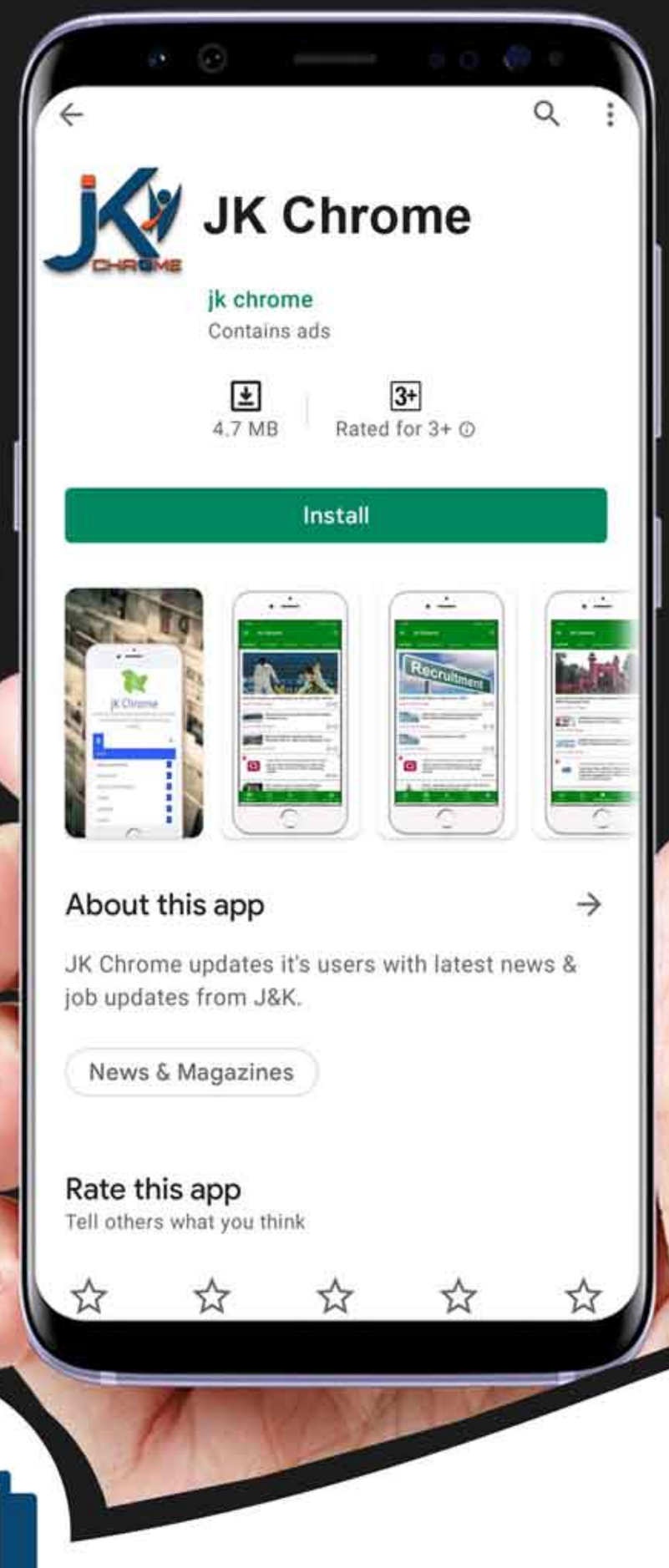
JK Chrome

JK Chrome | Employment Portal



Rated No.1 Job Application of India

Sarkari Naukri
Private Jobs
Employment News
Study Material
Notifications

JOBS

NOTIFICATIONS

G.K

STUDY MATERIAL

GET IT ON Google play

JK Chrome
jk chrome
Contains ads

Click here to DOWNLOAD

www.jkchrome.com | Email : contact@jkchrome.com

CHAPTER

6 Profit & Loss

1. If the ratio of cost price and selling price of an article be as 10 : 11, the percentage of profit is **(SSC CGL 1st Sit. 2010)**
(a) 8 (b) 10 (c) 11 (d) 15

2. 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 **(SSC CGL 1st Sit. 2010)**
(a) ` 40 (b) ` 35 (c) ` 32 (d) ` 30

3. A shopkeeper earns a profit of 12% on selling a book at 10% discount on the printed price. The ratio for the cost price and the printed price of the book is **(SSC CGL 1st Sit. 2010)**
(a) 45 : 56 (b) 45 : 51 (c) 47 : 56 (d) 47 : 51

4. By selling a bicycle for ` 2,850, Aa shopkeeper gains 14%. If the profit is reduced to 8%, then the selling price will be **(SSC CGL 2nd Sit. 2010)**
(a) ` 2,600 (b) ` 2,700 (c) ` 2,800 (d) ` 3,000

5. By selling an article, a man makes a profit of 25% of its selling price. His profit per cent is **(SSC CGL 2nd Sit. 2010)**
(a) 20 (b) 25 (c) $16\frac{2}{3}$ (d) $33\frac{1}{3}$

6. If there is a profit of 20% on the cost price of an article, the percentage of profit calculated on its selling price will be **(SSC CGL 1st Sit. 2010)**
(a) 24 (b) $16\frac{2}{3}$ (c) $8\frac{1}{3}$ (d) 20

7. If the cost price of 15 books is equal to the selling price of 20 books, the loss percent is **(SSC CGL 1st Sit. 2010)**
(a) 16 (b) 20 (c) 24 (d) 25

8. If an article is sold at 200% profit, then the ratio of its cost price to its selling price will be **(SSC CGL 1st Sit. 2010)**
(a) 1 : 2 (b) 2 : 1 (c) 1 : 3 (d) 3 : 1

9. If on a marked price, the difference of selling prices with a discount of 30% and two successive discounts of 20% and 10% is ` 72, then the marked price (in rupees) is **(SSC CGL 2nd Sit. 2010)**
(a) 3,600 (b) 3,000 (c) 2,500 (d) 2,400

10. Successive discounts of 10%, 20% and 30% is equivalent to a single discount of **(SSC CGL 2nd Sit. 2010)**
(a) 60% (b) 49.6% (c) 40.5% (d) 36%

11. The price of an article was first increased by 10% and then again by 20%. If the last increased price be ` 33, the original price was **(SSC CGL 2nd Sit. 2010)**
(a) ` 30 (b) ` 27.50 (c) ` 26.50 (d) ` 25

12. A shopkeeper allows a discount of 10% to his customers and still gains. 20%. Find the marked price of the article which costs ` 450. **(SSC CGL 1st Sit. 2011)**
(a) ` 600 (b) ` 540 (c) ` 660 (d) ` 580

13. What single discount is equivalent to two successive discounts of 20% and 15%? **(SSC CGL 1st Sit. 2011)**
(a) 35% (b) 32% (c) 34% (d) 30%

14. If the selling price of 10 articles is equal to the cost price of 11 articles, then the gain percent is **(SSC CGL 1st Sit. 2011)**
(a) 10 (b) 11 (c) 15 (d) 25

15. 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? **(SSC CGL 1st Sit. 2011)**
(a) ` 1,250 (b) ` 1,400 (c) ` 1,500 (d) ` 750

16. 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 loss percent is **(SSC CGL 1st Sit. 2011)**
(a) Loss $8\frac{1}{3}\%$ (b) Gain $8\frac{2}{3}\%$
(c) Loss $8\frac{2}{3}\%$ (d) Gain $8\frac{1}{3}\%$

17. 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. **(SSC CGL 1st Sit. 2011)**
(a) ` 10,000 and ` 9,500
(b) ` 11,500 and ` 8,000
(c) ` 12,000 and ` 7,500
(d) ` 10,500 and ` 9,000

18. The cost price of an article is 40% of the selling price. What percent of the cost price is the selling price? **(SSC CGL 1st Sit. 2011)**
(a) 140% (b) 200% (c) 220% (d) 250%

19. 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 **(SSC CGL 1st Sit. 2011)**
(a) ` 25 (b) ` 30 (c) ` 27 (d) ` 32

20. If the price of sugar is raised by 25%, find by how much percent a householder must reduce his consumption of sugar so as not to increase his expenditure? **(SSC CGL 1st Sit. 2011)**
(a) 10 (b) 20 (c) 18 (d) 25

21. 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 **(SSC CGL 1st Sit. 2011)**

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

22. 20% loss on selling price is what per cent loss on the cost price? **(SSC CGL 1st Sit. 2011)**

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

23. A reduction of 20% in the price of sugar enables me to purchase 5 kg more for ` 600. Find the price of sugar per kg before reduction of price. **(SSC CGL 1st Sit. 2011)**

(a) ` 24 (b) ` 30 (c) ` 32 (d) ` 36

24. The price of a commodity rises from ` 6 per kg to ` 7.50 per kg. If the expenditure cannot increase, the percentage of reduction in consumption is **(SSC CGL 2011)**

(a) 15 (b) 20 (c) 25 (d) 30

25. 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 **(SSC CGL 2nd Sit. 2011)**

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

26. The difference between a discount of 40% on ` 500 and two successive discounts of 36%, 4% on the same amount is **(SSC CGL 2nd Sit. 2011)**

(a) ` 0 (b) ` 2 (c) ` 1.93 (d) ` 7.20

27. If the cost price of 15 articles is equal to the selling price of 12 articles, find gain % **(SSC CGL 2nd Sit. 2011)**

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

28. 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 **(SSC CGL 2nd Sit. 2011)**

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

29. 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 **(SSC CGL 2nd Sit. 2011)**

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

30. A bookseller makes 8% profit after selling the book at 10% discount. The ratio of the cost price to the marked price is **(SSC Sub. Ins. 2012)**

(a) 4 : 5 (b) 5 : 4
(c) 5 : 6 (d) 6 : 5

31. By selling an artcile for ` 21,000, a man gains 5%. To get a profit of 15%, he has to sell it for **(SSC Sub. Ins. 2012)**

(a) ` 19,800 (b) ` 20,700
(c) ` 23,000 (d) ` 25,000

32. Rahul bought two cycles for a total sum of ` 1,500. He sold one cylce at 20% loss and the other cycle at 20% gain. If the selling price of both the cycles is the same, find the cost price of the two cycles. **(SSC Sub. Ins. 2012)**

(a) ` 500, ` 1,000 (b) ` 600, ` 900
(c) ` 750 each (d) ` 550, ` 950

33. A man sold two articles at ` 375 each. On one, he gains 25% and on the other, he loses 25%. The gain or loss% on the whole transaction is : **(SSC CHSL 2012)**

(a) 6% (b) $4\frac{1}{6}\%$ (c) ` 50 (d) $6\frac{1}{4}\%$

34. A bought an article, paying 5% less than the original price. A sold it with 20% profit on the price he had paid. What percent of profit did A earn on the original price ? **(SSC CHSL 2012)**

(a) 10 (b) 13 (c) 14 (d) $\frac{17}{2}$

35. The profit percent of a bookseller if he sells book at marked price after enjoying a commission of 25% on marked price will be: **(SSC CHSL 2012)**

(a) 30% (b) 25% (c) 20% (d) $33\frac{1}{3}\%$

36. The printed price of a book is ` 320. A retailer pays ` 244.80 for it. He gets successive discounts of 10% and an another rate. His second rate is : **(SSC CHSL 2012)**

(a) 15% (b) 16% (c) 14% (d) 12%

37. A sells an article to B at a gain of 10% , B sells it to C at a gain of 5%. If C pays ` 462 for it, what did it cost to A ? **(SSC CHSL 2012)**

(a) ` 500 (b) ` 450 (c) ` 600 (d) ` 400

38. A discount of 30% on the marked price of a toy reduces its selling price by `30. What is the new selling price (in `) ? **(SSC CGL 1st Sit. 2012)**

(a) 70 (b) 21 (c) 130 (d) 100

39. 'A' sells an article to 'B' at a profit of 20% and 'B' sells it to 'C' at a profit of 25%. If 'C' pays ` 1200, the cost price of the article originally (in `) is **(SSC CGL 1st Sit. 2012)**

(a) 700 (b) 600 (c) 1,000 (d) 800

40. A watch is sold at a profit of 30%. Had it been sold for ` 80 less, there would have been a loss of 10%. What is the cost price of rupees? **(SSC CGL 1st Sit. 2012)**

(a) 150 (b) 200 (c) 400 (d) 800

41. If a commission of 10% is given on the marked price of a work, the publisher gains 20%. If the commission is increased to 15%, the gain percent is: **(SSC CGL 1st Sit. 2012)**

(a) 15% (b) $16\frac{2}{3}\%$ (c) $13\frac{1}{3}\%$ (d) $15\frac{1}{6}\%$

42. By selling 9 articles for a rupee, a man incurred a loss of 4%. To make a gain of 44%, the number of articles to be sold for a rupee is: **(SSC CGL 1st Sit. 2012)**

(a) 5 (b) 3
(c) 4 (d) 6

43. 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 **(SSC CGL 2nd Sit. 2012)**

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

44. A man makes a profit of 20% on the sale by selling 20 articles for ` 1. The number of articles he bought by ` 1
(SSC CGL 2nd Sit. 2012)
(a) 20 (b) 24 (c) 25 (d) 30

