



# DEFENCE MANIA

## EDUTECH PVT. LTD

### Profit & Loss

1. Anurag loses  $\frac{1}{7}$  of the purchase price by selling a pen for Rs. 144. If the pen is sold for Rs. 189, what will be the profit percentage?  
(A) 11% (B) 12.5%  
(C) 11.5% (D) 14%
2. One person bought a dress in a cell and saved Rs 5. If he spends Rs. 45, then how much will he save?  
(A) 15 % (B) 30 %  
(C) 10 % (D) 18 %
3. If the cost price of 15 oranges is equal to the selling price of 20 oranges, the loss percentage is:  
(A) 30% (B) 75%  
(C) 25% (D) 40%
4. A man buys 5 pens for 1 rupee and sells 4 for 1 rupee. Find its profit percentage.  
(A) 25% (B) 40%  
(C) 50% (D) 20%
5. The selling price of an article with 16.5% profit was Rs. 466. If that item was sold for Rs. 330, what would be the percentage loss?  
(A) 17.25 (B) 17.75  
(C) 17 (D) 17.5
6. The cost price of two items is Rs. 200 and Rs. 600. A shopkeeper makes a profit of Rs. 300 by selling both. If the shopkeeper sold the first item at 30% profit, then at what profit does he sell the second item?  
(A) 50% (B) 30%  
(C) 20% (D) 40%
7. A man sold two bicycles at a total profit of 20%. If he bought them each for 3,500 and sold the first one at a profit of 5%, then how much profit (%) should he make from the second?  
(A) 20% (B) 35%  
(C) 25% (D) 30%
8. The carpenter incurs a loss of 10% by selling one footboard for Rs. 72. What percentage of profit or loss will he make on selling the footboard for Rs. 96?  
(A) profit, 10% (B) profit, 20%  
(C) loss, 16% (D) loss, 25%
9. The difference between a 13% loss and a 15% gain was Rs. 63. The cost price of the item in question is Rs .....  
(A) 225 (B) 207  
(C) 198 (D) 243
10. A discount of 10% and 14% on the selling price of a chair makes a difference of Rs. 27. Find the value of the chair.  
(A) 586 rs. (B) 440 rs.  
(C) 675 rs. (D) 880 rs.
11.  $\frac{2}{3}$  of the goods were sold at 6% profit and the remaining at 3% loss. If the total profit was Rs. 540, what was the total cost of the goods?  
(A) 17,000 rs. (B) 18,000 rs.  
(C) 16,500 rs. (D) 18,500 rs.
12. The difference between 18% loss and 17% profit is Rs. 63. The cost price of the article is ----- .  
(A) 189 rs. (B) 180 rs.  
(C) 175 rs. (D) 198 rs.
13. The difference of 33% loss and 7% profit on selling an item is Rs. 220. What is the cost price of the item?  
(A) 600 rs. (B) 525 rs.  
(C) 575 rs. (D) 550 rs.
14. spurti had sold the pair of shoes for Rs. 2,223 at a profit of 17%. What was the cost price of the pair of shoes?  
(A) 1,905 rs. (B) 1,870 rs.  
(C) 1,880 rs. (D) 1,900 rs.
15. Sharad bought 2 bags for Rs. 900. He sold one at 25% profit and the other at 25% loss. If the selling price of both bags is the same, then what is the cost price of both bags?  
(A) Respectively 437.5 rs. and 462.5 rs.  
(B) Respectively 330 rs. and 570 rs.  
(C) Respectively 347.5 rs. and 552.5 rs.  
(D) Respectively 337.5 rs. and 562.5 rs.
16. When a mobile is sold at 6% profit, it gets Rs. 870 more than when sold at 6% loss. What is the cost price of a mobile phone?  
(A) 6000 rs. (B) 7000 rs.  
(C) 6265 rs. (D) 7250 rs.

17. If an item is sold at 13% loss and 14% profit, the difference between the two values is Rs. 162. What is the cost price of the item?  
(A) 625 rs. (B) 620 rs.  
(C) 600 rs. (D) 640 rs.
18. An item sold at a loss of 12%. If it is sold at Rs. 49 higher price, then 2% profit is made. The cost price of the item is Rs. ....  
(A) 325 (B) 300  
(C) 375 (D) 350
19. A person buys two watches for Rs.. 480. He sells one watch at 15% loss and the other at 19% profit. He then realize that he has sold both the watches at the same price. Find the cost price of both the watches.  
(A) 280, 200 rs. (B) 270, 190 rs.  
(C) 285, 200 rs. (D) 280, 205 rs.
20. A toy bought for Rs. 925 was sold at a loss of 16%. What was the selling price of the toy.  
(A) 785 rs. (B) 777 rs.  
(C) 775 rs. (D) 787 rs.
21. An item purchased for Rs. 2275 was sold at a profit of 8%. What was the selling price of the item?  
(A) 2,093 rs. (B) 2,443 rs.  
(C) 2,457 rs. (D) 2,453 rs.
22. A toy was bought for Rs. 1125 and sold at a loss of 16%. The selling price of the toy was-  
(A) 960 rs. (B) 945 rs.  
(C) 955 rs. (D) 975 rs.
23. By selling an old phone for Rs. 6,360, Ranjita received 47% less than the cost of buying it a few years back. At what price should Ranjita sell it to get a profit of 13%?  
(A) 13,560 rs. (B) 10,550 rs.  
(C) 11,550 rs. (D) 12,550 rs.
24. If a person bought an item for Rs. 96 and sold it at a profit of 25%, then what was the selling price of that item?  
(A) 120 rs. (B) 125 rs.  
(C) 114 rs. (D) 115 rs.
25. Pawan sold an item at a loss of 12.5%. If he had sold the item for Rs. 56 more, he would have gained 22.5%. What should be the selling price of the item to get 25% profit?  
(A) 182 rs. (B) 190 rs.  
(C) 185 rs. (D) 200 rs.
26. A person bought an item for Rs. 1,975 and sold it at a profit of 12%. What was the selling price of the item?  
(A) 2,212 rs. (B) 2,192 rs.  
(C) 2,222 rs. (D) 2,202 rs.
27. On selling a jute bag for Rs. 48, Ashmita lost 20%. What should be the selling price of jute bags to earn a profit of 20%?  
(A) 72 rs. (B) 52 rs.  
(C) 56 rs. (D) 68 rs.
28. A computer company sells two brands of computers in a single day on which it gets a profit of Rs. 15,000. If the profit from one brand is 35% of the total profit, then what was the selling price of the computer of the other brand?  
(A) 8,750 rs. (B) 8,000 rs.  
(C) 9,750 rs. (D) 9,000 rs.
29. One person sold a tea set for Rs. 3,540, which was 41% below the cost price. To get a profit of 11%, the seller should have sold the set in a higher amount of Rs .....  
(A) 2,460 rs. (B) 1,812.60 rs.  
(C) 3,120 rs. (D) 2,664.42 rs.
30. A small scale business made a profit of Rs. 75,000 last year. This year, profit increased by 25%. What is the actual profit earned this year?  
(A) 87,750 rs. (B) 80,750 rs.  
(C) 90,750 rs. (D) 93,750 rs.
31. In 1 year the company sold Rs. 5,00,000. Year 3 increased by 35% compared to Year 1 and Year 3. What is the real benefit in year 3?  
(A) 2,50,000 rs. (B) 6,75,000 rs.  
(C) 6,00,000 rs. (D) 1,75,000 rs.
32. Bajaj Electronics sells two microwaves, each at the rate of Rs.4,800. On one, he gains 20% and on the other he loses 20%. What percentage of profit or loss did he make in the entire transaction?  
(A) 5% loss (B) 4 % profit  
(C) 5% profit (D) 4% loss
33. A seller buys a dozen pencils for Rs.25 and sells 5 pencils for Rs.12. Find the percentage of profit or loss?  
(A) 15% loss (B) 15.2% loss  
(C) 15.2% profit (D) 15% profit
34. A man bought 3 oranges for one rupee and bought 2 oranges for one rupee. At what price would he have sold each dozen to earn a profit of 20%?  
(A) 8 (B) 18  
(C) 10 (D) 6
35. By selling 12 watches, a shopkeeper makes a profit equal to the selling price of 2 watches. Find its profit in percentage.  
(A) 16.67% (B) 22%  
(C) 20% (D) 25%
36. A boy buys eggs at the rate of Rs.16 per 18 eggs and sells them at the rate of Rs.20 per 22 eggs. What is his profit/loss percentage?  
(A)  $\frac{23}{11}$  % profit (B)  $\frac{23}{11}$  % loss  
(C)  $\frac{25}{11}$  % profit (D)  $\frac{78}{11}$  % loss
37. A man bought some oranges at the rate of 3 fruits for one rupee and some more oranges at the rate of 2 fruits at one rupee. If number of both type of oranges are same then, at what price per dozen will he have to sell oranges to get 20% profit?  
(A) 5 rs. (B) 4 rs.  
(C) 10 rs. (D) 6 rs.

