sale of 27 kites to the nearest integer is

    a) 3   b) 6   c) 7   d) 8

13. A ruby stone was bought for ₹ 1600 at Jaipur. A sum of ₹ 2400 was spent on making a ring with the ruby stone. It was advertised for sale at Bombay for ₹ 7800. If a discount of 10% was given, then the % profit made was

    a) 55%   b) 68.5%   c) 75.5%   d) 80%

14. A shopkeeper buys an article for ₹ 450. He marks it at 20% above the cost price. Find the percentage discount given by him if he sells the article for ₹ 496.80.

    a) 8%   b) 9%   c) 10%   d) 12%

15. A person bought 76 cows and sold 20 cows at 15% profit, 40 cows at 19% profit and remaining 16 cows at 25% profit and got a profit of ₹ 6570 as a whole. The cost price of each cow is

    a) ₹ 450   b) ₹ 425   c) ₹ 420   d) ₹ 400

16. A man buys 3 cows and 8 goats in ₹ 47,200. Instead if he would have bought 8 cows and 3 goats, he had to pay ₹ 53,000 more. Cost of one cow is

    a) ₹ 11,000   b) ₹ 12,000   c) ₹ 13,000   d) ₹ 10,000

17. A shopkeeper marks the price of an article at ₹ 80. What will be the selling price, if he allows two successive discounts at 5% each?

    a) ₹ 72.2   b) ₹ 7.2   c) ₹ 85   d) ₹ 7.2

18. On selling an article for ₹ 170, a shopkeeper loses 15%. In order to gain 20%, he must sell that article at rupees

    a) 215.50   b) 212.50   c) 240   d) 210

19. The marked price of a product is ₹ 1600. The shopkeeper gives successive discounts of 10% and x% to the customer. If the customer pays ₹ 1224 for the product, find the value of x.

    a) 10%   b) 12%   c) 15%   d) 8%

20. A man makes a profit of 20% on the sale by selling 20 articles for ₹1. The number of article he bought by ₹ 1 is_

    a) 20   b) 24   c) 25   d) 30

21. An article is sold for ₹ 300 at a profit of 20%. Had it been sold for ₹ 235, the loss percentage would have been

    a) 16   b) 3   c) 5   d) 6

22. A dozen pairs of socks quoted at ₹ 180 are available at discount of 20%. How many pairs of socks can be bought for ₹ 48?

    a) 3 pairs   b) 4 pairs   c) 2 pairs   d) 5 pairs

23. The marked price of a table is ₹ 12,000. If it was sold for ₹ 10,500 after allowing a certain discount, then the rate of discount is

    a) 17.5%   b) 10%   c) 12.5%   d) 15%

24. The marked price of a radio set is ₹ 480. The shopkeeper allows a discount of 10% and gains 8%. If no discount is allowed, his gain percent would be

    a) 25%   b) 18%   c) 18.5%   d) 20%

25. A tradesman sold an article at a loss of 20%. If the selling price had been increased by ₹ 100, then would have been a gain of 5%. The cost price of the article (in ₹) was

    a) 100   b) 200   c) 400   d) 500

26. The price of an article is first decreased by 20% and then increased by 30%. If the resulting price is ₹ 416, the original price of the article is –

    a) ₹ 350   b) ₹ 405   c) ₹ 400   d) ₹ 450

27. The total cost of 8 buckets and 5 mugs is ₹ 92 and the total cost of 5 buckets and 8 mugs is ₹ 77. Find the cost of 2 mugs and 3 buckets.

    a) ₹ 35   b) ₹ 70   c) ₹ 30   d) ₹ 38

28. A shopkeeper earns a profit of 12% on selling a book at 10% discount on printed price. The ratio of the cost price to printed price of the book is –

a) 45:56   b) 50:61   c) 90:97   d) 99:125

29. The cost of an apple is twice that of a banana and the cost of a banana is 25% less than that of a guava. If the cost of each type of fruit increases by 10%, then the percentage increase in cost of 4 bananas, 2 apples and 3 guavas is

a) 10%   b) 12%   c) 16%   d) 18%

30. A shopkeeper allows 23% commission on his advertised price and still makes a profit of 10%. If he gains ₹ 56 on one item, his advertised price of the item, in ₹, is

a) 820   b) 780   c) 790   d) 800

31. The single discount equal to three consecutive discounts of 10%, 12% and 15% is

a) 26.27%   b) 24.76%   c) 9%   d) 11%

32. If the cost price of 10 articles is equal to the selling price of 8 articles, then gain per cent is

a) 10%   b) 8%   c) 50%   d) 25%

33. An article is marked 40% above the cost price and a discount of 30% is allowed. What is the gain or loss percentage?

a) 10% gain   b) 5%gain   c) 2% loss   d) 12% gain

34. A shopkeeper allows a discount of 10% to his customers and still gains 20%. Find the marked price of the article which costs ₹ 450.

a) ₹ 600   b) ₹ 540   c) ₹ 660   d) ₹ 580

35. What single discount is equivalent to two successive discounts of 20% and 15%?

    a) 35%   b) 32%   c) 34%   d) 30%

36. The cost price of an article is 40% of the selling price. What per cent of the cost price is the selling price?

    a) 140%   b) 200%   c) 220%   d) 250%

37. If the selling price of 10 articles is equal to the cost price of 11 articles, then the gain per cent is

    a) 10   b) 11   c) 15   d) 25

38. While selling a watch, a shopkeeper gives a discount of 5%. If he gives a discount of 6%, he earns ₹ 15 less as profit. What is the marked price of the watch?