45. A businessman allows a discount of 10% on the written price. How much above the cost price must he mark his goods to make a profit of 17%? **(SSC CGL 2nf Sit. 2012)**
(a) 30% (b) 20% (c) 27% (d) 18%

46. A man sold an article at a loss of 20%. If he sells the article for ` 12 more, he would have gained 10%. The cost price of the article is **(SSC CGL 2nd Sit. 2012)**
(a) ` 60 (b) ` 40 (c) ` 30 (d) ` 22

47. A trader has a weighing balance that shows 1,200 gm for a kilogram. He further marks up his cost price by 10%. Then the net profit percentage is **(SSC CGL 2nd Sit. 2012)**
(a) 32% (b) 23% (c) 31.75% (d) 23.5%

48. A merchant purchases a wrist watch for ` 450 and fixes its list price in such a way that after allowing a discount of 10%, he earns a profit of 20%. Then the list price of the watch is
(SSC Multi-Tasking 2013)
(a) ` 600 (b) ` 650 (c) ` 700 (d) ` 550

49. Two successive discounts of 70% and 30% are equivalent to a single discount is **(SSC Multi-Tasking 2013)**
(a) 89% (b) 75% (c) 79% (d) 100%

50. A merchant allows a discount of 10% on marked price for the cash payment. To make a profit of 17%, he must mark his goods higher than their cost price by
(SSC Multi-Tasking 2013)
(a) 30% (b) 33% (c) 40% (d) 27%

51. A dishonest grocer sells rice at a profit of 10% and also uses weights which are 20% less than the marked weight. The total gain earned by him will be **(SSC Multi-Tasking 2013)**
(a) 35% (b) 37.5% (c) 40% (d) 30.5%

52. The cost price of a radio is ` 600. 5% of the cost price is charged towards transportation. After adding that, if the net profit to be made is 15%, then the selling price of the radio must be **(SSC Multi-Tasking 2013)**
(a) ` 684.50 (b) ` 704.50 (c) ` 724.50 (d) ` 664.50

53. By selling a fan for ` 600, a man loses 10%. To make a gain of 20%, the selling price of the fan should be
(SSC Multi-Tasking 2013)
(a) ` 800 (b) ` 900 (c) ` 1000 (d) ` 700

54. A man sold 250 chairs and had a gain equal to selling price of 50 chairs. His profit per cent is: **(SSC Sub. Ins. 2013)**
(a) 20% (b) 25% (c) 50% (d) 15%

55. An article was sold at 16% gain. Had it been sold for ` 200 more, the gain would have been 20%. Then the cost price of the article is : **(SSC Sub. Ins. 2013)**
(a) ` 5000 (b) ` 4800 (c) ` 4500 (d) ` 5200

56. A shopkeeper blends two varieties of tea costing ` 18 and ` 13 per 100 gm in the ratio 7:3. He sells the blended variety at the rate of ` 18.15 per 100 gm. His percentage gain in the transaction is **(SSC CHSL 2013)**
(a) 8% (b) 10% (c) 12% (d) 14%

57. A got 30% concession on the label price of an article sold for ` 8,750 with 25% profit on the price he bought. The label price was **(SSC CHSL 2013)**
(a) 10,000 (b) 13,000 (c) 16,000 (d) 12,000

58. The cost price of a book is ` 150. At what price should it be sold to gain 20% ? **(SSC CHSL 2013)**
(a) ` 80 (b) ` 120 (c) ` 180 (d) ` 100

59. If books bought at prices ranging from ` 150 to ` 300 are sold at prices ranging from ` 250 to ` 350, what is the greatest possible profit that might be made in selling 15 books ?
(SSC CHSL 2013)
(a) ` 3,000 (b) Cannot be determined
(c) ` 750 (d) ` 4,250

60. 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 ? **(SSC CGL 1st Sit. 2013)**
(a) ` 7.2 (b) ` 72.2 (c) ` 72 (d) ` 85

61. The marked price of a mixie is ` 1600. The shopkeeper gives successive discount of 10% and x% to the customer. If the customer pays ` 1224 for the mixie, find the value of x :
(SSC CGL 1st Sit. 2013)
(a) 8% (b) 10% (c) 12% (d) 15%

62. Which of the following successive discounts is better to a customer? **(SSC CGL 1st Sit. 2013)**
(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

63. On selling an article for ` 170, a shopkeeper loses 15%. In order to gain 20%, he must sell that article at rupees :
(SSC CGL 1st Sit. 2013)
(a) 210 (b) 215.50 (c) 212.50 (d) 240

64. A retailer purchased radiosets 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
(SSC CGL 2nd Sit. 2013)
(a) 19% (b) 78.4% (c) 22% (d) 19.6%

65. A reduction in the price of apples enables a person to purchase 3 apples for ` 1 instead of ` 1.25. What is the % of reduction in price (approximately)?
(SSC CGL 2nd Sit. 2013)
(a) 20 (b) 25 (c) 30 (d) $33\frac{1}{3}$

66. A fruit seller buys some oranges at the rate of 4 for ` 10 and an equal number more at 5 for ` 10. He sells the whole lot at 9 for ` 20. What is his loss or gain percent?
(SSC CGL 2nd Sit. 2013)
(a) Loss percent $1\frac{19}{81}\%$ (b) Gain percent $1\frac{19}{81}\%$
(c) No loss or no profit (d) Loss percent 2%

67. An article is sold for ` 300 at a profit of 20%. Had it been sold ` 235, the loss percentage would have been **(SSC CGL 2nd Sit. 2013)**

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

68. A dozen pairs of socks quoted at ` 180 are available at discount of 20%. How many pairs of socks can be bought for ` 48? **(SSC CGL 2nd Sit. 2013)**

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

69. 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 **(SSC CGL 2nd Sit. 2013)**

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

70. 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 **(SSC CGL 2nd Sit. 2013)**

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

71. Kabir buys an article with 25% discount on its marked price. He makes a profit of 10% by selling it at ` 660. The marked price is **(SSC CGL 1st Sit. 2013)**

(a) ` 600 (b) ` 685 (c) ` 700 (d) ` 800

72. On the eve of Gandhi Jayanti, Gandhi Ashram declared a 25% discount on silk. If selling price of a silk saree is ` 525, what is its marked price ? **(SSC CGL 1st Sit. 2013)**

(a) ` 700 (b) ` 725 (c) ` 750 (d) ` 775

73. A CD was sold at a profit of $12\frac{1}{2}\%$. If it had been sold at a profit of 15%, it would have gained him ` 10 more. The cost prices of CD is (in `) **(SSC CGL 1st Sit. 2013)**

(a) 450 (b) 500 (c) 400 (d) 550

74. A shopkeeper marks his goods 20% above his cost price and gives 15% discount on the marked price. His gain percent is **(SSC CGL 2nd Sit. 2013)**

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

75. 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 **(SSC CGL 2nd Sit. 2013)**

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

76. 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 **(SSC CGL 2nd Sit. 2013)**

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

77. A tradesmen sold an article at a loss of 20%. if the selling price had been increased by ` 100. there would have been a gain of 5%. The cost price of the article (in `) was **(SSC CGL 2nd Sit. 2013)**

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

78. 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. **(SSC CGL 2nd Sit. 2013)**

(a) ` 350 (b) ` 405 (c) ` 400 (d) ` 450

79. A bookseller sells a book at a profit of 10%. If he had bought it at 4% less and sold it for ` 6 more, he would have gained $18\frac{3}{4}\%$. The cost price of the book is **(SSC Multi-Tasking 2014)**

(a) ` 160 (b) ` 170

(c) ` 150 (d) ` 155

80. Aman sells two watches at ` 99 each. On one he gets 10% profit and on the other he loses 10%. His net gain or loss percent is **(SSC Multi-Tasking 2014)**

(a) loss of 1% (b) no profit no loss

(c) profit of 10% (d) loss of 10%

81. If a person lost 8% by selling an article for ` 1,035, he bought the article for **(SSC Multi-Tasking 2014)**

(a) ` 1,135 (b) ` 1,152 (c) ` 1,105 (d) ` 1,125

82. A cycle merchant allows 25% discount on the marked price of the cycles and still makes a profit of 20%. If he gains ` 360 over the sale of one cycle, find the marked price of the cycle. **(SSC Multi-Tasking 2014)**

(a) ` 2,920 (b) ` 2,800 (c) ` 2,880 (d) ` 2,900

83. Rita purchased a car with a marked price of ` 2,10,000 at a discount of 5%. If the sales tax charged is 10%, find the amount she has to pay. **(SSC Multi-Tasking 2014)**

(a) ` 2,19,500 (b) ` 2,19,000

(c) ` 2,19,450 (d) ` 2,20,000

84. A shopkeeper sold an item for ` 1,800 at a discount of 10% and gained ` 200. Had he not given the discount, his gain would be **(SSC Multi-Tasking 2014)**

(a) ` 300 (b) ` 400 (c) ` 180 (d) ` 200

85. A tea-merchant professes to sell tea at cost price but uses a false weight of 900 gram for a kilogram. The profit percent in his transaction is **(SSC Sub. Ins. 2014)**

(a) $11\frac{1}{9}\%$ (b) 10% (c) $9\frac{1}{11}\%$ (d) 15%

86. Mahesh earned a profit of 20% by selling 60 apples at the rate of ` 42.50 for 5 apples. Then the total cost, at which the apples were bought is **(SSC Sub. Ins. 2014)**

(a) ` 452 (b) ` 425 (c) ` 450 (d) ` 485

87. A retailer buys a sewing machine at a discount of 15% and sells it for ` 1955. Thus he makes a profit of 15%. The discount is **(SSC Sub. Ins. 2014)**

(a) ` 270 (b) ` 290 (c) ` 300 (d) ` 310

88. The marked price of a saree is ` 200. After allowing a discount of 20% on the marked price, the shopkeeper makes a profit of ` 16. Find the gain percent. **(SSC CHSL 2014)**

(a) $11\frac{1}{9}\%$ (b) $9\frac{1}{11}\%$ (c) 11% (d) 8%

89. The marked price of an item is twice the cost price. For a gain of 15%, the discount should be **(SSC CHSL 2014)**

(a) 7.5% (b) 20.5% (c) 32.5% (d) 42.5%

90. A man sold his watch at a loss of 5%. Had he sold it for ` 56.25 more, he would have gained 10%. What is the cost price of the watch (in `) ? **(SSC CHSL 2014)**

(a) 370 (b) 365 (c) 375 (d) 390

91. A shopkeeper allows 10% discount on goods when he sells without credit. Cost price of his goods is 80% of his selling price. If he sells his goods by cash, then his profit is **(SSC CGL 1st Sit. 2014)**

(a) 50% (b) 70% (c) 25% (d) 40%

92. A dealer of scientific instruments allows 20% discount on the marked price of the instruments and still makes a profit of 25%. If his gain over the sale of an instrument is ` 150, find the marked price of the instrument. **(SSC CGL 1st Sit. 2014)**

(a) ` 938.50 (b) ` 940 (c) ` 938 (d) ` 937.50

93. Ram bought a T.V. with 20% discount on the labelled price. Had he bought it with 30% discount he would have saved ` 800. The value of the T.V. set that he bought is **(SSC CGL 1st Sit. 2014)**

(a) ` 5,000 (b) ` 8,000 (c) ` 9,000 (d) ` 10,000

94. A sold an article to B at 20% profit and B sold it to C at 15% loss. If A sold it to C at the selling price of B, then A would make **(SSC CGL 1st Sit. 2014)**

(a) 5% profit (b) 2% profit
(c) 2% profit (d) 5% loss

95. A trader marks his goods 20% above C.P. but allows his customers a discount of 10. The C.P. of a blackboard, which is sold for ` 216, is: **(SSC Sub. Ins. 2015)**

(a) ` 200 (b) ` 180 (c) ` 108 (d) ` 196

96. If a shopkeeper purchases cashewnut at ` 250 per kg and sells it at ` 10 per 50 grams, then he will have: **(SSC Sub. Ins. 2015)**

(a) 25% profit (b) 20% profit
(c) 20% loss (d) 25% loss

97. A man bought a watch at 25% discount on the original price. He got ` 40 more than the original price by selling it at 140% of the price at which he bought. The price of buying the watch was: **(SSC Sub. Ins. 2015)**

(a) ` 900 (b) ` 600 (c) ` 800 (d) ` 700

98. A fruit seller buys 240 apples for ` 600. Some of these apples are bad and are thrown away. He sells the remaining apples at ` 3.50 each and makes a profit of ` 198. The % of apples thrown away are : **(SSC Sub. Ins. 2015)**

(a) 8% (b) 7% (c) 6% (d) 5%

99. By selling an article for ` 450. I lose 20%. For what amount, should I sell it to gain 20%? **(SSC CHSL 1st Sit. 2015)**

(a) ` 490 (b) ` 470 (c) ` 562.50 (d) ` 675

100. A fruit seller buys oranges at the rate of ` 10 per dozen and sells at the rate of ` 12 per dozen. His gain percent is : **(SSC CHSL 1st Sit. 2015)**