38. A weaver sells a sari to the shopkeeper at a price of Rs. 150 and gets 25% profit. The shopkeeper sells the same sari to a customer with 30% profit. If the weaver could sell the saree directly to the customer for Rs. 180, what would be his profit in% and the profit of the customer in rupees?  
 (A) 50%, 25 rs. (B) 60%, 20 rs.  
 (C) 50%, 15 rs. (D) 40%, 20 rs.
39. A shopkeeper sold two items, one at 25% profit and the other at 15% loss and got a profit of Rs. 35. If the value of goods sold at 25% profit is twice that of goods sold at 15% loss, find the sum of the cost price of both goods.  
 (A) 100 (B) 400  
 (C) 300 (D) 200
40. Rima buys a car for Rs.75,000. She spends Rs.10,000 on its repair. He later sold the car to Chiru at a profit of 15%. Cheeru sold it to Ritu at a 10% profit. How much did Ritu spend to buy the car?  
 (A) 1,02,575 (B) 1,05,752  
 (C) 1,02,252 (D) 1,07,525
41. A person buys a land for Rs. 3 lakh. He sells 25% of it at 25% loss and 40% at 25% profit. In order to earn a total of 15% profit, he will have to sell the remaining plot for how many rupees?  
 (A) 1,37,500 (B) 1,38,750  
 (C) 1,34,500 (D) 1,45,000
42. Kaveri bought a toy for Rs. 280 and sold it for Rs. 315. How much profit did he get?  
 (A) 17.5% (B) 12.5%  
 (C) 16% (D) 15.25%
43. Heeru bought the old car for Rs. 47000 and spent Rs. 3000 to repair it. If he sells the car for Rs. 58000, what will be his profit percentage?  
 (A) 18% (B) 16%  
 (C) 17% (D) 15%
44. Geeta bakes cakes for events. For the birthday party, she made a cake and sold it for Rs. 700. The cost of the material for making the cake was Rs. 350. What is the percentage of his profit margin?  
 (A) 200% (B) 50%  
 (C) 100% (D) 150%
45. Including a profit of 16%, Rishi sold a pair of shoes for Rs 2,059. What was the cost price of the shoes?  
 (A) 1,800 rs. (B) 1,760 rs.  
 (C) 1,780 rs. (D) 1,775 rs.
46. Jack sells a dress for Rs. 1440 and earns 20% profit. What will be the cost price of the dress?  
 (A) 1152 rs. (B) 1240 rs.  
 (C) 1200 rs. (D) 1180 rs.
47. By selling a transistor for Rs. 572, a shopkeeper gains an amount equal to 30% of the transistor's cost price. Find the cost price of the transistor.  
 (A) 400 rs. (B) 440 rs.  
 (C) 340 rs. (D) 420 rs.
48. A seller sells 12 chairs at 12% profit and 4 chairs at 3% loss. If his total profit is Rs. 1650, then what is the cost price of each chair?  
 (A) 1490 rs. (B) 1250 rs.  
 (C) 1100 rs. (D) 1380 rs.
49. An item was sold for Rs. 1235 at a loss of 5%. Find the selling price of the article at a profit of 10%.  
 (A) 1,335 rs. (B) 1,380 rs.  
 (C) 1,430 rs. (D) 1,300 rs.
50. K buys a car for 4.50 lakhs and spends Rs 1.25 lakhs on its accessories. He sells the car at a loss of 20%. Then find the selling price of the car?  
 (A) 4.00 lakh (B) 4.20 lakh  
 (C) 4.40 lakh (D) 4.60 lakh
51. Seller lost 22% by selling a set of books for Rs. 1,755. What should be their selling price to earn 6% profit?  
 (A) 2,375 rs. (B) 2,385 rs.  
 (C) 2,355 rs. (D) 2,365 rs.
52. If a person bought an item for Rs. 96 and sold it at a profit of 12.5%, then what was the selling price of the item?  
 (A) 105 rs. (B) 110 rs.  
 (C) 112 rs. (D) 108 rs.
53. The cost price of a set of 2 pants + 4 shirts or a set of 1 pants + 6 shirts is Rs. 5,600. A shopkeeper decides to sell them separately. He sold 10 shirts for Rs 6,000. Find the amount of profit or loss per shirt.  
 (A) profit 1000 rs. (B) loss 1000 rs.  
 (C) profit 100 rs. (D) loss 100 rs.
54. There is a difference of 3 rupees in the selling price when an item is sold at a profit of 2% and 18%, then the ratio of the both selling prices is:  
 (A) 51: 59 (B) 51: 53  
 (C) 51: 60 (D) 55: 59
55. There is a difference of 3 rupees in the selling price when an item is sold at a profit of 4% and 10%, then the ratio of the both selling prices is:  
 (A) 52: 55 (B) 51: 55  
 (C) 34: 35 (D) 55: 52
56. If a shopkeeper cheats up to 1% in buying and selling fruits, using less weight, then what percentage is his total profit?  
 (A) 2.25 (B) 2.01  
 (C) 2.75 (D) 2.5
57. A shopkeeper sold 6 radios at a 20% loss. Find the profit at which he should sell the TV, so that he has 0 losses. The cost price of the TV is 3 times each radio.  
 (A) 40% (B) 50%  
 (C) 30% (D) 60%