    a) ₹ 1,250   b) ₹ 1,400   c) ₹ 1,500   d) ₹ 750

39. Krishna purchased a number of articles at ₹ 10 for each and the same number for ₹ 14 each. He mixed them together and sold them for ₹ 13 each. Then his gain or less per cent is

    a) Loss $8\frac{1}{3}$%   b) Gain $8\frac{2}{3}$%   c) Loss $8\frac{2}{3}$%   d) Gain $8\frac{1}{3}$%

40. A trader bought two horses for ₹ 19,500. He sold one at a loss of 20% and the other at a profit of 15%. If the selling price of each horse is the same, then their cost prices are respectively

    a) ₹ 10,000 and ₹ 9,500   b) ₹ 11,500 and ₹ 8,000

    c) ₹ 12,000 and ₹ 7,500   d) ₹ 10,500 and ₹ 9,000

41. Marked price of an article is ₹ 275. Shopkeeper allows a discount of 5% and he gets a profit of 4.5%. The actual cost of the article is

    a) 250   b) 225   c) 215   d) 210

42. The difference between a discount of 40% on ₹ 500 and two successive discounts of 36%, 4% on the same amount is

a) ₹ 0   b) ₹ 2   c) ₹ 1.93   d) ₹ 7.20

43. If the cost price of 15 articles is equal to the selling price of 12 articles, find gain %.

a) 20   b) 25   c) 18   d) 21

44. A man purchased some eggs at 3 for ₹ 5 and sold them at 5 for ₹ 12. Thus he gained ₹ 143 in all. The number of eggs he bought is

a) 210   b) 200   c) 195   d) 190

45. X sells two articles for ₹ 4,000 each with no loss and no gain in the interaction. If one was sold at a gain of 25% the other is sold at a loss of

a) 25%   b) $18\frac{2}{9}$%   c) $16\frac{2}{3}$%   d) 20%

46. 20% loss on selling price is what per cent loss on the cost price?

a) 25%   b) 15%   c) $16\frac{2}{3}$%   d) $16\frac{1}{3}$%

47. The cost price of an article is ₹ 800. After allowing a discount of 10%, a gain of 12.5% was made. Then the marked price of the article is

a) ₹ 1,000   b) ₹ 1,100   c) ₹ 1,200   d) ₹ 1,300

48. The selling price of 10 oranges is the cost price of 13 oranges. Then the profit percentage is

a) 30%   b) 10%   c) 13%   d) 3%

49. The marked price of a radio is ₹ 480. The shopkeeper allows a discount of 10% and gains 8%. If no discount is allowed, his gain per cent would be

a) 18%   b) 18.5%   c) 20.5%   d) 20%

50. A manufacturer marked an article at ₹ 50 and sold it allowing 20% discount. If his profit was 25%, then the cost price of the article was

    a) ₹ 40   b) ₹ 35   c) ₹ 32   d) ₹ 30

51. A shopkeeper earns a profit of 12% on selling a book at 10% discount on the printed price. The ratio of the cost price and the printed price of the book is

    a) 45 : 56   b) 45 : 51   c) 47 : 56   d) 47 : 51

52. By selling a bicycle of ₹ 2,850, shopkeeper gains 14%. If the profit is reduced to 8%, then the selling price will be

    a) ₹ 2,600   b) ₹ 2,700   c) ₹ 2,800   d) ₹ 3,000

53. A Fruit seller buys some oranges at the rate of 4 for ₹ 10. He sells the whole lot at 9 for ₹ 20. What is his loss or gain percent?

    a) Loss percent $1\frac{19}{81}$ %   b) Gain percent $1\frac{19}{81}$%

    c) No loss or no Profit   d) Loss percent 2%

54. A retailer purchased radio sets at the rate of ₹ 400 each from a wholesaler. He raised the price by 30% and then allowed a discount of 8% on each set. His profit will be

    a) 19%   b) 78.4%   c) 22%   d) 19.6%

55. The cost of manufacture of an article was ₹ 900. The trader wants to gain 25% after giving a discount of 10%. The marked price should be

    a) ₹ 1000   b) ₹ 1500   c) ₹ 1250   d) ₹ 1200

56. A grain dealer cheats to the extent of 10% while buying as well as selling by using false weights. His total Profit percentage is

    a) 21   b) 23   c) 25   d) 20

57. When the price of sugar decreases by 10%, a man could buy 1 kg more for ₹ 270. Then, the original price of sugar per kg is

    a) ₹ 25   b) ₹ 30   c) ₹ 27   d) ₹ 32

58. A person brought two bicycles for ₹ 1600 and sold the first at 10% profit and the second at 20% profit. If he sold the first at 20% profit and the second at 10% profit, he would get ₹ 5 more. The difference in the cost price of the two bicycles was

    a) ₹ 25   b) ₹ 75   c) ₹ 50   d) ₹ 40

Answers

1 – a	2 - b	3 - b	4 - d	5 - b	6 - d	7 - c	8 - c	9 - a	10 - a
11 - c	12 - a	13 - c	14 - a	15 - a	16 - b	17 - a	18 - c	19 - c	20 - b
21 - d	22 - b	23 - c	24 – d	25 - c	26 - c	27 - a	28 - a	29 - a	30 – d
31 - b	32 - d	33 - c	34 - a	35 - b	36 - d	37 - a	38 - c	39 - d	40 - b
41 - a	42 - d	43 - b	44 - c	45 - c	46 - c	47 - a	48 - a	49 - d	50 – c
51 - a	52 - b	53 - a	54 - d	55 - c	56 - a	57 - b	58 - c		