(a) 15% (b) 20% (c) $8\frac{1}{3}\%$ (d) 12%

101. A house was sold for ` y by giving a discount of x%, then the list price was : **(SSC CHSL 1st Sit. 2015)**

(a) $\frac{100y}{100-x}$ (b) $\frac{100x}{100-y}$ (c) $\frac{100y}{1-x}$ (d) $\frac{100y}{1-\frac{x}{100}}$

102. Successive discounts of 20% and 10% are equivalent to a single discount of : **(SSC CHSL 2nd Sit. 2015)**

(a) 28% (b) 25% (c) 30% (d) 15%

103. A man purchased an article for ` 1500 and sold it at 25% above the cost price. If he has to pay ` 75 as tax on it, his net profit percentage will be : **(SSC CHSL 2nd Sit. 2015)**

(a) 25% (b) 30% (c) 15% (d) 20%

104. After allowing a discount of 20%, a radio is available for ` 1200. Its marked price was : **(SSC CHSL 2nd Sit. 2015)**

(a) ` 1500 (b) ` 1800 (c) ` 1400 (d) ` 1550

105. 10% discount and then 20% discount in succession is equivalent to total discount of **(SSC CGL 2nd Sit. 2015)**

(a) 15% (b) 30% (c) 24% (d) 28%

106. The marked price of a watch was ` 720. A man bought the same for ` 550.80 after getting two successive discounts, the first being 10%. The second discount rate is **(SSC CGL 2nd Sit. 2015)**

(a) 12% (b) 14% (c) 15% (d) 18%

107. Allowing 20% and 15% successive discounts, the selling price of an article becomes ` 3,060; then the marked price will be **(SSC CGL 2nd Sit. 2015)**

(a) ` 4,400 (b) ` 5,000 (c) ` 4,500 (d) ` 4,000

108. A shopkeeper bought 30 kg of rice at the rate of ` 70 per kg and 20 kg of rice at the rate of ` 70.75 per kg. If he mixed the two brand of rice and sold the mixture at ` 80.50 per kg. his gain is **(SSC CGL 2nd Sit. 2015)**

(a) ` 510 (b) ` 525 (c) ` 485 (d) ` 450

109. The difference between successive discounts of 40% followed by 30% and 45% followed by 20% on the maked price of an article is ` 12. The marked price of the article is: **(SSC CGL 1st Sit. 2015)**

(a) ` 400 (b) ` 200 (c) ` 800 (d) ` 600

110. Find a single discount equivalent to a discount series of 10%, 20% and 25% **(SSC CGL 1st Sit. 2015)**

(a) 45% (b) 55% (c) 52% (d) 46%

111. Cost price of 100 books is equal to the selling price of 60 books. The gain or loss percentage will be : **(SSC CGL1st Sit. 2015)**

(a) $66\frac{2}{3}\%$ (b) $66\frac{1}{4}\%$ (c) 66% (d) $66\frac{3}{4}\%$

112. An article which is marked ` 975 is sold for ` 897. The discount % is ? **(SSC CGL 1st Sit. 2015)**

(a) 6% (b) 10% (c) 12% (d) 8%

113. If the successive discounts be 20% , 10% and 5%, then the single equivalent rate of discount is **(SSC CGL 1st Sit. 2016)**

(a) 31.6% (b) 31.5% (c) 31% (d) 31.4%

114. The selling price of 6 bananas is equal to the cost price of 8 bananas. Then the percentage of profit is **(SSC CGL 1st Sit. 2016)**

(a) 20 (b) $33\frac{1}{3}$ (c) 25 (d) 30

115. The marked price of a ceiling fan is ` 1200 and the shopkeeper allows a discount of 5 % on it. Then selling price of the fan is **(SSC CGL 1st Sit. 2016)**

(a) ` 1410 (b) ` 1400 (c) ` 1140 (d) ` 1104

116. The successive discount of 15%, 20% and 25% on an article is equivalent to the single discount of **(SSC CGL 1st Sit. 2016)**

(a) 60% (b) 47% (c) 49% (d) 40%

117. If the ratio of cost price and selling price be 10:11, then the profit percentage is **(SSC CGL 2nd Sit. 2016)**

(a) 1% (b) 10% (c) 5% (d) 8%

118. A dealer marks a washing machine for ` 7500, and allows a discount of 6% on it. Find the selling price **(SSC CGL 2nd Sit. 2016)**

(a) 6850 (b) 7050 (c) 7250 (d) 6950

119. Loss of 20% on selling price is equal to x% loss in cost price. What is x? **(SSC CGL 2nd Sit. 2016)**

(a) 20% (b) 20 (c) $16\frac{2}{3}\%$ (d) 16

120. A man sells an article at 5% above the cost price. If he had bought it at 5% less than what he paid for it and sold it for ` 2 less, he would have gained 10%. The cost price of the article is **(SSC Sub Inspector 2016)**

(a) ` 250 (b) ` 400 (c) ` 350 (d) ` 200

121. A trader lists his article 20% above the cost price and allows a discount of 10% on cash payment. His gain percent is **(SSC Sub Inspector 2016)**

(a) 6% (b) 10% (c) 5% (d) 8%

122. By selling an article at $\frac{3}{4}$ of selling price, a trader incurred a loss of 10%. The profit/loss percentage, when it is sold at the original selling prices, is **(SSC Sub Inspector 2016)**

(a) 120% profit (b) 32.5% loss
(c) 20% loss (d) 20% profit

123. A merchant purchase a wrist watch for ` 1,200 and fixes its list price in such a way that after allowing a discount of 10%, he earns a profit of 20%. The list price of the watch is **(SSC Sub Inspector 2016)**

(a) ` 1,600 (b) ` 12,000 (c) ` 1,400 (d) ` 1,800

124. After a discount of 34% an article is sold for ` 3168. What is the marked price (in `) of the article? **(SSC CGL 2017)**

(a) 4750 (b) 4800 (c) 4850 (d) 5000

125. For an article the profit is 170% of the cost price. If the cost price increases by 20% but the selling price remains same, then what is the new profit percentage? **(SSC CGL 2017)**

(a) 41 (b) 50 (c) 75 (d) 125

126. After two successive discount of 20% and 35%, an article is sold for ` 50700. What is the marked price (in `) of the article? **(SSC CGL 2017)**

(a) 92500 (b) 98500 (c) 97500 (d) 94000

127. If the price of pen decreases by 20%, then a man can buy 10 more pens for ` 100. What is the new price (in `) of each pen? **(SSC CGL 2017)**

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

128. The marked price of a sofa set is ` 4800 which is sold at ` 3672 at two successive discounts. If the first discount is 10%, then what will be the second discount (in%)? **(SSC CGL 2017)**

(a) 13 (b) 14 (c) 15 (d) 17

129. By selling 175 pineapples, the gain is equal to the selling price of 50 pineapples. What is the gain percentage? **(SSC CGL 2017)**

(a) 28 (b) 30 (c) 32 (d) 40

130. The marked price of an article is 20% more than its cost price. If 5% discount is given on the maked price, then what is the profit percentage? **(SSC CGL 2017)**

(a) 5 (b) 14 (c) 15 (d) 25

131. A person bought pens at 25 for a rupee and sold at 15 for a rupee. What is his profit percentage? **(SSC CGL 2017)**

(a) $16\frac{2}{3}$ (b) $33\frac{1}{3}$ (c) $66\frac{2}{3}$ (d) 40

132. Marked price of an item is Rs 500. On purchase of 2 items discount is 8%, on purchase of 3 items discount is 16%. Radha buys 5 items, what is the effective discount? **(SSC CHSL 2017)**

(a) 20.4 percent (b) 23.25 percent
(c) 12.8 percent (d) 35 percent

133. The price of an article is cut by 33%, to restore to its original value, the new price must be increased by **(SSC CHSL 2017)**

(a) 33 percent (b) 49.25 percent
(c) 24.81 percent (d) 41.25 percent

134. A shopkeeper by selling 13 Titan watches, earns a profit equal to the selling price of 3 Titan watches. His profit percentage is **(SSC CHSL 2017)**

(a) 30 percent (b) 23 percent
(c) 46 percent (d) 16 percent

135. A merchant buys 20 kgs of a variety of rice at ` 14 per kg and another 40 kgs of rice at ` 10 per kg. He mixes them and sells 1/3 of the mixture at ` 12.50 per kg. At what rate should be sell the remaining mixture so as to earn a profit of 25% on the whole outlay? **(SSC MTS 2017)**

(a) ` 12/- (b) ` 15/- (c) ` 12.50/- (d) ` 13/-

136. A man sells an article at a loss of 10%. If he had sold it for ` 75 more he would have gained 20%. The cost price of the article is (in `): **(SSC MTS 2017)**

(a) 225 (b) 300

(c) 250 (d) 150

137. A fan is listed at ` 150/- with a discount of 20%. What additional discount must be offered to the customer to bring the net price to ` 108/- ? **(SSC MTS 2017)**

(a) 15% (b) 5%

(c) 10% (d) 20%

138. A fruit seller buys 100 kg of superior variety of mangoes at ` 45 per kg and 200 kgs of inferior variety at ` 40 per kg and sells all the mangoes at ` 45 per kg. The profit percentage of the fruit seller is: **(SSC MTS 2017)**

(a) $22\frac{2}{9}$ (b) 12.5 (c) 8 (d) 25

139. A shopkeeper sold a TV set for ` 17940 with a discount of 8% and earned a profit of 19.6%. What should have been the percentage of profit earned if no discount was offered? **(SSC MTS 2017)**

(a) 23.07% (b) 24.6% (c) 24.05% (d) 30%

140. At what percent above the cost price must a person mark the price of an article so that he can enjoy 20% profit after allowing 20% discount? **(SSC MTS 2017)**

(a) 60% (b) 30% (c) 50% (d) 40%

141. An article is sold for ` 6552 after a discount of 22%. What is the marked price (in `) of the article? **(SSC Sub. Ins. 2017)**

(a) 8450 (b) 8425 (b) 8400 (d) 8750

142. A man bought 15 mangoes for a rupee. How many mangoes were sold for a rupee so that there is a loss of 25%? **(SSC Sub. Ins. 2017)**

(a) 10 (b) 12 (c) 18 (d) 20

143. By selling a fan for ` 1900 a man has a loss of 5 %, then at what price (in `) should he sell the fan to gain 20%? **(SSC Sub. Ins. 2017)**

(a) 2000 (b) 2400

(c) 2600 (d) 2800

144. A, B and C started a business by investing ` 55,000, ` 65,000 and ` 75,000 respectively. A is a working partner and gets 20% of the profit as working allowance and remaining is distributed in the proportion of their investment. If the money received by C is ` 27,000 what is the total profit? **(SSC Sub-Inspector-2018)**

(a) ` 87,750 (b) ` 85,500

(c) ` 76,850 (d) ` 70,200

145. A shopkeeper marks his good at a price such that after giving a discount of 25%, the gains 20%. If the marked price of the article is ` 736, what is the cost price of the article? **(SSC Sub-Inspector 2018)**

(a) ` 460 (b) ` 450

(c) ` 440 (d) ` 455

146. A shopkeeper sold two articles for ` 9831 each. On one he gained 13% and on the other, he lost 13%. What is the 43 overall percentage gain or loss? **(SSC Sub. Ins. 2018)**

(a) 1.69% gain (b) 6.5% gain

(c) 1.69% loss (d) 6.5% loss

147. A shopkeeper bought an article for ` 100 and marked its price 25% above the cost price. How much discount percentage should he announce in order to make a profit of 15%? **(SSC CHSL 2018)**

(a) 8.25 % (b) 8.5 %

(c) 8 % (d) 10 %

148. Two articles are sold for ` 9,720 each. On one, the seller gains 8% and on the other, he loses 10%. What is his overall gain or loss? **(SSC CGL 2018)**

(a) ` 380 gain (b) ` 380 loss

(c) ` 360 loss (d) ` 360 gain

149. Two articles are sold for ` 962 each. On one, the seller gains 30% and on the other he loses 26%. What is his overall gain or loss percentage, nearest to one decimal place? **(SSC CGL 2018)**

(a) 6.0% gain (b) 5.7% loss

(c) 5.7% gain (d) 6.0% loss

150. The marked price of an article is ` 3040. If the discount offered on this article is 20%, then what will be the selling price? **(SSC MTS 2018)**

(a) ` 2412 (b) ` 3262

(c) ` 2432 (d) ` 3132

151. Raman and Sanjay started a business by investing ` 63000 and ` 42000 respectively. If the total profit at the end of year is ` 9000, then what is the share of Raman? **(SSC MTS 2018)**

(a) ` 5400 (b) ` 4500

(c) ` 4200 (d) ` 3600

152. The ratio of the selling price to the cost price in a transaction is 4 : 5. If the selling price is ` 80, then how much is the loss? **(SSC MTS 2018)**

(a) ` 16 (b) ` 15

(c) ` 20 (d) ` 30

153. The profit earned on selling an article at ` 720 is half of the loss incurred on selling the same article at ` 360. What is the cost price of the article. **(SSC MTS 2018)**