58. The cost price of 20 tables is equal to the selling price of 'x' tables. If there is a profit of 25%, find the value of 'x'.  
 (A) 18 (B) 16  
 (C) 25 (D) 15
59. Bella is a farmer. He has a few acres of land. Last month, he had a good crop that gave him a 90% return on his initial investment (which was about Rs 90,000). How much money does he need to invest in almost every season?  
 (A) 1,00,000 rs. (B) 3,00,000 rs.  
 (C) 6,00,000 rs. (D) 1,50,000 rs.
60. By selling a table for Rs. 16,870, a shopkeeper loses Rs. 1080. What will be his percentage of loss (rounded off to one decimal)?  
 (A) 6.1% (B) 6.2%  
 (C) 6.4% (D) 6.0%
61. Kaushik bought a toy for Rs. 160 and sold it for Rs. 180. The percentage profit was \_\_\_\_\_.  
 (A) 15.25 (B) 12.5  
 (C) 17.5 (D) 16
62. The selling price of a washing machine is  $1\frac{1}{3}$  of its cost price. Find the profit percentage.  
 (A) 33% (B) 66%  
 (C)  $33\frac{1}{3}\%$  (D)  $66\frac{1}{3}\%$
63. The selling price of an article with a 16% profit was Rs. 435. If the item was sold for Rs. 330, what would be the loss percentage?  
 (A) 12.25 (B) 13  
 (C) 12 (D) 12.5
64. Sahil sold an item for Rs. 280 at a loss of 20%. What was the cost price of the item?  
 (A) 336 (B) 340  
 (C) 350 (D) 1,400
65. A bad item, valued at Rs. 1,200, is sold at a 15% loss. If the price is reduced by another 5%, what will be its selling price?  
 (A) 1000 rs. (B) 969 rs.  
 (C) 960 rs. (D) 990 rs.
66. Vishnu spends Rs.5000 to buy 12 tables and some chairs. A table costs Rs.50 and a chair costs Rs.40. Find the ratio of the number of chairs purchased to the number of tables.  
 (A) 5:2 (B) 55:6  
 (C) 5:1 (D) 55:4
67. A shopkeeper lost 11% on selling an item for Rs. 979. If the shopkeeper sells the item for Rs. 1232, then the profit is%  
 (A) 12% (B) 21%  
 (C) 11% (D) 14%
68. Mr. If Rajesh buys a toy for Rs. 27.50 and sells it for Rs. 28.60, and then there is a percentage profit of -  
 (A) 5% (B) 4%  
 (C) 6% (D) 3%
69. 15 laptops at the rate of Rs. 15,000 each were bought and all were sold for 2.97 lakhs. Find the profit percentage-  
 (A) 28% (B) 40%  
 (C) 33.335 (D) 32%
70. The selling price of a product is Rs. 1,458 and its cost price is Rs. 1,350. Find the profit percentage.  
 (A) 5% (B) 6%  
 (C) 7% (D) 8%
71. A shopkeeper sells cricket bats in such a way that the selling price of 35 bats is equal to the purchase price of 50 bats. State his profit percentage.  
 (A) 33.33% (B) 42.83%  
 (C) 50% (D) 60%
72. An item was sold at a loss of 20% for Rs. 15,000. Find the cost price of the item.  
 (A) 17,750 rs. (B) 17,250 rs.  
 (C) 18,750 rs. (D) 18,250 rs.
73. A shopkeeper makes a profit of 33% after giving a discount of 12%. What is the cost price for a chair for shopkeeper whose marked price is Rs. 4740?  
 (A) 3136 rs. (B) 4050 rs.  
 (C) 3674 rs. (D) 3497 rs.
74. A shopkeeper valued the new item at Rs. 1280. If even after giving 10% discount, he gets 20% profit on the cost price, then find the cost price of the item.  
 (A) 1120 rs. (B) 960 rs.  
 (C) 1000 rs. (D) 940 rs.
75. A shopkeeper put the marked price of an item at Rs. 160. If even after giving 10% discount, he gets 20% profit on the cost price, then find the cost price of the article?  
 (A) 140 rs. (B) 120 rs.  
 (C) 150 rs. (D) 132 rs.
76. A shopkeeper marks Rs. 320 on an item. If even after 10% discount, he gets a profit of 20%, find the cost price of that item.  
 (A) 240 rs. (B) 280 rs.  
 (C) 300 rs. (D) 264 rs.
77. Three boxes containing 25 packets of 10 pencils box sold for Rs. 8,625, if the profit is 15%, find the cost price.  
 (A) 7,400 rs. (B) 7,500 rs.  
 (C) 7,600 rs. (D) 7,700 rs.
78. A wholesaler sells a water purifier at a loss of 40%. If the selling price is increased by 125 rupees then the wholesaler gains 10%. What was the cost price of the water purifier?  
 (A) 250 rs. (B) 225 rs.  
 (C) 275 rs. (D) 300 rs.
79. When Bablu reduces the selling price of shoes from Rs. 360 to Rs. 345, he loses 4% more. Find the cost price of the shoes.  
 (A) 275 rs. (B) 375 rs.  
 (C) 425 rs. (D) 450 rs.

80. An item was sold at a profit of 15% for Rs. 920. Find the selling price of the article at a profit of 20%.  
(A) 1,000 rs. (B) 980 rs.  
(C) 960 rs. (D) 940 rs.
81. Dev sold a mobile for Rs 2210 at a loss of 15%. To get 15% profit on the same mobile, how many rupees will be sold?  
(A) 2980 rs. (B) 3000 rs.  
(C) 2970 rs. (D) 2990 rs.
82. One item was sold for a discount of 35% for Rs. 26,000. If the discount is 15%, find the selling price of the article.  
(A) 36,000 rs. (B) 40,000 rs.  
(C) 38,000 rs. (D) 34,000 rs.
83. An item is sold at a loss of 20% for Rs. 2,400. What should be his selling price to get 20% profit?  
(A) 3,300 rs. (B) 3,600 rs.  
(C) 3,500 rs. (D) 3,400 rs.
84. An item was sold at a discount of 20% for Rs. 2,400. If the discount is 25%, find the selling price of the item-  
(A) 2,250 rs. (B) 2,000 rs.  
(C) 1,800 rs. (D) 2,150 rs.
85. The selling price of a mobile is Rs. 7500 which is being sold at a profit of 50%. A customer asked for some discount from the salesmen. But salesmen were strictly instructed not to sell mobile below 35% profit. In this case, how much of the selling price will the salesman be able to give to the customer?  
(A) 6000 rs. (B) 5000 rs.  
(C) 6750 rs. (D) 5500 rs.
86. A shopkeeper buys a hundred oranges for Rs. 60. He spends 15% on transportation. What should be the selling price of hundred oranges to earn 20% profit?  
(A) 72 rs. (B) 81.8 rs.  
(C) 82.8 rs. (D) 83.8 rs.
87. The cost price of 5 kg of wheat and 10 kg of lentils is Rs. 70 and Rs. 80 per kg respectively. On selling, 10% profit is obtained on wheat and 20% on lentils. So what was the selling price of all the items?  
(A) 1,375 rs. (B) 1,345 rs.  
(C) 1,400 rs. (D) 1,350 rs.
88. An item was sold for 12.5% profit at Rs. 2,250. What was the amount of profit?  
(A) 275 rs. (B) 250 rs.  
(C) 225 rs. (D) 300 rs.
89. If Reena sells 12 mobile phones for Rs. 188,160, whose purchase price is Rs. 14,056 per phone, how much profit did she make?  
(A) 19,488 rs. (B) 17,621 rs.  
(C) 21,014 rs. (D) 18,958 rs.
90. The MRP of a watch is Rs. 4750 and a discount of 12% is given on its sale. If the shopkeeper bought the watch for Rs. 3,850, what would be his profit?  
(A) 240 rs. (B) 570 rs.  
(C) 900 rs. (D) 330 rs.
91. Jeeva bought an item for Rs. 2500 and sold it at 25% more than the cost price and paid Rs. 125 as tax on it. Find his profit in rupees?  
(A) 500 rs. (B) 550 rs.  
(C) 475 rs. (D) 625 rs.
92. If a shopkeeper cheats up to 25% in buying and selling fruit by using less weight, then his total profit percentage is:  
(A) 55.25 (B) 56.25  
(C) 56.75 (D) 56.5
93. The cash difference is Rs. 3 on the basis of 8% and 12% profit of an item. What is the ratio of selling prices of both?  
(A) 27: 28 (B) 27: 29  
(C) 29: 31 (D) 27: 31
94. There is a difference of Rs. 3 between the two selling prices when an item is sold at a profit of 8% and 18%. The ratio between the two selling prices is:  
(A) 54: 59 (B) 54: 61  
(C) 59: 61 (D) 55: 59
95. Mohan earns 20% after giving 15% discount on the face value of a jeans. What is the ratio of the cost price of jeans to marked price?  
(A) 17: 24 (B) 17: 34  
(C) 16: 13 (D) 21: 23
96. There is a difference of 3 rupees on the profit of 8% and 16% in the selling price of an article, then the ratio of the two selling prices is-  
(A) 27: 29 (B) 27: 31  
(C) 29: 31 (D) 27: 32
97. The cash difference between the selling prices of a commodity at 4% and 8% profit is Rs. 3. What is the ratio of these two selling prices?  
(A) 25: 27 (B) 26: 27  
(C) 26: 31 (D) 26: 29
98. There is a difference of 3 rupees in the selling price when an item is sold at a profit of 2% and 16%, then what will be the ratio of the two selling prices?  
(A) 51: 58 (B) 51: 53  
(C) 57: 58 (D) 55: 58
99. When selling an article at a profit of 4% and 12%, the difference in the selling price is Rs. 3, then the ratio of the two selling prices is:  
(A) 13: 14 (B) 13: 15  
(C) 12: 15 (D) 13: 53
100. If a shopkeeper cheats up to 11% in buying and selling fruits, using less weight, then his total profit percentage is-  
(A) 23.25 (B) 23.21  
(C) 23.75 (D) 23.5

Profit & Loss (Solution)

1. **Ans.(B)**  
Given –  
 $Loss = \frac{Cost\ Price(CP)}{7}$   
 $Sale\ Price\ (SP) = 144$   
 $Thus, Loss = cost\ price\ (CP) - Sale\ Price\ (SP)$   
 $\frac{CP}{7} = CP - 144$   
 $CP - \frac{CP}{7} = 144$   
 $\frac{6CP}{7} = 144$   
 $CP = 24 \times 7$   
 $CP = 168$   
New Selling Price = 189  
 $Profit\% = \frac{SP - CP}{CP} \times 100$   
 $= \frac{189 - 168}{168} \times 100$   
 $= \frac{21}{168} \times 100 = 12.50\%$
2. **Ans.(C)**  
Total rupees with the person = 5 + 45  
= 50 rupees  
Profit% or Savings%  
 $= \frac{50 - 45}{50} \times 100$   
 $= \frac{5}{50} \times 100 = 10\%$
3. **Ans.(C)**  
Let, cost price of 1 orange = Rs.1  
So, cost price of 20 oranges. = Rs.20  
Cost price of 15 oranges = the selling price of 20 oranges  
So loss% =  $\frac{20-15}{20} \times 100$   
loss% = 25%
4. **Ans.(A)**  
Cost price of a pen = Rs.  $\frac{1}{5}$   
Sale price of a pen = Rs.  $\frac{1}{4}$   
 $Profit = \frac{1}{4} - \frac{1}{5} = \frac{1}{20}$   
 $Profit\ percentage = \frac{\frac{1}{20}}{\frac{1}{5}} \times 100$   
 $= \frac{5}{20} \times 100 = 5 \times 5 = 25\%$
5. **Ans.(D)**  
Selling price = Cost Price  $\times \frac{(100 + Profit / Loss)}{100}$   
 $466 = cost\ price \times \frac{(100 + 16.5)}{100}$   
 $cost\ price = \frac{466 \times 100}{116.5}$   
 $cost\ price = 400$   
 $loss = 400 - 330 = 70$   
 $loss\% = \frac{70 \times 100}{400} = 17.5\%$
6. **Ans.(D)**  
Profit on first item =  $\frac{200 \times 30}{100} = 60$   
Profit on second item =  $\frac{300 - 60}{600} \times 100$   
 $= \frac{240 \times 100}{600} = 40\%$
7. Profit on second item = 40%  
**Ans.(D)**  
Total cost price = 3500 + 3500 = Rs.7000  
Selling price on 20% profit =  $7000 \times \frac{120}{100}$   
= 8400 Rs.  
Selling price of 1st cycle at 5% of profit  $SP_1$   
 $= 3500 \times \frac{105}{100} = 3675$   
remaining = 8400 – 3675  
= 4725  
profit = 4725 – 3500  
= 1225 Rs.  
profit% =  $\frac{1225}{3500} \times 100$   
profit% = 35%
8. **Ans.(B)**  
Cost price =  $\frac{selling\ price}{100 - Loss} \times 100$   
 $= \frac{72 \times 100}{100 - 10}$   
 $= \frac{7200}{90} = 80$   
Again,  
Selling price = 96 Rs.  
profit % =  $\frac{Selling\ price - cost\ price}{Cost\ price} \times 100$   
 $= \frac{96 - 80}{80} \times 100 = 20\%$
9. **Ans.(A)**  
Cost price of the item is X Rs.  
Sell at a loss of 13% =  $\frac{(100-13) \times X}{100} = \frac{87X}{100}$   
Sell on a Profit of 15% =  $\frac{(100+15) \times X}{100} = \frac{115X}{100}$   
According to Question,  
 $\frac{115X}{100} - \frac{87X}{100} = 63$   
 $\frac{28X}{100} = 63$   
 $X = \frac{63 \times 100}{28} = 225\ Rs.$
10. **Ans.(C)**  
Let, cost of chair = Rs.x  
According to Question,  
 $= \frac{x \times 90}{100} - \frac{x \times 86}{100} = 27$   
 $\Rightarrow \frac{4x}{100} = 27$   
 $\Rightarrow x = 27 \times 25$   
 $\Rightarrow x = 675\ Rs.$
11. **Ans.(B)**  
Let the total cost of goods = Rs. x  
According to Question,  
 $x \times \text{selling Price of } \frac{2}{3} \text{ Part} = \frac{2x}{3} \times \frac{106}{100} = \frac{212x}{300}$   
remaining part =  $x - \frac{2x}{3} = \frac{x}{3}$   
 $\therefore \text{selling Price of } \frac{x}{3} \text{ Part} = \frac{x}{3} \times \frac{97}{100} = \frac{97x}{300}$   
Selling Price of Total Goods =  $\left( \frac{212x}{300} + \frac{97x}{300} \right) = \frac{309x}{300}$   
profit =  $\frac{309x}{300} - x = 540$   
 $\frac{9x}{300} = 540$   
 $x = Rs.18000$   
Hence the total cost of the goods was Rs. 18000.



12. **Ans.(B)**  
According to Question,  
 $\frac{117x}{100} - \frac{82x}{100} = 63$   
 $\frac{35x}{100} = 63$   
 $x = \text{Rs. } 180$
13. **Ans.(D)**  
Let CP = Rs.x  
 $\therefore$  According to Question,  
 $x \times \frac{107}{100} - \frac{x \times 67}{100} = 220$   
 $x \times \frac{40}{100} = 220 \Rightarrow x \times \frac{4}{10} = 220$   
 $x = \text{Rs. } 550$   
So the cost price of the item will be Rs. 550.
14. **Ans.(D)**  
Let Cost price (CP) = x  
Profit % = 17  
Selling price = Rs.2223  
 $\therefore CP = \frac{SP}{(100 + P\%)} \times 100$   
 $= \frac{2223}{117} \times 100$   
 $= \text{Rs. } 1900$
15. **Ans.(D)**  
Let cost of first bag = Rs.x  
And selling price of second bag = Rs.(900 - x)  
According to Question,  
 $x \times \frac{125}{100} = (900 - x) \times \frac{75}{100}$   
 $5x = 2700 - 3x$   
 $8x = 2700$   
 $x = \frac{2700}{8} = 337.5$   
First bag price = 337.5  
Second bag price =  $900 - 337.5 = 562.5$
16. **Ans.(D)**  
As per the first condition –  
Selling price =  $\frac{\text{cost price} \times (100 + \text{profit}\%)}{100}$   
 $= \frac{x \times 106}{100}$   
By second condition  
Selling price =  $\frac{\text{cost price} \times (100 - \text{loss}\%)}{100}$   
 $= \frac{x \times 94}{100}$   
Therefore,  
 $\frac{106x}{100} = \frac{94x}{100} + 870$   
 $\frac{106x}{100} - \frac{94x}{100} = 870$   
 $\frac{12x}{100} = 870$   
 $x = \frac{870 \times 100}{12} = \text{Rs. } 7250$
17. **Ans.(C)**  
Let the cost price of the item = x Rs.  
According to Question,  
 $x \times \frac{114}{100} - x \times \frac{87}{100} = 162$   
 $\Rightarrow \frac{x}{100} [114 - 87] = 162$   
 $\Rightarrow x = \frac{162 \times 100}{27}$   
 $x = 6 \times 100$   
 $x = 600$   
Hence, the cost price of the item = Rs. 600
18. **Ans.(D)**  
Let the cost price = Rs.x  
Selling Price at a 12% loss =  $\frac{88x}{100}$   
Selling Price at 2% profit =  $\frac{102x}{100}$
19. **Ans.(A)**  
According to Question,  
 $\frac{102x}{100} - \frac{88x}{100} = 49$   
 $14x = 4900$   
 $x = \text{Rs. } 350$
20. **Ans.(B)**  
Let the cost price of first watch = Rs.x  
Cost price of second watch = Rs. (480 - x)  
According to Question,  
 $x \times \frac{85}{100} = (480 - x) \times \frac{119}{100}$   
 $\Rightarrow 5x = 480 \times 7 - 7x$   
 $\Rightarrow 12x = 480 \times 7$   
 $x = 280 \text{ Rs.}$   
Cost price of second watch =  $480 - 280 = \text{Rs. } 200$
21. **Ans.(C)**  
Cost Price = 2275 Rs.  
Profit% = 8%  
Selling Price = ?  
Cost Price =  $\frac{\text{Selling price} \times 100}{100 + \text{Profit}\% \text{ loss\%}}$   
 $2275 = \frac{\text{Selling price} \times 100}{100 + 8}$   
Selling price =  $\frac{2275 \times 108}{100} = \frac{245700}{100}$   
Selling price = 2457 Rs.
22. **Ans.(B)**  
Given that –  
Cost price of Toys = 1125  
% loss = 16%  
Selling price = ?  
Formula,  
Cost Price (CP) =  $\frac{\text{selling price (SP)}}{(100 - \text{loss})} \times 100$   
 $\Rightarrow 1125 = \frac{SP}{84} \times 100$   
 $\Rightarrow SP = \frac{1125 \times 84}{100}$   
 $= \frac{1125 \times 84}{100} = \text{Rs. } 945$
23. **Ans.(A)**  
Let cost price of phone = Rs..x  
 $\therefore x \times \frac{(100 - 47)}{100} = 6360$   
 $\Rightarrow x = \frac{6360 \times 100}{53}$   
 $= \text{Rs. } 12,000$   
Hence the selling price at 13% profit = cost price  $\times \frac{100 + 13}{100}$   
 $= 12,000 \times \frac{113}{100} = \text{Rs. } 13,560$
24. **Ans.(A)**  
Profit% =  $\frac{\text{Selling price} - \text{Cost price}}{\text{Cost price}} \times 100$   
 $125 = \frac{\text{selling price}}{96} \times 100$   
Selling price =  $\frac{125 \times 96}{100} = \text{Rs. } 120$