(a) ` 540 (b) ` 600 (c) ` 480 (d) ` 420

154. A person sells an article at 10% below its cost price. Had he sold it for Rs. 332 more, he would have made a profit of 20%. What is the original selling price (in Rs.) of the article? **(SSC CGL 2019-20)**

(a) 1,028 (b) 1,328 (c) 996 (d) 896

155. A shopkeeper marks the price of the article in such a way that after allowing 28% discount, he wants a gain of 12%. If the marked price is Rs. 224, then the cost price of the article is : **(SSC CGL 2019-20)**

(a) Rs. 144 (b) Rs. 168 (c) Rs. 120 (d) Rs. 196

156. By selling an article for ` 320, a men incurs a loss of 20%. What should be the selling price of an article to gain 20%? **(SSC MTS 2019-20)**

(a) ` 450 (b) ` 480 (c) ` 420 (d) ` 500

157. What is a single discount equivalent to two successive discounts of 10% and 15%? **(SSC MTS 2019-20)**

(a) 21.5% (b) 23.5% (c) 25% (d) 26.5%

158. Selling price of an article is $\frac{8}{7}$ of cost price. What is the profit percentage? **(SSC MTS 2019-20)**

(a) $\frac{100}{9}$ (b) $\frac{100}{11}$ (c) $\frac{100}{8}$ (d) $\frac{100}{7}$

159. On selling a bike for ` 2500 a seller incurs a loss of 20%. What price would have caused him to lose 30%? **(SSC CHSL 2019-20)**

(a) `2186.5 (b) `2187.5 (c) `2188.5 (d) `2185.5

160. Mohan offers to sell his articles at a discount of 20%, but he marks his articles by increasing the price of each by 35%. What percentage would his gain be? **(SSC CHSL 2019-20)**

(a) 9% (b) 7% (c) 8% (d) 10%

161. A trader bought 640 kg of rice. He sold a part of rice at 20% profit and the rest at 5% loss. He earned a profit of 15% in the entire transatcion. What is the quantity (in kg) of rice that he sold at 5% loss? **(SSC CGL 2020-21)**

(a) 154 (b) 256 (c) 128 (d) 132

162. A shopkeeper marks his good 30% higher than the cost price and allows a discount of 10% on the marked price. In order to earn 6.5% more profit, what discount percent should he allow on the marked price? **(SSC CGL 2020-21)**

(a) 4 (b) 5.5 (c) 6 (d) 5

163. A shopkeeper sold an article for ` 3,750. If he had charged 24% less, even then he would have earned a profit of 14%. What is the original cost of the article? **(SSC CHSL 2020-21)**

(a) ` 2,500 (b) ` 3,289 (c) ` 2,717 (d) ` 2,850

164. What will be the selling price of an article if two successive discounts of 15% and 12% are offered on its marked price of ` 25,500? **(SSC CHSL 2020-21)**

(a) ` 19, 074 (b) ` 18,615 (c) ` 25,041 (d) ` 21,165

165. The selling price of an article is $\frac{7}{6}$ times the cost price. What is the loss/gain percentage (correct up to two decimal places)? **(SSC MTS 2020-21)**

(a) Loss 16.67 % (b) Gain 16.67%
(c) Loss 19.54% (d) Gain 19.54%

166. A sells an article to B at 12% profit. B sells it to C at 9% loss. If C pays ` 15, 288 for it, then at what price (in `) is the article purchased by A? **(SSC MTS 2020-21)**

(a) 15, 000 (b) 16, 800 (c) 14, 250 (d) 16, 000

167. After allowing a discount of 10% on the marked price of an article, it is sold for ` 450. Had the discount not been given, the profit would have been 25%. What is the cost price (in `) of the article? **(SSC MTS 2020-21)**

(a) 400 (b) 500 (c) 625 (d) 375

168. Two successive discounts, each of x % on the marked price of an article, are equal to a single discount of ` 331.20. If the marked price of the article is ` 920, then the value of x is: **(SSC Sub-Inspector 2020-21)**

(a) 20 (b) 15 (c) 25 (d) 18

169. A person sold an article at a loss of 16 %. Had he sold it for ` 660 more, he would have gained 8 %. What should be the selling price (in `) to gain a profit of 12 % ? **(SSC Sub-Inspector 2020-21)**

(a) 2,970 (b) 3,200 (c) 2,750 (d) 3,080

170. Three successive discounts 22%, 17% and 11% are equivalent to a single discount of: **(SSC Sub-Inspector 2020-21)**

(a) approximately 42% (b) approximately 25%
(c) approximately 50% (d) approximately 45%

171. The price of diesel increased by 16 %. A person wants to increase his expenditure on diesel by 10 % only. By what percentage, correct to one decimal place, should he reduce his consumption? **(SSC Sub-Inspector 2020-21)**

(a) 6.5 % (c) 5.2 % (b) 3.7 % (d) 4.5 %

HINTS & EXPLANATIONS

1. (b) Gain = 11x – 10x = `x

$$\therefore p\% = \frac{p \times 100}{cp} \times 100 = \frac{x}{10x} \times 100 = 10\%$$

2. (c) Marked price = ` 50

S.P. after discount = 80% of 50 = ` 40

If the CP of article be ` x, then

$$\frac{125 \times x}{100} = 40$$

$$\Rightarrow x = \frac{40 \times 100}{125} = `32$$

3. (a) Let the CP be ` 100.

$\therefore$ SP = ` 112

If the marked price be ` x, then

90% of x = 112

$\Rightarrow x = \frac{112 \times 100}{90} = ` \frac{1120}{9}$

$\therefore$ Required ratio $= 100 : \frac{1120}{9}$

$= 900 : 1120 = 45 : 56$

Shortcut Method:

$\text{Marked price} = \text{Cost Price} \times \frac{100 + \text{Profit}\%}{100 - \text{Discount}\%}$

$\text{Required ratio} = \text{Cost Price} : \text{Cost Price} \times \frac{112}{90}$

$= 90 : 112 = 45 : 56$

4. (b) C.P. of bicycle $= \frac{100}{114} \times 2850 = ` 2500$

S.P. for a profit of 8% $= \frac{108}{100} \times 2500 = ` 2700$

5. (d) If the S.P. of article be ` x,

then its CP $= x - \frac{x}{4} = ` \frac{3x}{4}$

$\therefore \text{Gain}\% = \frac{\frac{x}{4}}{\frac{3x}{4}} \times 100 = \frac{100}{3} = 33\frac{1}{3}\%$

6. (b) If the CP = ` 100, then SP = ` 120 and gain = ` 20

$\text{Gain}\% = \frac{20}{120} \times 100 = \frac{50}{3} = 16\frac{2}{3}\%$

7. (d) If the CP of each book be ` 1, then

SP of 20 books = ` 15

CP of 20 books = ` 20

$\therefore L\% = \frac{20 - 15}{20} \times 100 = 25\%$

8. (c) Let CP = 100

P = 200

SP = CP + P = 300

$\frac{CP}{SP} = \frac{100}{300} = \frac{1}{3} = 1 : 3$

9. (a) Let the marked price be ` x.

$\therefore$ In case I, SP = ` $\frac{70x}{100}$

Single discount equivalent to successive discounts of 20% and 10%.

$= \left(20 + 10 - \frac{20 \times 10}{100}\right)\% = 28\%$

$\therefore$ S.P. in this case = ` $\frac{72x}{100}$

$\therefore \frac{72x}{100} - \frac{70x}{100} = ` 72$

$\Rightarrow \frac{2x}{100} = 72$

$\therefore x = \frac{72 \times 100}{2} = ` 3600$

10. (b) Single equivalent discount for successive discounts of 10% and 20%.

$= \left(10 + 20 - \frac{20 \times 10}{100}\right)\% = 28\%$

Single equivalent discount for 28% and 30%

$= \left(28 + 30 - \frac{28 \times 30}{100}\right)\% = 49.6\%$

Shortcut Method:

Let marked price be 100%

$\text{Final discount} = 100 - 100 \times \frac{100 - D_1}{100} \times \frac{100 - D_2}{100} \times \ldots$

Here D_1, D_2, D_3 ..... are successive discounts.

$\text{Required value} = 100 - 100 \times \frac{90}{100} \times \frac{80}{100} \times \frac{70}{100} =$

$100 - 50.4 = 49.6\%$.

11. (d) Net increase percentage

$= \left(10 + 20 + \frac{20 \times 10}{100}\right)\% = 32\%$

$\therefore x \times \frac{132}{100} = 33 \Rightarrow x = \frac{33 \times 100}{132} = ` 25$

12. (a) Let the marked price of the article be ` x.

$\therefore x \times \frac{90}{100} = \frac{450 \times 120}{100}$

$\Rightarrow \frac{9x}{10} = 540$

$\Rightarrow x = \frac{540 \times 10}{9} = ` 600$

13. (b) Single equivalent discount

$= \left(x + y - \frac{xy}{100}\right)\% = \left(20 + 15 - \frac{20 \times 15}{100}\right)\% = 32\%$

14. (a) Let the C.P. of each article be ` 1.

$\therefore$ C.P. of articles = ` 10

and S.P. of 10 articles = ` 11

$\therefore$ Profit percent $= \frac{11 - 10}{10} \times 100 = 10\%$

15. (c) Difference in discount = 1%

$\frac{1}{100} \times x = 15$

x = 1500

16. (a) Average cost of $= \frac{10+14}{2} = 12$

QP = 13

$P\% = \frac{13-12}{12} \times 100 = 8\frac{1}{3}$

17. (b) The sum of cost prices of two horses is ` x. One of them is sold at a loss of a% and other is sold at a gain of b% and their S.P. is same.

∴ C.P. of horse sold at a loss of a%

$= \frac{100+b}{200-a+b} \times x = \frac{100+15}{200-20+15} \times 19500$

$= \frac{115}{195} \times 19500 = ` 11500$

∴ C.P. of second article = ` 8000

Alternate Method:

C.P of first horse $\times \frac{80}{100}$ = C.P of second horse $\times \frac{115}{100}$

C.P of first horse : C.P of second horse = 115 : 80 = 23:16

C.P of first horse $= 19500 \times \frac{23}{39} = 11500$

C.P of seond horse = 19500 – 11500 = 8000

18. (d) Let the S.P. of the article = ` 100

∴ C.P. = ` 40

∴ Required percentage $= \frac{100}{40} \times 100 = 250\%$

19. (b) Let the original price of sugar be ` x/kg.

∴ New price = ` $\frac{9x}{10}$ /kg

$\therefore \frac{270}{\frac{9x}{10}} - \frac{270}{x} = 1$

$\Rightarrow \frac{300}{x} - \frac{270}{x} = 1 \Rightarrow \frac{30}{x} = 1$

$\Rightarrow x = ` 30/kg$

20. (b) Percentage decrease $= \frac{25}{125} \times 100 = 20$

21. (c) Cost price of first article $= 4000 \times \frac{100}{125} = 3200$

Total cost price of both articles = Total selling price of both articles = 4000 + 4000 = 8000

Cost price of second articles = 8000 – 3200 = 4800

Selling price of second articles = 4000

Loss on second articles = 4800 – 4000 = 800

Required $\% = \frac{800 \times 100}{4800} = \frac{50}{3} = 16\frac{2}{3}\%$

22. (c) Let SP = 100

Loss% on SP = 20%

CP = 100 + 20 = 120

Loss % of CP $= \frac{20}{120} \times 100 = \frac{50}{3} = 16\frac{2}{3}\%$

23. (b) Let CP = x, Total ` = 600, Sugar bought

$= \frac{600}{x}$

ATQ

$\frac{80x}{100}\left[\frac{600}{x} + 5\right] = 600$

480 + 4x = 600

4x = 120

x = 30

24. (b) Percentage increase $= \frac{7.50-6}{6} \times 100 = 25$

∴ Percentage decrease in consumption

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

25. (a) MP = 275

SP after discount of 5% $= \frac{95}{100} \times 275$

CP where P% of 4.5 $= \frac{100}{104.5} \times \frac{95}{100} \times 275 = ` 250$

26. (d) Single equivalent discount for 36% and 4%

$= \left(36 + 4 - \frac{36 \times 4}{100}\right) = (40 - 1.44)\% = 38.56\%$

∴ Required difference = 1.44% of 500

$= \frac{500 \times 1.44}{100} = ` 7.20$

27. (b) Percentage profit $= \frac{15-12}{12} \times 100 = 25\%$

28. (a) Marked price of article = ` 100 (let)

∴ C.P. of article = ` 64

∴ S.P. of article = ` 88

∴ Profit per cent $= \frac{88-64}{64} \times 100 = 37.5\%$

29. (c) Let he buyes 15 eggs.

∴ CP of 15 eggs = ` 25

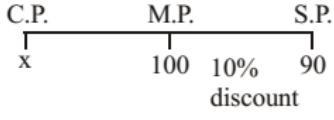
∴ SP of 15 eggs = ` 36

∴ Gain = 36 – 25 = ` 11

∵ ` 11 ≡ 15 eggs

∴ ` 143 $\equiv \frac{15}{11} \times 143 = 195$ eggs.