25. **Ans.(D)**  
Let the cost price of goods be  $x$  and the selling price be  $y$ .  
Therefore –  
 $12.5 = \frac{(x-y) \times 100}{x}$ , and  $22.5 = \frac{(y + 56 - x) \times 100}{x}$   
or,  $22.5 = \frac{(y + 56 - x) \times 100 \times 12.5}{(x-y) \times 100}$   
 $\Rightarrow 22.5(x - y) = (y - x + 56) \times 12.5$   
 $\Rightarrow 9(x - y) = (y - x + 56) \times 5$   
 $\Rightarrow 9x - 9y = 5y - 5x + 280$   
 $\Rightarrow 14x - 14y = 280$   
 $\Rightarrow x - y = 20$   
Now,  $12.5 = \frac{20 \times 100}{x}$  or  $x = \frac{2000}{12.5} = \text{Rs. } 160$   
Thus, the purchase price of the article = Rs. 160.  
Now the selling price of the item for 25% profit =  
 $\frac{25 \times 160}{100} + 160 = 5 \times 8 + 160$   
 $= 40 \times 160 = \text{Rs. } 200$

26. **Ans.(A)**  
Cost price of goods = Rs. 1,975  
Profit % = 12%  
[Selling price = Cost price  $\times \frac{100 + \text{profit/loss}}{100}$ ]  
Selling price =  $\frac{1975 \times (100 + 12)}{100}$   
 $= \frac{1975 \times 112}{100}$   
 $= \frac{221200}{100} = 2212$   
Thus, the selling price of the article = Rs. 2,212

27. **Ans.(A)**  
Let the cost price (C.P) =  $x$   
Selling price (S.P) = 48, loss = 20%  
 $\therefore \text{C.P.} \times \frac{80}{100} = 48$   
C.P. = 60 Rs.  
If the profit is 20% then  
 $\text{CP} \times \frac{120}{100} = \text{SP}$   
 $\frac{60 \times 120}{100} = \text{SP}$   
SP = Rs. 72

28. **Ans.(C)**  
Profit of two brand computer company = 15,000 Rs.  
35% of total profit from a brand  
 $= 15000 \times \frac{35}{100} = \text{Rs. } 5250$   
 $\therefore$  Selling price of another brand of computer =  
 $15000 - 5250$   
 $= \text{Rs. } 9,750$

29. **Ans.(C)**  
Selling price of tea set = Rs. 3,540. And loss = 41%  
 $\therefore$  Cost price of tea set =  $\left( \frac{100}{100 - 41} \times 3540 \right)$   
 $= 6000$  rupees  
Intended profit = 11%  
Selling price of tea set =  $\left( (100 + 11) / 100 \times 6000 \right)$   
 $= \text{Rs. } 6660$   
Hence the higher amount for the sale of tea sets =  
 $6660 - 3540 = \text{Rs. } 3120$

30. **Ans.(D)**  
Profit earned in increased of 25%  
 $= 75000 \times \frac{(100 + 25)}{100}$   
 $\Rightarrow 75000 \times \frac{125}{100} = \text{Rs. } 93750$

31. **Ans.(D)**  
Real profit in year 3,  
 $= 5,00,000 \times \frac{35}{100}$   
 $= \text{Rs. } 1,75,000$

32. **Ans.(D)**  
profit – loss% =  $\left( \pm a \pm b \pm \frac{a.b}{100} \right)$   
 $= \left( +20 - 20 - \frac{20 \times 20}{100} \right) \%$   
 $= (+20 - 20 - 4) \%$   
 $= -4$  or 4% loss

33. **Ans.(C)**  
 $\therefore$  Cost Price of 12 Pencils = Rs. 25  
 $\therefore$  Cost price of 1 pencil = Rs.  $\frac{25}{12}$   
 $\therefore$  Selling price of 5 pencils = Rs. 12  
 $\therefore$  Selling price of 1 pencil = Rs.  $\frac{12}{5}$   
 $\therefore$  Required percentage profit  $\frac{\frac{12}{5} - \frac{25}{12}}{\frac{25}{12}} \times 100$

- $= \frac{\frac{144 - 125}{60}}{\frac{25}{12}} \times 100$   
 $= \frac{19}{60} \times \frac{12}{25} \times 100 = 15.2 \%$

34. **Ans.(D)**  
 $\therefore$  3 oranges price = Rs. 1  
Price of 1 orange = Rs.  $\frac{1}{3}$   
2 Orange Price = Rs. 1  
Price of 1 orange = Rs.  $\frac{1}{2}$   
 $\therefore$  The price of mixing two oranges  
 $= \frac{1}{3} + \frac{1}{2} = \frac{5}{6}$   
Price of 1 orange from mixture =  $\frac{5}{12}$   
Selling price of 1 orange on 20% profit =  $\frac{5}{12} \times \frac{120}{100}$   
Selling price of 1 orange = Rs.  $\frac{1}{2}$   
Selling Price of 12 oranges (a dozen) at 20% profit = 6 rupees

35. **Ans.(C)**  
Selling price of 12 watches  
= Cost price of 12 watches + Selling price of 2 watches  
SP of 10 watches = CP of 12 watches  
 $= \frac{\text{Selling price}}{\text{Cost price}} = \frac{12}{10}$   
Profit = Selling price – Cost price  
 $= 12 - 10 = 2$   
Profit % =  $\frac{2}{10} \times 100 = 20 \%$

36. **Ans.(C)**  
Cost price of 1 egg =  $\frac{16}{18}$   
Selling price of 1 egg =  $\frac{20}{22}$   
profit =  $\frac{20}{22} - \frac{16}{18}$   
 $= \frac{360 - 352}{18 \times 22} = \frac{8}{18 \times 22}$   
 $= \frac{8 \times 18}{18 \times 22 \times 16} \times 100$   
profit % =  $\frac{25}{11} \%$

37. **Ans.(D)**  
First type,  
Cost price of 3 oranges = Rs. 1  
 $\therefore$  Purchase price of 6 oranges =  $\frac{1}{3} \times 6 = \text{Rs. } 2$   
Second types,  
Cost price of 2 oranges = Rs. 1



∴ Purchase price of 6 orange =  $\frac{1}{2} \times 6 = \text{Rs. } 3$   
 Total cost price of 12 oranges =  $2 + 3 = \text{Rs. } 5$   
 Selling price of 12 oranges to get 20% profit =  $5 \times \frac{120}{100} = \text{Rs. } 6$

38. **Ans.(C)**

Cost Price of Sari by the Weaver (CP)  
 $= 150 \times \frac{100}{125} = \text{Rs. } 120$   
 Shopkeeper's cost Price (CP) = Rs. 150  
 Shopkeeper's Sale Price (SP) and Customer's  
 Cost Price (CP) =  $150 \times \frac{130}{100} = 195 \text{ Rs.}$   
 So when the weaver sells directly to the customer,  
 Weaver's profit% =  $\frac{180-120}{120} \times 100 = 50\%$   
 Customer profit =  $195 - 180 = \text{Rs. } 15$

39. **Ans.(C)**

Let the cost price of goods sold at 25% profit =  $2x$   
 Cost price of goods sold at 15% loss =  $x$   
 According to Question,

$$\frac{2x \times 125}{100} + \frac{x \times 85}{100} = 3x + 35$$

$$\frac{250x + 85x}{100} = 3x + 35$$

$$335x - 300x = 3500$$

$$35x = 3500$$

$$x = 100$$

$$\text{Hence price of the second item} = 2x = 200$$

$$\text{Total} = 100 + 200 = \text{Rs. } 300$$

40. **Ans.(D)**

Price of car purchased by Rima = 75,000

Repair expense = 10,000

Total cost = 85,000

Selling Price of Car (to Chiru)

$$= 85000 \times \frac{115}{100} = 97,750$$

Chiru's cost price = 97,750 Rs.