30. (c)



Let cost price (C.P.) = ` x
& Marked price (M.P.) = ` 100

$$x \times \frac{108}{100} = 90$$

$$x = \frac{90 \times 100}{108}$$

Cost price : Marked price

$$\frac{90 \times 100}{108} : 100 = 5 : 6$$

Shortcut Method:

$$M.P = C.P \times \frac{100 + Profit\%}{100 - Discount\%}$$

$$C.P : M.P = (100 - 10) : (100 + 8) = 90 : 108 = 5 : 6$$

31. (c) $C.P. = \frac{100}{(100+5\%)} \times 21000$

C.P = ` 20000
New profit = 15%

$$New\ S.P = \frac{(100+15\%)}{100} \times 20000 = ` 230000$$

∴ To get 15% profit he has to sell an article at ` 23000.

32. (b) 2 cycles – 1500
By options,

600 ↓ +20% → 720 900 ↓ –20% → 720

Shortcut Method:

$$\text{Cost price of first cycle} \times \frac{120}{100} = \text{cost price of second cycles} \times \frac{80}{100}$$

C.P of first cycle : C.P of second cycle = 2 : 3

$$C.P \text{ of first cycle} = 1500 \times \frac{2}{5} = 600$$

C.P of second cycle = 1500 – 600 = 900

33. (d) In such type of question,

$$\text{Required \% loss} = \frac{(25)^2}{100}\%$$

$$= \frac{625}{100}\% = 6.25\% = 6\frac{1}{4}\%$$

34. (c) Required % earned by A

$$= \left\{100 \times \frac{(100-5)}{100} \times \frac{(100+20)}{100} - 100\right\}\%$$

$$= \left\{100 \times \frac{95}{100} \times \frac{120}{100} - 100\right\}\%$$

$$= (114 - 100)\% = 14\%$$

35. (d) Let MP = 100
So, SP = 100 – 25% of 100
= 100 – 25 = 75

$$\text{So, Profit percent} = \frac{100-75}{75} \times 100$$

$$= \frac{25}{75} \times 100\% = \frac{1}{3} \times 100 = 33\frac{1}{3}\%$$

36. (a) Printed price = ` 320, $d_1 = 10\%$
Let $d_2 = x\%$, Amount actually paid = ` 244.80

$$\text{So, amount actually paid} = \left(1 - \frac{10}{100}\right)\left(1 - \frac{x}{100}\right) \times 320$$

$$244.80 = \frac{90}{100} \times \frac{(100-x)}{100} \times 320$$

$$100 - x = \frac{244.80 \times 100 \times 100}{90 \times 320} = 85 \Rightarrow x = 15\%$$

37. (d) Cost to A $\xrightarrow{10\%\uparrow}$ cost to B $\xrightarrow{5\%\uparrow}$ cost to C

$$\Rightarrow \text{Cost to A} \times \frac{110}{100} \times \frac{105}{100} = ` 462$$

$$\Rightarrow \text{Cost to A} = \frac{462 \times 100 \times 100}{110 \times 105} = ` 400$$

38. (a) ∵ 30% ≡ ` 30
∴ 100% ≡ ` 100
∴ New S.P. = 100 – 30 = ` 70

39. (d) $\text{Effective profit percent} = \left(20 + 25 + \frac{20 \times 25}{100}\right) = 50\%$

∴ Original cost price

$$= \frac{100}{150} \times 1200 = ` 800$$

40. (b) Difference of P% and L% = 30 – (– 10) = 40%

$$\frac{40}{100}x = 80$$

$$x = 200$$

41. (c) C.P. of article = ` 100

$$\therefore \text{Marked price} = \frac{100 \times 120}{90} = ` \frac{400}{3}$$

$$\therefore 85\% \text{ of } \frac{400}{3} = \frac{400}{3} \times \frac{85}{100} = ` \frac{340}{3}$$

$$\text{Gain} = \frac{340}{3} - 100 = \frac{40}{3} = 13\frac{1}{3}\%$$

42. (d) $\text{C.P. of 9 articles} = \frac{100}{96} = ` \frac{25}{24}$

∴ S.P. for a gain of 44 %

$$= \frac{25}{24} \times \frac{144}{100} = ` \frac{3}{2}$$

$$\therefore \text{Required number of articles} = 9 \times \frac{2}{3} = 6$$

43. (c) If the C.P.of machine by ` x, then

$$x \times \frac{110}{100} = \frac{27500 \times 90}{100}$$

$$\Rightarrow \frac{11x}{10} = 275 \times 90$$

$$\Rightarrow x = \frac{275 \times 900}{11} = ` 22500$$

44. (b) C.P. of 20 articles $= \frac{100}{120} = ` \frac{5}{6}$

$\therefore$ Number of articles bought for ` 1.

$$= \frac{6}{5} \times 20 = 24$$

45. (a) Let CP = ` 100
Then, S.P = ` 117
Let marked price be Rs x.

Then, 90% of $x = 117 \Rightarrow x = \left(\frac{117 \times 100}{90}\right) = 130$

$\therefore$ Marked price = 30% above C.P.

46. (b) $S.P = C.P\left(\frac{80}{100}\right) \Rightarrow S.P = \frac{4}{5}C.P$ ...(1)

$$S.P + 12 = C.P\left(\frac{110}{100}\right) \Rightarrow S.P = \frac{11}{10}C.P - 12 \quad ...(2)$$

From eqn. (1) and (2)

$$\frac{4}{5}C.P = \frac{11}{10}C.P - 12$$

$$\Rightarrow \frac{11}{10}C.P - \frac{4}{5}C.P = 12 \Rightarrow C.P = ` 40$$

47. (a) The trader professes to sell 1200 gm but sells only 1000 gm.
So profit = 20%
Markup = 10%

$$\text{Total profit} = 10 + 20 + \frac{10 \times 20}{100} = 32\%$$

48. (a) C.P. = ` 450; profit = 20%

$$\therefore S.P. = \frac{(100 + 20)}{100} \times 450 = ` 540$$

Let the list price of the wrist watch be ` x.

Then discount @ 10% = ` $x \times \frac{10}{100} = ` \frac{x}{10}$

$$\therefore S.P. = x - \frac{x}{10} = ` \frac{9}{10}x$$

According to quesiton, $\frac{9x}{10} = 540$

$$x = \frac{540 \times 10}{9} = ` 600$$

49. (c) Single discount $= x + y + \frac{xy}{100}$

$$= -70 - 30 + \frac{(-70 \times -30)}{100} = -100 + 21 = -79\%$$

'–' denotes discount. Hence, single discount equivalent to 79%

50. (a) Solving this type of question by short cut.

$$\text{Net profit\%} = x + y + \frac{xy}{100}$$

$$17\% = -10 + y + \frac{(-10) \times y}{100} \quad [\therefore \text{'–' for dicount}]$$

$$27 = y - \frac{y}{10} \Rightarrow 27 = \frac{10y - y}{10}$$

$$27 \times 10 = 9y$$

$$y = 30\%$$

Hence, He must mark his goods 30% higher than their cost price.

51. (b) Let us consider a packet or rice marked 1kg. It's actual weight is 80% of 1000 gm = 800 gm
Let C.P. of each gm be ` 1.
Then, C.P. of this packet = ` 800
S.P. of this packet = 110% of C.P. of 1kg

$$= \frac{110}{100} \times 1000 = ` 1110$$

$$\therefore \text{Gain \%} = \frac{(1100 - 800)}{1100} \times 100 = 37.5\%$$

52. (c) C.P. of a radio = ` 600
New C.P. after adding transportation charges

$$= ` (600 + 5\% \text{ of } 600) = ` \left(600 + \frac{5}{100} + 600\right) = ` 630$$

$$S.P. = \left(\frac{100 + \text{Profit\%}}{100}\right) \times C.P$$

$$= \frac{100 + 15}{100} \times 630 = \frac{115}{10} \times 63 = ` 724.50$$

53. (a) $S.P = \frac{(100 - loss\%)}{100} \times C.P_1$

$$600 = \frac{(100 - 10)}{100} \times CP_1$$

$$\therefore CP_1 = \frac{100 \times 600}{90}$$

To make a gian of 20%, the S.P. of Fan should be

$$\frac{(100 + gian\%)}{100} \times CP_1$$

$$\therefore S.P = \frac{(100 + 20)}{100} \times \frac{100 \times 600}{90} = \frac{120}{90} \times 600 = 800$$

Hence, S.P. should be ` 800.

54. (b) Percentage profit $= \frac{250 - 200}{200} \times 100 = 25\%$

55. (a) If the C.P. of article be ` x, then

$$x \times \frac{116}{100} + 200 = \frac{x \times 120}{100}$$

$\Rightarrow x \times \frac{4}{100} = 200$

$\Rightarrow x \times \frac{200 \times 100}{4} = ` 5000$

56. (b) CP of 1000 gm tea $= 18 \times 7 + 13 \times 3$

$= ` (126 + 39) = ` 165$

CP of 100 g $= ` 16.5$

S.P. of 100 g $= ` 18.15$

Profit $= ` (18.15 - 16.5) = ` 1.65$

$\%$ gain $= \frac{1.65}{16.5} \times 100 = 10\%$

57. (a) Let the labelled price be $` x$

Now, C.P $= \frac{100}{(100 + \text{profit } \%)} \times S.P$

C.P $= \frac{100}{(100 + 25)} \times 8750 = ` 7000$

Now, (1 – 30% concession) label price = C.P

$\left(1 - \frac{30}{100}\right)x = 7000$

$\frac{70}{100}x = 7000$

$x = \frac{7000 \times 100}{70}$

$x = ` 10,000$

58. (c) $` 150 + \frac{20}{100} \times 150 = ` 180$

S.P $= ` 180$

59. (a) Least cost price $= ` (150 \times 15) = ` 2250$

Greatest selling price $= ` (350 \times 15) = ` 5250$

Required profit $= ` (5250 - 2250)$ ` 3000

60. (b) Net discount $= \left(5 + 5 - \frac{25}{100}\right)\% = 9\frac{3}{4} = \frac{39}{4}\%$

$\therefore$ S.P. $= 80 \times \frac{361}{400} = ` 72.2$

61. (d) First discount $= \frac{1600 \times 10}{100} = ` 160$

Price after it $= 1600 - 160 = ` 1440$

$\therefore \frac{1440 \times x}{100} = 1440 - 1224 = 216$

$\therefore x = \frac{216 \times 100}{1440} = 15\%$

62. (b) (a) Net discount for 20% and 15%

$= \left(20 + 15 - \frac{20 \times 15}{100}\right)\% = 32\%$

Net discount for 32% and 10%

$= \left(32 + 10 - \frac{32 \times 10}{100}\right) = 38.8\%$

(b) Net discount for 25% and 12%

$= \left(25 + 12 - \frac{25 \times 12}{100}\right) = 34\%$

Net discount for 34% and 8%

$= \left(34 + 8 - \frac{34 \times 8}{100}\right)\% = 42 - 2.72 = 39.28\%$

63. (d) C.P. of article $= \frac{170 \times 100}{85} = ` 200$

$\therefore$ Required S.P. $= \frac{200 \times 120}{100} = ` 240$

64. (d) Marked price of a ratio set

$= \frac{400 \times 130}{100} = ` 520$

S.P. $= \frac{520 \times 92}{100} = ` 478.4$

$\therefore$ Gain percent $= \frac{78.4}{100} \times 100 = 19.6\%$

65. (a) Percentage decrease

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

66. (a) Let 20 apples of each type be bought.

C.P. of 40 apples

$= \left(20 \times \frac{10}{4} + 20 \times \frac{10}{5}\right) = ` 90$

Total S.P. $= \frac{40 \times 20}{9} = ` \frac{800}{9}$

Loss $= 90 - \frac{800}{9} = \frac{10}{9}$

$\therefore$ Loss per cent $= \frac{\frac{10}{9}}{90} \times 100 = \frac{100}{81} = 1\frac{19}{81}\%$

Alternate Method:

Cost price of 2 apples 1 of each typle $= \frac{10}{4} + \frac{10}{5} = \frac{9}{2}$

Selling price of 2 apples $= 2 \times \frac{20}{9} = \frac{40}{9}$

Loss $= \frac{9}{2} - \frac{40}{9} = \frac{1}{18}$

Required $\% = \frac{1}{18} \times 100 \times \frac{2}{9} = 1\frac{19}{81}\%$

Or, C.P : S.P $= \frac{10}{4} + \frac{10}{5} : 2 \times \frac{20}{9} = 81 : 80$

Loss $\% = \frac{1}{81} \times 100 = 1\frac{19}{81}\%$

67. (b) C.P. of the article $= \frac{100}{120} \times 300 = ` 250$

On selling at ` 235,

Loss per cent $= \frac{15}{250} \times 100 = 6\%$

68. (d) $\because$ S.P. of a dozen pairs of socks

$= \frac{180 \times 80}{100} = ` 144$

$\therefore$ S.P. of 1 pair of socks $= \frac{144}{12} = ` 12$

$\therefore$ No of pairs available for

` $48 = \frac{48}{12} = 4$

69. (a) Discount $= 12000 - 10500 = ` 1500$

If the discount per cent be x,

then

$\frac{12000 \times x}{100} = 1500 \Rightarrow x = \frac{1500 \times 100}{12000} = 12.5\%$

70. (b) If the C.P. of radio be ` x,

then

$\frac{x \times 108}{100} = \frac{480 \times 90}{100} = 432$

$\Rightarrow x = \frac{432 \times 100}{108} = ` 400$

If no discount is allowed,

Gain $= 480 - 400 = ` 80$

Gain per cent $= \frac{80}{400} \times 100 = 20\%$

71. (d) Let the marked price be ` x.