$$\text{Sale Price of Cheeru (to Ritu)} = 97,750 \times \frac{110}{100} = 10,7525$$

Thus the amount spent by Ritu in buying a car = Rs. 107,525

41. **Ans.(B)**

Total purchase price = 3 lakh rupees

Selling price to earn a total of 15% profit =  $3,00,000 \times \frac{115}{100} = 3,45,000$

$$\text{Cost price I} = 3,00,000 \times \frac{25}{100} = 75,000$$

$$\text{Selling price I} = 75000 \times \frac{75}{100} = 56250$$

$$\text{Cost price II} = 3,00,000 \times \frac{40}{100} = 1,20,000$$

$$\text{Selling price II} = 1,20,000 \times \frac{125}{100} = 1,50,000$$

$$\text{Total selling Price} = \text{selling Price I} + \text{selling Price II} = 56,250 + 1,50,000 = 206,250$$

$$\text{Remainder} = 345000 - 206250 = \text{Rs. } 138750$$

Hence, the remaining plot would have to be sold for Rs 138,750 for a total profit of 15%.

42. **Ans.(B)**

Cost price (CP) of toys = Rs.280

Selling price (SP) of toys = Rs.315

$$\text{Profit (P)} = 315 - 280 = \text{Rs. } 35$$

Formula –

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

$$= \frac{35}{280} \times 100$$

$$= \frac{5 \times 100}{40} = \frac{50}{4}$$

$$= 12.5\%$$

43.

**Ans.(B)**

Total cost of car = 47000 + 3000  
 = Rs.50,000

Selling price of car = 58,000 Rs.

Profit = Selling price – Cost price

$$\text{Profit} = 58,000 - 50,000 = \text{Rs. } 8,000$$

$$\text{So, profit\%} = \frac{8,000 \times 100}{50,000} = 16\%$$

44.

**Ans.(C)**

Cost Price (Cost) = Rs. 350

Selling price = Rs. 700

$$\text{Profit\%} = \frac{\text{Selling price} - \text{Cost price}}{\text{Cost price}} \times 100$$

$$= \frac{700-350}{350} \times 100$$

$$= \frac{350}{350} \times 100$$

$$= 100\%$$

45.

**Ans.(D)**

Selling price of a pair of shoes = 2,059

Profit = 16%

$$\frac{\text{Cost price}}{100} = \frac{\text{Selling price}}{(\text{Profit} + 100)}$$

$$\text{Cost price of Shoes} = \frac{2,059 \times 100}{(100 + 16)}$$

$$= \frac{2,059 \times 100}{116} = \text{Rs. } 1,775$$

46.

**Ans.(C)**

Selling price = 1440 Rs.

Profit% = 20%

$$\text{Cost price} = \frac{\text{selling price} \times 100}{(100 + \text{Profit\%})}$$

$$= \frac{1440 \times 100}{100 + 20} = \frac{1440 \times 100}{120} = \text{Rs. } 1200$$

47.

**Ans.(B)**

Let the cost price of transistor = Rs.x

$$\text{Profit} = x \times \frac{30}{100} = \frac{3x}{10} \text{ Rs.}$$

∴ Selling price = Cost price + Profit

$$\therefore 572 = x + \frac{3x}{10}$$

$$572 = \frac{10x + 3x}{10}$$

$$13x = 5720$$

$$x = \text{Rs. } 440$$

48.

**Ans.(B)**

Let the cost price of each chair = Rs.x

According to Question –

$$\text{Selling price} = 12x \times \frac{(100 + 12)}{100} + 4x \times \frac{(100 - 3)}{100}$$

$$= \frac{3x \times 112}{25} + \frac{97x}{25}$$

$$= \frac{336x + 97x}{25} = \frac{433x}{25}$$

$$\text{Cost price} = 12x + 4x = 16x$$

Profit = Selling price – Cost price

$$1650 = \frac{433x}{25} - 16x$$

$$1650 \times 25 = 433x - 400x$$

$$x = \frac{1650 \times 25}{33}$$

$$x = 50 \times 25 = 1250$$

Hence, the cost price of a chair is = Rs. 1250.

49. **Ans.(C)**  
 $CP = \frac{SP \times 100}{100 - \text{loss \%}}$   
 $CP = \frac{SP \times 100}{100 - 5}$   
 $CP = \frac{1235 \times 100}{95} = 1300$   
 $SP = CP \times \frac{100 + \text{Profit \%}}{100}$   
 $SP = CP \times \frac{100 + 10}{100}$   
 $SP = 1300 \times \frac{110}{100} = \text{Rs. } 1430$
50. **Ans.(D)**  
 Total cost of car = 4.50 + 1.25 = Rs 5.75 lakh  
 $\therefore \text{Selling price} = \frac{100 - \text{loss \%}}{100} \times \text{Cost price}$   
 $= \left( \frac{100 - 20}{100} \right) \times 5.75$   
 $= \frac{80}{100} \times 5.75 = 4.600 = 4.60 \text{ Lakh}$
51. **Ans.(B)**  
 $\text{Cost price} = \frac{\text{Selling price}}{(100 \pm L/P\%)} \times 100$   
 Let the selling price = x  
 According to Question,  
 $\frac{1755}{100 - 22} \times 100 = \frac{x}{100 + 6} \times 100$   
 $\frac{1755}{78} = \frac{x}{106}$   
 $x = \frac{1755 \times 106}{78}$   
 $x = \frac{186030}{78}$   
 $x = \text{Rs. } 2385$
52. **Ans.(D)**  
 $\text{Selling price} = 96 \left( 1 + \frac{12.5}{100} \right)$   
 $= 96 \times \frac{112.5}{100}$   
 $= 96 \times 1.125$   
 $= \text{Rs. } 108$   
 Hence the selling price of that item is Rs. 108.
53. **Ans.(D)**  
 $2P + 4S = 5600 \dots (i) \text{ where } S = \text{Shirt}$   
 $1P + 6S = 5600 \dots (ii) P = \text{Pant}$   
 Multiplying 2 in equation (ii) and subtracting from equation (i)  
 $8S = 5600$   
 $1S = 700$   
 $\therefore \text{Cost price of 1 Shirt} = \text{Rs. } 700$   
 and selling price of 10 Shirt = 6000  
 $\therefore \text{selling price of 1 Shirt} = \frac{6000}{10} = \text{Rs. } 600$   
 $\therefore \text{Loss} = 700 - 600 = \text{Rs. } 100$
54. **Ans.(A)**  
 Let cost price of the item = Rs. x  
 Difference of selling prices = Rs. 3  
 By question,  
 $x \times \frac{118}{100} - x \times \frac{102}{100} = 3$   
 $\frac{16x}{100} = 3$   
 $x = \frac{75}{4}$   
 $\text{Required Ratio} = \frac{75}{4} \times \frac{102}{100} : \frac{75}{4} \times \frac{118}{100}$   
 $= 51 : 59$
55. **Ans.(A)**  
 Let the cost price of the item = x  
 According to Question,  
 $\frac{x \times 110}{100} - \frac{x \times 104}{100} = 3$   
 $110x - 104x = 300$   
 $6x = 300$   
 $\text{Cost price} = 50$
- Selling price at 4% profit =  $\frac{50 \times 104}{100} = 52$   
 Selling price at 10% profit =  $\frac{50 \times 110}{100} = 55$   
 Required Ratio = 52 : 55
56. **Ans.(B)**  
 The shopkeeper cheats up to 1% by using less weight in buying and selling fruit.  
 $\therefore \text{Total Profit} = 1 + 1 + \frac{1 \times 1}{100}$   
 $= 2 + 0.01 = 2.01\%$
57. **Ans.(A)**  
 Let cost price of one radio be the = Rs. 100  
 So, Total Cost price of Radio = Rs 600  
 According to Question,  
 $\text{Sales Price} = 600 \times \frac{80}{100} = 480 \text{ Rs.}$   
 $\therefore \text{loss} = 600 - 480$   
 $= \text{Rs. } 120$   
 Cost of a TV = 3 x (the value of one radio)  
 $= 3 \times 100$   
 $= \text{Rs. } 300$   
 Let if TV sold at x% profit, there will be no gain or loss.  
 $300 \times \frac{x}{100} = 120$   
 $3x = 120$   
 $x = 40\%$
58. **Ans.(B)**  
 Let the cost price of a table = Rs. 1  
 Then the cost price of 20 tables = Rs. 20  
 selling price of x table = Rs. 20  
 $\text{Selling Price} = \text{Cost Price} \left( \frac{100 + \text{profit}}{100} \right)$   
 $20 = x \times \frac{125}{100}$   
 $x = \frac{100 \times 20}{125}$   
 $x = \text{Rs. } 16$
59. **Ans.(A)**  
 Let the initial investment = Rs. x  
 $\therefore x \times 90\% = 90000$   
 $x \times \frac{90}{100} = 90000$   
 $x = 100000 \text{ Rs.}$
60. **Ans.(D)**  
 Selling price of Table = Rs. 16,870  
 Loss = Rs. 1080  
 Then, cost price of table = 16870 + 1080  
 $= 17,950.$   
 $\text{loss \%} = \frac{\text{loss}}{\text{Cost price}} \times 100 = \frac{1080}{17950} \times 100$   
 $= \frac{108000}{17950} = 6.0167$   
 $\text{loss \%} = 6.01$
61. **Ans.(B)**  
 Cost price of Toys = 160  
 Selling price = 180  
 $\text{Profit \%} = \frac{180 - 160}{160} \times 100 = \frac{1}{8} \times 100$   
 $\text{Profit \%} = 12.5\%$
62. **Ans.(C)**  
 Let cost price = Rs 100.  
 $1\frac{1}{3}$  of selling price = 100  
 $\text{Selling price} = 100 \times \frac{4}{3} = \frac{400}{3}$   
 $\text{profit} = \frac{400}{3} - 100$   
 $= \frac{100}{3}$