$\because$ C.P. $= (x - 25\% \text{ of } x) = \frac{3}{4}x$

$\Rightarrow$ S.P. $= \left(\frac{3x}{4} + 10\% \text{ of } \frac{3x}{4}\right) = \frac{33}{40}x$

But, $\frac{33}{40}x = 660 \Rightarrow x = 800.$

72. (a) Let the marked price be ` x.

$\because$ S.P. $= (x - 25\% \text{ of } x) = \frac{3}{4}x$

But, S.P $= ` 525$

$\therefore \frac{3}{4}x = 525 \Rightarrow x = 700$

73. (c) **Ist case :**

$S.P = \frac{100 + \text{Profit}\%}{100} \times C.P.$

$\Rightarrow S.P. = \frac{\left(100 + \frac{25}{2}\right) \times C.P}{100}$

$\Rightarrow S.P = \frac{112.5}{100} CP$ ...(1)

IInd case :

$S.P = \frac{100 + \text{Profit }\%}{100} \times C.P.$

$\Rightarrow (S.P + 10) = \frac{100 + 15}{100} \times C.P.$

$\Rightarrow (S.P + 10) = \frac{115}{100} C.P$ ...(2)

Dividing equation (1) by (2)

$\frac{S.P}{S.P + 10} = \frac{112.5}{100}(C.P) \times \frac{100}{115(C.P)}$

$S.P = \left(\frac{112.5}{115}\right)(S.P + 10)$

$115\, S.P = 112.5\, SP + 1125$

$S.P = 450$

$\therefore \quad C.P = \frac{S.P \times 100}{112.5} = \frac{450 \times 100}{112.5} = 400$

Alternate Method:

Let cost price be 100%

1st selling price $= 100 + 12.5 = 112.5\%$

2nd selling price $= 100 + 15 = 115\%$

Difference $= 115 - 112.5 = 2.5\%$

$C.P \times \frac{2.5}{100} = 10 \qquad \therefore C.P = 400$

74. (c) If the C.P. of goods be ` 100, then

Marked price $= ` 120$

$\therefore$ S.P. $= \frac{120 \times 85}{100} = ` 102$

$\therefore$ Profit per cent $= 2\%$

75. (a) C.P. of the book $= ` x$

Printed price $= ` y$

$\therefore \frac{y \times 90}{100} = x \times \frac{112}{100}$

$\Rightarrow \frac{x}{y} = \frac{90}{112} = \frac{45}{56}$

76. (d) S.P. after a discount of 10% $= \frac{160 \times 90}{100} = ` 144$

Second discount $= 144 - 122.40 = ` 21.6$

If the second discount be x %, then

$\frac{144 \times x}{100} = 21.6 \Rightarrow x = \frac{21.6 \times 100}{144} = 15\%$

77. (c) C.P. of article $= ` x$

$\therefore$ First S.P. $= \frac{80x}{100} = ` \frac{4x}{5}$

Case II,

$\frac{4x}{5} + 100 = \frac{x \times 105}{100} = \frac{21x}{20}$

$$\Rightarrow \frac{21x}{20}-\frac{4x}{5}=100$$

$$\Rightarrow \frac{21x-16x}{20}=100$$

$$\Rightarrow 5x=2000$$

$$\Rightarrow x=\frac{2000}{5}=\text{`}\ 400$$

78. (c) If the original price of article be ` x, then

$$x\times\frac{80}{100}\times\frac{130}{100}=416$$

$$\Rightarrow x=\frac{416\times100\times100}{80\times130}=\text{`}\ 400$$

79. (c) Let C be the cost price of book

$$\text{Selling price, } S=C+\frac{10}{100}\times C=1.1C$$

$$\text{If cost price is 6\% less, } C'=C-\frac{4}{100}C=.96C$$

$$S'=1.1C+6$$

$$\frac{S'-C'}{C'}\times100=18\frac{3}{4}$$

$$\frac{1.1C+6-0.96C}{0.96C}\times100=\frac{75}{4}$$

$$\frac{0.14C+6}{0.96C}=\frac{3}{16}$$

$$14C+600=18C$$

$$4C=600$$

$$C=\text{`}\ 150$$

Alternate Method:

Let Cost price of book be x

$$\text{First S.P}=\frac{110x}{100}$$

$$\text{New Cost price}=x\times\frac{96}{100}=\frac{96x}{100}$$

$$\text{New Selling price}=x\times\frac{96}{100}\times\frac{475}{400}=\frac{110x}{100}+6$$

$$\frac{114x}{100}-\frac{110x}{100}=6$$

$$\frac{4x}{100}=6 \qquad \therefore x=150$$

80. (a) Cost price of watch on which he get 10% Profit,

$$C_1=99\times\frac{100}{110}=90$$

Cost Price of watch on which he losses 10%,

$$C_2=\frac{99\times100}{90}=110$$

$$\text{Net loss\%}\ \frac{(110+90)-(99+99)}{(110+90)}\times100$$

$$=\frac{200-198}{200}\times100=1\%$$

81. (d) Person bought the article for $\frac{1035}{(100-8)}\times100=\text{`}\ 1{,}125$

82. (c) Let M be the market price and C be the cost price of the cycle.

$$\text{Selling price, } S=M-\frac{25}{100}\times M=\frac{75}{100}M \text{ or } \frac{3}{4}M$$

$$\frac{S-C}{C}\times100=20$$

$$\frac{\frac{3}{4}M-C}{C}\times100=20$$

$$\frac{3M}{4C}=\frac{6}{5}$$

$$\Rightarrow C=\frac{5}{8}M$$

$$\text{Also, } \frac{3}{4}M-C=360$$

$$\frac{3}{4}M-\frac{5}{8}M=360$$

$$\frac{M}{4}\left[3-\frac{5}{2}\right]=360$$

$$M=360\times4\times2=\text{`}\ 2{,}880$$

Alternate Method:

$$\text{Cost price}=360\times\frac{100}{20}=1800$$

Marked price

$$=C.P\times\frac{100+\text{Profit\%}}{100-\text{Discount\%}}=1800\times\frac{120}{75}=2880$$

83. (c) Selling price of car; S.P. $=2,10,000-\frac{5}{100}\times2,10,000$

$=1,99,500$

Sales tax charged is 10%

$$\text{Total cost for Rita}=1,99,500+\frac{10}{100}\times1,99,500$$

$=\text{`}\ 2,19,450$

84. (b) Let M be the marked price.

$$M-\frac{10}{100}\times M=1800$$

$$M=\frac{1800}{90}\times100=2000$$

Cost Price, C = 1800 – 200 = 1600
If no discount is given
Profit ` 2000 – ` 1600 = ` 400

85. (a) $\text{Profit}\% = \frac{1000-900}{900} \times 100 = 11\frac{1}{9}\%$

86. (b) Selling price of 5 apples = ` 42.50

$$\text{Selling price of 60 apples} = \frac{42.5}{5} \times 60 = 510$$

$$\text{C.P} + \text{Profit} = \text{S.P}$$

$$\text{C.P} + \frac{20}{100} \times \text{C.P} = 510$$

$$\text{C.P.} = \frac{510}{120} \times 100 = ` 425$$

87. (c) Let original price of sewing machine be ` x

$$\text{Retailer bought it at } x - \frac{15}{100}x = 0.85x$$

$$0.85x + \frac{15}{100} \times 0.85x = 1955$$
$$\Rightarrow 85x + 12.75x = 1955 \times 100$$
$$\Rightarrow 97.75x = 195500$$
$$\therefore x = \frac{195500}{97.75} = 2000$$

$$\text{Discount is } \frac{15}{100} \times 2000 = ` 300$$

88. (a) Selling price = Marked price – Discount
= 200 – 20% of 200 = 160
Cost Price = 160 – 16 = 144

$$\text{Gain}\% = \frac{16}{144} \times 100 = \frac{100}{9}\% = 11\frac{1}{9}\%$$

89. (d) Marked Price, M = 2C, where C is cost price for 15%

$$\text{gain, S.P.} = C + \frac{15}{100}C = 1.15C$$

Let discount be x%

$$2C - \frac{x}{100} \times 2C = 1.15C \Rightarrow x = 42.5\%$$

> **Alternate Method:**
> Let Cost Price be 100
> Marked price = 100 × 2 = 200
> Selling price = 115
> Discount = 200 – 115 = 85
>
> $$\%\text{ of Discount} = \frac{85 \times 100}{200} = 42.5\%$$

90. (c) Let Cost Price of watch be ` x

$$\text{S.P} = x - \frac{5}{100}x = .95x$$

If S.P = 0.95x + 56.25 then profit = 10%

$$\frac{0.95x + 56.25 - x}{x} \times 100 = 10$$

$$\frac{56.25}{x} - 0.05 = \frac{1}{10}$$

$$\frac{56.25}{x} = \frac{1}{10} + \frac{5}{100} = \frac{3}{20}$$

$$x = 56.25 \times \frac{20}{3} = 375$$

91. (c) Let marked price of goods be ` 100.

$$\text{Selling price of goods} = 100 - \frac{10}{100} \times 100 = ` 90$$

Cost price of goods is 80% of its selling price

$$\text{C.P.} = \frac{80}{100} \times 90 = 72$$

Profit on goods = (90 – 72) = ` 18

$$\text{Profit}\% = \frac{18}{72} \times 100 = 25\%$$

92. (a) Let marked price of the instrument be ` x

$$\text{Selling price, S.P.} = x - \frac{20}{100}x = 0.8x$$

$$\text{Cost price, C.P.} = \text{C.P.} + \frac{25}{100}\text{C.P.} = 0.8x$$

$$\text{C.P.} = \frac{0.8 \times 100}{125} = \frac{16}{25}x$$

$$x = \frac{25}{16}\text{C.P.}$$

$$\text{Given that } \frac{25}{100}\text{C.P} = 150$$

$$\Rightarrow \text{C.P.} = \frac{150 \times 100}{25} = 600$$

$$\text{Marked price } x = \frac{25}{16} \times 600 = ` 937.50$$

93. (b) Let labelled price of T.V. be ` x

$$\text{Price after 20\% discount, } x - \frac{20}{100}x = 0.8x$$

$$\text{Price after 30\% discount, } x - \frac{30}{100}x = 0.7x$$

According to question
0.8x – 0.7x = 800
x = 800 × 10 = 8000

94. (b) Let ` 100 be the cost price for A.
S.P. for A = 100 + 20% of 100 = 120
S.P. for B = 120 – 15% of 120 = 102

$$\text{Profit}\% = \frac{102-100}{100} \times 100 = 2\%$$

95. (a) Marked price = 20 % above CP

$$= \frac{120}{100} \times \text{CP}$$

Discount = 10%

$\therefore$ S.P. $= \frac{100-10}{100} \times \frac{120}{100} \times CP$

$= 0.9 \times 1.2 \times CP = 1.08\,CP$

S.P. $= ` 216$

C.P. $= \frac{216}{1.08} = ` 200$

96. (c) C.P. $= ` 250$

S.P. $= ` 10$ per 50 g $= \frac{1000}{50} \times 10 = ` 200$

$\therefore$ Loss $= \frac{250-200}{250} \times 100 = 20\%$

97. (b) $CP = 0.75 \times MP$

$SP = MP + 40$

$1.4\,CP = M.P + 40$

$1.4\,(0.75)\,MP = M.P + 40$

$1.05\,MP = M.P. + 40$

$(1.05 - 1)\,MP = 40$

M.P. $= \frac{40}{0.05} = ` 800$

$\therefore$ CP $= 0.75$ M.P. $= 0.75 \times 800 = ` 600$

98. (d) C.P. $= ` 600$

Let number of apples thrown $= x$

So number of apples left $= 240 - x$

So S.P. $= (240 - x)\,3.50$

$= 840 - 3.5x$

So $840 - 3.5x - 600 = 198$

$240 - 3.5x = 198$

$x = \frac{42}{3.5} = 12$

So % age of apples thrown $= \frac{12}{240} \times 100 = 5\%$

99. (d) $SP = ` 450$

Loss $= 20\%$

$\therefore CP = 450 \times \frac{100}{100 - \text{loss}} = 450 \times \frac{100}{80} = ` 562.50$