$$\begin{aligned}\% \text{ profit} &= \frac{\text{profit}}{\text{Cost price}} \times 100 \\ &= \frac{3}{100} \times 100 = \frac{100}{3} \% \\ &= 33\frac{1}{3} \%\end{aligned}$$

63. **Ans.(C)**

$$\text{Cost price of article} = 435 \times \frac{100}{116} = 375 \text{ Rs.}$$

If selling price be Rs.330 then Loss%

$$\begin{aligned}&= \frac{375-330}{375} \times 100 \\ &= \frac{45}{375} \times 100 = 12\%\end{aligned}$$

64. **Ans.(C)**

$$\begin{aligned}\text{Cost price} &= \frac{\text{Selling price} \times 100}{(100 - \text{loss}\%)} \\ &= \frac{280 \times 100}{80} = 350 \text{ Rs.}\end{aligned}$$

65. **Ans.(B)**

Selling price at a loss of 15%

$$\begin{aligned}&= 1200 \times \frac{(100-15)}{100} \\ &= 1200 \times \frac{85}{100} \\ &= \text{Rs. } 1020\end{aligned}$$

Again, selling price after reduction of 5%

$$\begin{aligned}&= 1020 \times \frac{(100-5)}{100} \\ &= 1020 \times \frac{95}{100} \\ &= \text{Rs. } 969\end{aligned}$$

66. **Ans.(B)**

Total expenditure = Rs. 5000

Price of 1 table = Rs. 50

Price of 12 tables = Rs. 50 × 12 = 600

Remaining = 5000 – 600 = 4400 Rs.

Cost Price of 1 chair = Rs. 40

$$\text{Number of chairs purchased} = \frac{4400}{40} = 110$$

Ratio to number of chairs and table  
= 110 : 12

⇒ 55: 6

67. **Ans.(A)**

$$\begin{aligned}\frac{100 - \text{loss}\%}{100 + \text{profit}\%} &= \frac{\text{First selling price}}{\text{Second selling price}} \\ \frac{100-11}{100+x} &= \frac{979}{1232} \text{ or } \frac{89}{100+x} = \frac{979}{1232} \\ 100+x &= 112 \text{ or } x = 12 \\ \therefore \text{Profit}\% &= 12\end{aligned}$$

68. **Ans.(B)**

$$\begin{aligned}\text{Profit}\% &= \frac{\text{Profit}}{\text{Cost price}} \times 100 \\ &= \frac{28.60-27.50}{27.50} \times 100 \\ &= \frac{1.10 \times 100}{27.50} = \frac{110}{27.5} = 4\%\end{aligned}$$

69. **Ans.(D)**

According to Question,

Cost price of 15 laptop = 15000 × 15 = 225000

$$\text{Profit}\% = \frac{\text{Profit}}{\text{Cost price}} \times 100$$

$$\begin{aligned}\text{Profit}\% &= \frac{297000-225000}{225000} \times 100 \\ &= \frac{72000}{225000} \times 100 = 32\%\end{aligned}$$

70. **Ans.(D)**

The selling price of item = Rs. 1458

Cost price of the item = Rs. 1350

$$\begin{aligned}\text{Profit}\% &= \frac{\text{Profit}}{\text{Cost price}} \times 100 = \left( \frac{1458-1350}{1350} \right) \times 100 \\ &= \frac{108}{1350} \times 100 \\ &= 8\%\end{aligned}$$

71. **Ans.(B)**

If selling price of a items be equal to cost price of b items then, –

$$\% \text{ Profit} = \frac{b-a}{a} \times 100$$

$$\text{Hence \% profit of shopkeeper} = \frac{50-35}{35} \times 100$$

$$= \frac{15}{35} \times 100 = 42.83\%$$

72. **Ans.(C)**

$$\text{Cost Price} = \left( \frac{100}{100 - \text{Loss}\%} \right) \times \text{Selling price}$$

$$= \left( \frac{100}{100-20} \right) \times 15000$$

$$= \frac{100}{80} \times 15000 = \text{Rs. } 18750$$

73. **Ans.(A)**

Marked price of chair = Rs. 4740.

$$\text{Selling price of chair} = 4740 \times \frac{100-12}{100} = 474 \times \frac{88}{10}$$

$$\begin{aligned}\text{Cost price} &= 474 \times \frac{88}{10} \times \frac{100}{100+33} \\ &= \frac{474 \times 88 \times 10}{133} = 3136.24 \approx 3136\end{aligned}$$

74. **Ans.(B)**

Let cost price of item = Rs.x

Marked price = Rs. 1280, Discount = 10%

$$\text{selling Price of goods} = 1280 \times \frac{100-10}{100}$$

$$= 1280 \times \frac{90}{100}$$

By question –

$$x = 1280 \times \frac{90}{100} \times \frac{100}{100+20}$$

$$x = 1280 \times \frac{90}{120} \quad x = 960 \text{ Rs.}$$

75. **Ans.(B)**

$$\text{Selling price of item} = 160 \times \frac{90}{100} = 144$$

$$\therefore \text{Cost price} = \left( \frac{100}{100+20} \right) \times 144$$

$$= \frac{100}{120} \times 144 = 120 \text{ Rs.}$$

76. **Ans.(A)**

Cost price = CP, Marked Price (MP) = 320

Profit = 20%

Discount = 10%

$$\frac{CP \times 120}{100} = \frac{M.P. \times 90}{100}$$

$$\frac{CP \times 120}{100} = \frac{320 \times 90}{100}$$

$$CP = \frac{32 \times 9 \times 10}{12}$$

$$CP = 240 \text{ Rs.}$$

77. **Ans.(B)**

$$\text{Cost price} = \left( \frac{100}{100+15} \right) \times 8625$$

$$= \frac{100}{115} \times 8625 = 7500 \text{ Rs.}$$

78. **Ans.(A)**

Let, cost price of water purifier is Rs.x

According to Question –

$$x \times \frac{(100-40)}{100} + 125 = \frac{x \times 110}{100}$$

$$\Rightarrow \frac{60x}{100} + 125 = \frac{110x}{100}$$

$$\Rightarrow \frac{50x}{100} = 125$$

$$\Rightarrow \frac{x}{2} = 125$$

$$\Rightarrow x = 125 \times 2 = 250$$

79. **Ans.(B)**

By question,

$$4\% = 360 - 345 = 15 \text{ Rs.}$$

$$\therefore 100\% = \frac{15}{4} \times 100$$

$$= 375 \text{ Rs.}$$

Hence, cost price of shoes = Rs. 375



80. **Ans.(C)**

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

$$CP = 920 \times \frac{100}{100 + 15}$$

$$CP = 920 \times \frac{100}{115}$$

$$CP = 800$$

Now the selling price on 20% profit

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

$$= 800 \times \frac{100 + 20}{100} = 800 \times \frac{120}{100} = \text{Rs. } 960$$

81. **Ans.(D)**

$$\text{Cost price of bus} = 2210 \times \frac{100}{100 - 15}$$

$$= 2210 \times \frac{100}{85} = 2600 \text{ Rs.}$$

Sale price of bus at 15% profit

$$= \text{Cost price} \times \frac{100 + 15}{100}$$

$$= 2600 \times \frac{115}{100}$$

$$= 2990 \text{ Rs.}$$

82. **Ans.(D)**

Let Marked price of item = Rs. x

$$\therefore \text{Selling price} = \text{Marked price} \times \left[1 - \frac{\text{Discount \%}}{100}\right]$$

$$26000 = x \times \left[1 - \frac{35}{100}\right]$$

$$26000 = x \times \frac{65}{100}$$

$$x = \frac{26000 \times 100}{65}$$

$$x = 40000 \text{ Rs.}$$

If the discount is 15% then selling price =  $40000 \times$ 

$$\left[1 - \frac{15}{100}\right]$$

$$= 40000 \times \frac{85}{100} = \text{Rs. } 34000$$

83. **Ans.(B)**

$$\text{Cost price of item} = \left(\frac{100}{100 - 20}\right) \times 2400$$

$$= \frac{100}{80} \times 2400 = 3000 \text{ Rs.}$$

 $\therefore$  Selling price at 20% profit

$$= \left(\frac{100 + 20}{100}\right) \times 3000$$

$$= 120 \times 30 = \text{Rs. } 3600$$

84. **Ans.(A)**

$$\frac{100 - D_1 \%}{100 - D_2 \%} = \frac{SP_1}{SP_2}$$

where  $D$  = Discount and  $SP$  = Selling price

$$\frac{100 - 20}{100 - 25} = \frac{2400}{SP_2}$$

$$SP_2 = \frac{2400 \times 75}{80}$$

$$SP_2 = \text{Rs. } 2250$$

 $\therefore$  Selling price = Rs. 225085. **Ans.(C)**

Given that –

Selling price = Rs. 7500

Profit = 50%

$$\therefore \text{Cost price} = \frac{7500 \times 100}{150} = \text{Rs. } 5000$$

Again, New profit = 35%

$$\therefore \text{Selling price} = \frac{5000 \times 135}{100} = \text{Rs. } 6750$$

86. **Ans.(C)**

Cost price of 100 oranges including expenditure on transportation

$$= 60 \times \frac{(100 + 15)}{100} = 60 \times \frac{115}{100} = \text{Rs. } 69$$

So, selling price of 100 oranges at 20% profit

$$= 69 \times \frac{(100 + 20)}{100} = 69 \times \frac{120}{100} = \text{Rs. } 82.8$$

87. **Ans.(B)**Cost price of 5 kg wheat =  $70 \times 5 = 350$ Cost Price of 10 kg Lentil =  $80 \times 10 = 800$ 

According to Question,

$$\text{Selling price of all items} = \frac{350 \times 110}{100} + \frac{800 \times 120}{100}$$

$$= 385 + 960 = \text{Rs. } 1345$$

88. **Ans.(B)**

Given that –

Selling price = Rs. 2250

Profit = 12.5%

$$\therefore \text{Cost price} = \frac{\text{Selling price} \times 100}{(100 + 12.5)}$$

$$= \frac{2250 \times 100}{112.5}$$

$$= \text{Rs. } 2000$$

Hence, profit = selling price – cost price

$$= 2250 - 2000$$

$$= \text{Rs. } 250$$

89. **Ans.(A)**

Selling price of 12 mobiles = 188,160

Cost price of 12 mobiles =  $12 \times 14,056$ 

$$= 168,672$$

Total profit received by Reena

$$= 188,160 - 168,672 = \text{Rs. } 19,488$$

90. **Ans.(D)**

Marked price (MP) = 4750, cost price (CP)

= 3850, (discount %) = 12%

$$\text{Selling price } SP = \frac{MP \times (100 - \text{discount \%})}{100}$$

$$SP = \frac{4750 \times (100 - 12)}{100}$$

$$SP = \frac{4750 \times 88}{100} = 4180$$

$$(\text{Profit}) = SP - CP = 4180 - 3850 = \text{Rs. } 330$$

91. **Ans.(A)**

$$\text{Selling price} = \text{Cost price} \times \frac{(100 \pm P/L)}{100}$$

$$\text{Selling price} = \frac{2500 \times 125}{100} = 3125$$

Profit = Selling price – (Cost price + tax)

$$\text{Profit} = 3125 - (2500 + 125)$$

$$\text{Profit} = 3125 - 2625 = 500$$

92. **Ans.(B)**

$$x \pm y \pm \frac{xy}{100}$$

From the formula,

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

$$= 50 + \frac{625}{100} = 50 + 6.25 = 56.25$$

93. **Ans.(A)**

Let the cost price of the item = Rs. x

Difference of selling prices = Rs. 3

By question –

$$x \times \frac{112}{100} - x \times \frac{108}{100} = 3$$

$$\frac{4x}{100} = 3, x = \frac{300}{4} = 75$$

$$\therefore \text{Required Ratio} = 75 \times \frac{108}{100} : 75 \times \frac{112}{100}$$

$$= 108:112 = 27:28$$

94. **Ans.(A)**

Let the cost price of the item = x Rs.

Difference of selling prices = Rs. 3

By question –

$$x \times \frac{118}{100} - x \times \frac{108}{100} = 3$$

$$\frac{10x}{100} = 3$$

$$x = 30$$

$$\text{Required ratio} = 30 \times \frac{108}{100} : 30 \times \frac{118}{100}$$

$$= 54:59$$

95. **Ans.(A)**

Let the marked price of jeans is Rs. 100.

According to the question,

$$\text{Cost price} = \frac{100 \times 85}{120}$$

Hence ratio of cost price of jeans to marked price

$$\Rightarrow \frac{100 \times 85}{120} : 100$$

$$\Rightarrow 8500:12000$$

$$= 17:24$$

96. **Ans.(A)**

Let cost price of item = Rs.x

$$\text{then, } \frac{x \times 116}{100} - \frac{x \times 108}{100} = 3$$

$$116x - 108x = 300$$

$$8x = 300$$

$$x = \frac{300}{8}$$

Ratio of selling prices

$$= \frac{300 \times 108}{8 \times 100} : \frac{300 \times 116}{8 \times 100} = 108:116$$

$$\text{Required ratio} = 27:29$$

97. **Ans.(B)**

Let the cost price of the item = x Rs.

Difference of selling prices = Rs. 3

By question -

$$x \times \frac{108}{100} - x \times \frac{104}{100} = 3$$

$$\frac{4x}{100} = 3$$

$$x = 75$$

Required ratio

$$= 75 \times \frac{104}{100} : 75 \times \frac{108}{100} = 26:27$$

98. **Ans.(A)**

Let the cost price of the item = Rs.x

According to Question,

$$\frac{116x}{100} - \frac{102x}{100} = 3, \frac{14x}{100} = 3$$

$$\text{Cost price } x = \frac{150}{7}$$

$$\text{Selling price} = \frac{150}{7} \times \frac{102}{100} : \frac{150}{7} \times \frac{116}{100}$$

$$= \frac{51}{7} : \frac{58}{7}$$

$$\text{Required ratio} = 51:58$$

99. **Ans.(A)**

Let the cost price of the item = Rs.x

$$\text{Selling price at 4% profit} = \frac{104x}{100}$$

$$\text{And Selling price at 12% profit.} = \frac{112x}{100}$$

According to Question,

$$= \frac{112x}{100} - \frac{104x}{100} = 3$$

$$\therefore 8x = 300 \quad x = \frac{300}{8}$$

$$\text{Ratio of selling price} = \frac{104x}{100} : \frac{112x}{100}$$

$$= \frac{104}{100} \times \frac{300}{8} : \frac{112}{100} \times \frac{300}{8}$$

$$= 104:112 = 13:14$$

100. **Ans.(B)**

$$\text{Profit \% received by shopkeeper} = 11 + 11 +$$

$$\frac{11 \times 11}{100}$$

$$= 22 + \frac{121}{100}$$

$$= 22 + 1.21 = 23.21\%$$