SP for getting 20% gain $= 562.50 \times \frac{120}{100} = ` 675.$

100. (b) $CP = \frac{10}{12} = ` 0.833$

$SP = \frac{12}{12} = ` 1$

So, Gain% $= \frac{1 - 0.833}{0.833} \times 100$

$= \frac{0.167}{0.833} \times 100 \qquad = 20\%.$

101. (a) Let list price $= ` z$

So, Sale price (y) $= \frac{z(100-x)}{100} = z = \frac{100y}{100-x}$

102. (a) Equivalent discount of 2 successive discounts

$= A + B - \frac{A \times B}{100} = 20 + 10 - \frac{20 \times 10}{100}$

$= 30 - 2 = 28\%$

103. (d) $CP = ` 1500$

$SP = 1500 \times \frac{125}{100} = ` 1875$

Tax paid $= ` 75$

So, actual SP $= 1875 - 75 = ` 1800$

Net profit $= \frac{1800-1500}{1500} \times 100 = 20\%$

104. (a) $MP = SP \times \frac{100}{100 - \text{Discount}\%}$

$= 1200 \times \frac{100}{100-20} = 300 \times 5 = ` 1500$

105. (d) Successive discount can be given by $= x + y + \frac{xy}{100}$

$= -10 - 20 + \frac{(-10 \times -20)}{100} = -30 + 2 = 28\%$

Hence, the successive dicount in equal to 28%

106. (c) Let the second discount be x%. Then

$(100 - x)\%$ of 90% of $720 = 550.80$

$\Rightarrow \frac{100-x}{100} \times \frac{90}{100} \times 720 = \frac{55080}{100}$

$\Rightarrow (100 - x) = \frac{55080 \times 100}{90 \times 720} = 85$

$\Rightarrow x = 100 - 85 = 15\%$

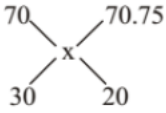
107. (c) S.P. of an article $= 20\%$ and 15% successive discount $\times$ marked price of an article

$3060 = \frac{80}{100} \times \frac{85}{100} \times$ marked price of an article

$\therefore$ Marked of an article

$= \frac{3060 \times 100 \times 100}{80 \times 85} = 4500$

108. (a) Solving by alligation



$x = \frac{70 \times 30 + 70.75 \times 20}{50} = \frac{2100 + 1415}{50} = 70.3$

Hence, cost price $= 70.3 \times 50 = ` 3515$

Selling price $= 80.5 \times 50 = ` 4025$

Required gain $= 4025 - 3515 = 510$

109. (d) 1st successive discount final rate

$= -x - y + \frac{xy}{100} = -40 - 30 + \frac{40 \times 30}{100}$

$= -70 + 12 = -58\%$

2nd successive discount final rate

$= -45 - 20 + \frac{45 \times 20}{100} = -65 + 9 = -56\%$

Let mare price be MP

then $MP \times \frac{58}{100} - MP \times \frac{56}{100} = 12$

$\Rightarrow \frac{MP \times 2}{100} = 12$

MP = ` 600

110. (d) $100 \xrightarrow[-10]{10\downarrow} 90 \xrightarrow[-18]{20\downarrow} 72 \xrightarrow[-18]{25\%\downarrow} 54$

Required single discount = (100 – 54)% = 46%

111. (a) Now according to question.

$100 \times CP = 60 \times SP$

$\Rightarrow \frac{SP}{CP} = \frac{100}{60} = \frac{5}{3}$

Both sides substract 1

$\Rightarrow \frac{SP - CP}{CP} = \frac{5-3}{3} = \frac{2}{3}$

Percentage loss $= \frac{2}{3} \times 100 = 66\frac{2}{3}\%$

112. (d) Now, Let discount be x%

$975 \times \frac{(100-x)}{100} = 897$

$\Rightarrow 100 - x = \frac{89700}{975}$

$\Rightarrow x = \frac{97500 - 89700}{975} = \frac{7800}{975} = 8\%$

113. (a) For 3 discont 20%, 10% and 5%

Now take 20% and 10%

$20 + 10 - \frac{20 \times 10}{100} = 30 - 2 = 28\%$

Now take 28 % and 5%

$28 + 5 - \frac{28 \times 5}{100} = 33 - 1.4 = 31.6\%$

114. (b) Let CP of 8 banana = ` 8

CP of 6 banana = ` 6

Sp of 6 banana = ` 8

Profit % $= \frac{2}{6} \times 100 = 33\frac{1}{3}\%$

115. (c) Marked price = 1200, Discount % = 5% Selling price = ?

Selling price $= \frac{95}{100} \times 1200 =$ ` 1140

116. (c) Successive discount = 15, 20, 25

net discount when, 15, 20 taken together

$15 + 20 - \frac{15 \times 20}{100} = 35 - 3 = 32$

Now taking 22 and 25

$32 + 25 - \frac{25 \times 32}{100}$

$57 - \frac{800}{100}$

$57 - 8 = 49\%$

117. (b) Let CP = 10, SP = 11

P % $= \frac{1}{10} \times 100 = 10\%$

118. (b) Market Price = 7500, Discount = 6%

Selling Price $= \frac{94}{100} \times 7500 = 7050$ `

119. (c) Let Selling Price = 100 Loss = 20%

Cost price = 120

Loss% of cost price $= \frac{20}{120} \times 100 = 16\frac{2}{3}\%$

120. (b) Let C.P. = x

then S. P. $= \frac{105}{100}x$

If new C.P. $= \frac{95}{100}x$

then S.P. $= \frac{105x - 200}{100}$

Profit = 10% of $\frac{95}{100}x = \frac{95}{100}x$

Profit = SP – CP

$\frac{95}{1000}x = \frac{105x - 200}{100} - \frac{95}{100}x$

$\frac{95}{1000}x = \left(\frac{105x - 200 - 95x}{100}\right)$

$\frac{95}{1000}x = \frac{10x - 200}{100}$

$95x = 100x - 2000$

$-5x = -2000$

x = ` 400

C.P. = ` 400

121. (d) Let C.P. = ` 100

Then, M.P. = ` 120

S.P. = 90% of ` 120 = ` 108

Gain = 8%

122. (d) Let selling price be 100

Now selling price $= 100 \times \frac{3}{4} = 75$

Loss = 10%

Cost price $= 75 \times \frac{100}{90} = \frac{250}{3}$

Profit at original price $= 100 - \frac{250}{3} = \frac{50}{3}$

% Profit $= \frac{50}{3} \times 100 \times \frac{3}{250} = 20\%$

123. (a) Marked price of the wrist watch = ` x

$$\frac{90}{100}x = \frac{1200 \times 120}{100}$$

$$x = \frac{1200 \times 120 \times 100}{90 \times 100}$$

x = ` 1600

124. (b) $\because$ $MP = \frac{SP \times 100}{(100 - Discount)}$

$$= \frac{3168 \times 100}{100 - 34}$$

$$= \frac{3168 \times 100}{66} \Rightarrow 4800$$

125. (d) Let cost price of an article = 100

$\therefore$ Profit = 170

$\therefore$ S.P. = 100 + 170 = 270

Now,

Cost price increased by 20%, then

Cost price = 120

S.P. = 270

$\therefore$ Profit = 270 – 120 = 150

$\therefore$ Profit percentage $= \frac{150}{120} \times 100 = 125\%$

126. (c) Let the mark price be x.

after first discount, price $= x \times \frac{80}{100}$

after the second discount, price

$$= x \times \frac{80}{100} \times \frac{65}{100}$$

According to question,

$$x \times \frac{80}{100} \times \frac{65}{100} = 50700$$

$\therefore$ $x = \frac{50700 \times 100 \times 100}{80 \times 65} = 97500.$

$\therefore$ marked price of article is ` . 97500.

127. (b) Let the cost price of pen = x

$\therefore$ Number of pens he can purchase for ` 100 with the actual price of pen $= \frac{100}{x}$

Number of pens he can purchase for ` 100 with the reduced price of pen

$$\Rightarrow \frac{100}{\left(\frac{80x}{100}\right)} \Rightarrow \frac{100}{\frac{4x}{5}} = \frac{125}{x}$$

According to question,

$$\frac{125}{x} - \frac{100}{x} = 10$$

$$\frac{25}{x} = 10$$

$$10x = 25$$

$\therefore$ $x = \frac{25}{10} = 2.5$

$\therefore$ New price of pen $= 2.5 \times \frac{80}{100} = 2$

128. (c) First discount $= \frac{4800 \times 10}{100} = 480$

Price after it = 4800 – 480 = 4320

$\therefore$ $\frac{4320 \times x}{100} = 4320 - 3672$

$\therefore$ $x = \frac{648 \times 100}{4320} = 15\%$

$\therefore$ Second discount = 15%

129. (d) Let S.P. of each pineapple = Re 1

$\therefore$ Gain = 50, SP = 175

$\therefore$ CP = (175 – 50) = 125

$\therefore$ Required percentage $= \frac{50}{125} \times 100 = 40\%$

130. (b) Let C.P of an article = 100

$\therefore$ M.P of an article = 120

After discount 5% on marked price, then

S.P of an article = 120 × 0.95 = 114.

$\therefore$ Profit = 114 – 100 = 14

$\therefore$ Profit percentage $= \frac{14}{100} \times 100 = 14\%$

131. (c) According question,

C.P of a pen $= \frac{1}{25}$

S. P of a pen $= \frac{1}{15}$

$\therefore$ profit = $= \frac{1}{15} - \frac{1}{25} = \frac{5-3}{75} = \frac{2}{75}$

$\therefore$ Profit percentage $= \frac{2}{75} \times \frac{25}{1} \times 100$

$$= \frac{200}{3} = 66\frac{2}{3}\%$$

132. (c) Marked price of each item = 500

No. of items = 5

$\therefore$ Total marked price = 500 × 5 = 2500

Total discount $= 2 \times 500 \times \frac{8}{100} + 3 \times 500 \times \frac{16}{100} = 320$

$\therefore$ Effective discount $= \frac{320}{2500} \times 100$

= 12.8%

133. (b) Let the price of the article = ` 100

New Price = 100 – 33 = 67

Therefore the new price must be increased by

$$\frac{(100-67) \times 100}{67} = \frac{3300}{67} = 49.25\%$$

134. (a) Let selling price of each watches = ` 1

$\therefore$ Selling price of 13 watches = 13

$\because$ Profit = 3 × selling pric of watches

= 3 × 1 = 3.

$\therefore$ Cost price of 13 wateres = (13 – 3) = 10

$\therefore$ Profit percentage $= \frac{3}{10} \times 100 = 30\%$

135. (b) CP = (20 × 14 + 40 × 10)

$\Rightarrow$ (280 + 400) = 680

Profit = 25%

$\because$ SP $= \frac{(100+25) \times 680}{100} = 850$

$\because$ SP of $\frac{1}{3}$ part of mixture = 20 × 12.5 = 250

$\therefore$ SP of remaining mixture = (850 – 250) = 600

$\therefore$ SP of remaining mixture per kg $= \frac{600}{40} = 15$ per kg.

136. (c) Let CP of an article = x

According to question,

$\frac{x \times 120}{100} - \frac{x \times 90}{100} = 75$

$\frac{12x}{10} - \frac{9x}{10} = 75$

3x = 750

$\therefore$ $x = \frac{750}{3} = 250$

$\therefore$ The cost price of an article = ` 250.

137. (c) M.P. of a fan = 150

Discount = 20%

Price of a fan after 20% discount

$\Rightarrow$ $150 - \frac{150 \times 20}{100} =$ ` 120

Let x% is additional discount

Then,

$120 - \frac{120 \times x}{100} = 108$

$\frac{120x}{100} = 120 - 108$

$\therefore$ $x = \frac{12 \times 100}{120} = 10\%$

$\therefore$ Additional discount = 10%

138. (c) Total CP of the mangoes = (100 × 45) + (200 × 40)

= 4500 + 8000 = 12500

Total SP of the mangoes = (300 × 45) = 13500

$\therefore$ Required profit percentage $= \frac{(13500 - 12500)}{12500} \times 100$

$= \frac{1000 \times 100}{12500} = 8\%$

139. (d) According to question,

Selling price of the TV set = ` 17940

% discount = 8% and % gain = 19.6%

Let the cost price be ` 100

Gain = ` 19.6

$\therefore$ SP = 100 + 19.6 = 119.6

If SP is 119.6, CP = 100

if SP is 17940, CP $= \frac{100}{119.6} \times 17940 = 15000$

Now, % discount = 8%

Marked price $= \frac{17940}{(100-8)} \times 100 = 19500$

if no discount is given, the selling price = 19500

$\therefore$ Profit = 19500 – 15000 = 4500

Therefore,

% Profit $= \frac{4500}{15000} \times 100 = 30\%$

So, the gain percent is = 30%

140. (c) Let C.P = ` 100 Then S.P = ` 120

Let marked price be x

Then,

80% of x = 120

$\therefore$ $x = \left(\frac{120 \times 100}{80}\right) = 150$

$\therefore$ Marked price = 50% above C.P.

141. (c) Let mark price be x.

According to question,

$x - \frac{x \times 22}{100} = 6552$

$\frac{78x}{100} = 6552$

$\therefore$ $x = \frac{6552 \times 100}{78} = 8400.$

$\therefore$ Marked price of the article = ` 8400.

142. (d) CP of a mango $= \frac{1}{15}$

Loss = 25%

$\therefore$ $SP = \frac{1}{15} \times \frac{75}{100} = \frac{1}{20}$

So, A man sold 20 mangoes for a rupee.

143. (b) SP of a fan = ` 1900

Loss = 5%

$\therefore$ $CP = \frac{1900 \times 100}{(100-5)} = \frac{1900 \times 100}{95} = 2000$

Now,

Gain = 20%.

Then,

$\therefore$ SP of a fan $= \dfrac{2000 \times 120}{100} = 2400$

$\therefore$ Selling price of a fan = ` 2400.

144. (a) Ratio of investment of A, B and C
$= 55000 : 65000 : 75000 = 11 : 13 : 15.$
Let the total profit is x.
then, profit amount that has to be distributed among

A, B and C $= x - x \times \dfrac{20}{100} = 0.8x$

Now, C's share $= \dfrac{15}{(11+13+15)} \times 0.8x = 27000$

$\dfrac{15}{39} \times 0.8x = 27000$

Total profit, $x = \dfrac{27000 \times 39}{15 \times 0.8} =$ ` 87,750.

145. (a) Selling price = Marked price $\times \left(\dfrac{100 - \text{discount}\%}{100}\right)$

$= 736 \times \left(\dfrac{100-25}{100}\right) = 552$

Now, cost price = Selling price $\times \dfrac{100}{(100 + \text{Profit}\%)}$

$= 552 \times \dfrac{100}{(100+20)} =$ ` 460

146. (c) Cost price of first article $= 9831 \times \dfrac{100}{(100+13)} = 8700$

On which gain is 13%

Cost price of second article $= 9831 \times \dfrac{100}{(100-13)} = 11300$

Total cost price of two article = 8700 + 11300 = 20000
Total selling price of two article = 9831 + 9831 = 19662
Overall loss = 20000 – 19662 = 338

Overall loss % $= \dfrac{338}{20000} \times 100 = 1.69\%$ loss

147. (c) Marked price of the article $= 100 + 100 \times \dfrac{25}{100} = 125.$

selling price to get 15 % profit

$= 100 + 100 \times \dfrac{15}{100} = 115.$

Let discount percent is x%

then, $125 \times \left(\dfrac{100-x}{100}\right) = 115$

$5\dfrac{(100-x)}{4} = 115$

$100 - x = \dfrac{115 \times 4}{5} = 92$

$x = 100 - 92 = 8\%$

148. (c) Cost price of one article $= 9720 \times \dfrac{100}{108} = 9000$

Cost price of other article $= 9720 \times \dfrac{100}{90} = 10800$

Total loss = + Cost Price – Selling Price
$= +9000 + 10800 - 2 \times 9720$
= ` 360

149. (b) Cost price of one article $= 962 \times \dfrac{100}{130} = 740$

Cost price of other article $= 962 \times \dfrac{100}{74} = 1300$

Loss $= (740 + 1300) - (962 + 962) = 116$

Loss% $= \dfrac{116}{2040} \times 100 = 5.7\%$ loss

150. (c) Marked price of an article is = 3040

Discount = 20% $= \dfrac{20}{100} = \dfrac{1}{5}$

So, Hence the selling price = 4 unit.
Marked price is 5 unit.
5 unit $\rightarrow$ 3040
1 unit $\rightarrow$ 608
Hence the selling price is $= 4 \times 608 =$ ` 2432.

151. (a) Raman's capital = ` 63000
Sanjay's capital = ` 42000
Total profit = ` 9000
as we know,
Capital × Time = Profit
So, Ratio of their investments

	Raman		Sanjay
Capital	63000	:	42000
Time	1 year	:	1 year
Profit	63000	:	42000
	3	:	2

Hence the Raman's share is

$\Rightarrow \dfrac{9000 \times 3}{5}$

$\Rightarrow 1800 \times 3 \Rightarrow$ ` 5400

152. (c) Ratio of the selling price to the cost price is = 4 : 5
Selling price is ` 80

Ratio, S.P. : C.P.
4 : 5
+1

Hence the loss is 1 unit
4 unit $\rightarrow$ 80
1 unit $\rightarrow$ 20
Hence the loss is $1 \times 20 =$ ` 20

153. (b) Let cost price be x

Profit = 720 – x

Loss = x – 360

According to the question

$$720 - x = \frac{1}{2}(x - 360)$$

$$1440 - 2x = x - 360$$

$$3x = 1800$$

$$x = \frac{1800}{3} = ` 600$$

154. (c) Let CP of an article = x

SP of an article = 0.9x

According to question,

$$0.9x + 332 = x + x \times \frac{20}{100}$$

$$\Rightarrow \quad 0.9x + 332 = 1.2x$$

$$\Rightarrow \quad 1.2x - 0.9x = 332 \Rightarrow 0.3x = 332$$

$$\therefore \quad x = \frac{332}{0.3}$$

$\therefore$ Original selling price = $0.9x$

$$= 0.9 \times \frac{332}{0.3} = 996$$

155. (a) According to question

Mark price of the article = 224

Discount = 28%

$$\therefore \quad \text{SP} = 224 - \frac{224 \times 28}{100} = 161.28$$

Now profit = 12%

$$\therefore \quad \text{Cost price} = \frac{161.28 \times 100}{(100 + 12)} = 144$$

156. (b) S.P. of an article to gain 20% = $\frac{320}{80} \times 120$

= ` 480

157. (b) Single equivalent discount

$$= 10 + 15 - \frac{10 \times 15}{100}$$

$$= 25 - 1.5$$

$$= 23.5\%$$

158. (d) $\frac{\text{S.P.}}{\text{C.P.}} = \frac{8}{7}$

$$\text{Profit \%} = \frac{1}{7} \times 100 = \frac{100}{7}$$

159. (b) Selling price = ` 2500

Loss = 20%

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

$$= 2500 \times \frac{100}{(100 - 20)} = ` 3125.$$

To get a loss of 30%

$$\text{Selling price} = 3125 \times \left(\frac{100 - \text{Loss \%}}{100}\right)$$

$$= 3125 \times \frac{(100 - 30)}{100} = ` 2187.5.$$

160. (c) Let cost price of the article is ` 100.

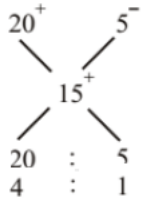
$$\text{Then, marked price} = 100 + 100 \times \frac{35}{100} = 135.$$

Selling price, when discount is 20%

$$= 135 \times \left(\frac{100 - 20}{100}\right) = 108.$$

$$\text{Percent gain} = \left(\frac{108 - 100}{100}\right) \times 100 = 8\%.$$

161. (c)



According to the question,

$5 \rightarrow 640$

$$1 \rightarrow \frac{640}{5} = 128$$

So, 128 kg rice was sold at 5% loss.

162. (d) Let the cost price of the goods is 100.

$$\therefore \quad \text{M.P. of the goods} = 100 \times \frac{130}{100} = 130$$

$$\therefore \quad \text{S.P of the goods} = 130 \times \frac{90}{100} = 117$$

So, he gains 17% profit.

In order to gain 6.5% more profit = 17 + 6.5

= 23.5%

Discount should be allowed

$$= \frac{(130 - 23.5)}{130} \times 100$$

$$= \frac{6.5}{130} \times 100 = 5\%$$

163. (a) New selling price after 24% less

$$= 3750 \times \frac{76}{100} = ` 2850$$

Hence, the original cost price of the article

$$= 2850 \times \frac{100}{114} = ` 2500$$

164. (a) Selling price of an article $= 25,500 \times \frac{85}{100} \times \frac{88}{100}$

$= \frac{255 \times 85 \times 88}{100}$

$= 51 \times 17 \times 22 =$ ` 19,074

165. (b) Let the cost price of article is $6x$

Then, selling price of the article $= 6x \times \frac{7}{6} = 7x$

$\therefore$ Gain Percentage $= \frac{(SP - CP)}{CP} \times 100$

$= \frac{7x - 6x}{6x} \times 100 = \frac{x}{6x} \times 100$

$= 16.67\%$

166. (a) Let A purchased the article in ` x.

Then,

According to the question:

$\Rightarrow x \times \frac{112}{100} \times \frac{91}{100} = 15288 \Rightarrow x = \frac{15288 \times 100 \times 100}{112 \times 91}$

$\Rightarrow x =$ ` 15,000.

167. (a) Let the M.P. of article is ` x.

$\therefore$ S.P. of article $= x \times \frac{90}{100}$

$\Rightarrow 450 = x \times \frac{90}{100} \Rightarrow x =$ ` 500

Let the C.P. of article is ` y.

According to the questions,

$y \times \frac{125}{100} = 500$

$\Rightarrow y = 400$

So, cost price of article is ` 400.

168. (a) Equivalent discount $= 331.2$

$= \sqrt{\frac{331.2}{920}} = \sqrt{\frac{9}{25}} = \frac{3}{5}$

Discount $x = \frac{2}{5} \times 100 = 40\%$

Single discount $= 20\%$

169. (d) Let cost price $= 100$

$S.P_1 = 100 \times \frac{84}{100} = 84$

$S.P_2 = 100 \times \frac{108}{100} = 108$

S.P to gain $12\% = \frac{660}{24} \times 112 = 3080$

170. (a) Successive discount $= 22 + 17 - \frac{22 \times 17}{100}$

$= 39 - 3.74 = 35.26\%$

$\Rightarrow 35.26 + 11 - \frac{35.26 \times 11}{100}$

$= 46.26 - 3.8786$

$=$ approx. 42%

171. (b) Let price of diesel $= 100$

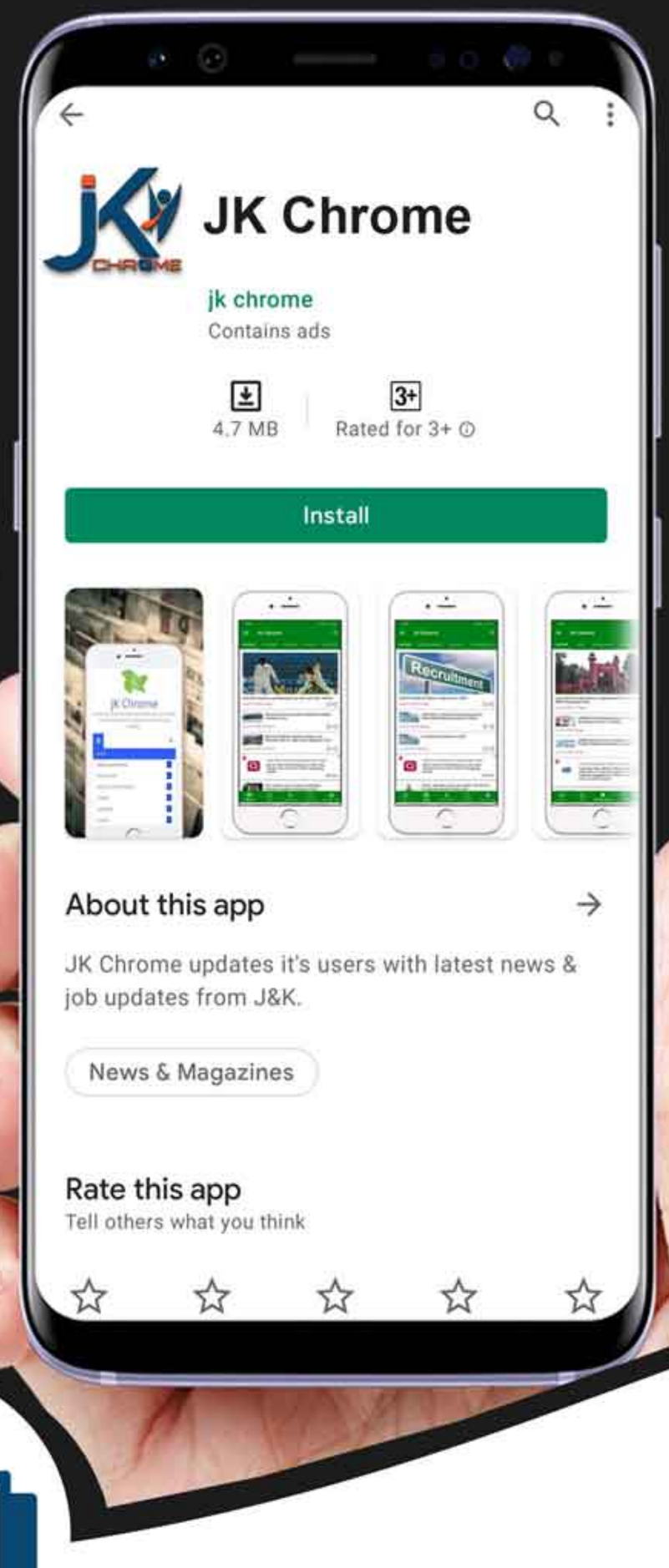
Increased by $16\% = 100 \times \frac{116}{100} = 116$

Expenditure increase by $10\% = 100 \times \frac{110}{100} = 110$

Reduction in consumption $= \frac{6}{116} \times 100 = 5.2\%$

JK Chrome

JK Chrome | Employment Portal



Rated No.1 Job Application of India

Sarkari Naukri
Private Jobs
Employment News
Study Material
Notifications

JOBS

NOTIFICATIONS

G.K

STUDY MATERIAL

GET IT ON Google play

JK Chrome
jk chrome
Contains ads

Click here to DOWNLOAD

www.jkchrome.com | Email : contact@jkchrome.com