PROFIT & LOSS

INTRODUCTION

This chapter can be considered as an extension of percentage with only difference in the terminology usage. The terms used in percentage are CP value, SP value, percentage increase, etc., but the similar terms are used as cost price, selling price, profit percentage, etc. in profit, loss, and discount. Let us understand the different concepts and learn problem-solving methods for these concepts.

TERMINOLOGY

Cost Price

The price (amount) paid to purchase a product or the cost incurred in manufacturing a product is known as the cost price (CP) of that product.

Selling Price

The price at which a product sold is called selling price (SP) of the product.

Marked Price

The marked price or the mark-up price (MP) is the price that the shopkeeper/retailer fixes in the anticipation of some discount that they may be asked by a customer.

Methodology

In any method going forward & backward (both ways) must be easy i.e. CP→SP or SP→CP. So that a student can easily calculate CP or SP as per question requirement. Few methods are discussed below

Percentage change as addition

Thought process:

$$40(CP) \xrightarrow[\substack{20\%\uparrow \\ \to 20\% \text{ of } 40=8 \\ \to +8}]{} 48(SP)$$

Now, think in reverse manner:

$$? \xrightarrow{20\%\uparrow} 48(SP)$$

It is difficult to find CP value if SP value is already given in the question.

Percentage change as Multiple

Thought process:

Think % increase and decrease in following way:

20% ↑ = 1.20
30% ↑ = 1.30
20% ↓ = 0.80

So,

$$40(CP) \xrightarrow[\to \times 1.2]{20\%\uparrow} 48 (SP)$$

This concept is easy and very useful.

Now, think in reverse manner:

$$? \xrightarrow[\to \times 1.2]{20\%\uparrow} 48(SP)$$

In case of reverse just divide 48 by 1.2 as rather multiply.
48/1.2 = 40 (CP)

Percentage change as fractions

Thought process:

Think % increase and decrease in following way:

$$20\%\uparrow = \frac{20}{100} = \frac{1(\text{change})}{5} \to \frac{5+1}{5} \to \frac{6(SP)}{5(CP)}$$

Now Compare

$$\frac{6(SP)}{5(CP)} \xrightarrow[\times 8]{\times 8} \frac{?}{40} \to \frac{48}{40}$$

Finally

$$40(CP) \xrightarrow[\frac{1}{5} \to \frac{6}{5} \to \frac{?}{40} \to \frac{48}{40}]{20\%\uparrow} 48(SP)$$

Now, think in reverse manner:

$$? \xrightarrow{20\%\uparrow \to \frac{6}{5}} 48(SP)$$

If 6→ 48
Then 1→ 8
So, 5→ 40

In all above methods percentage as multiple is quick and easy for profit and loss chapter.

APPLICATION OF % TO PROFIT AND LOSS

Follow two-step process

STEP1 - Always write Percentage (%) terms in decimals (**see table below**)

For profits add into 100 while for loss minus from 100

(+) ↑ Profits gain-increase (100+)		(-)↓Loss-decrease Discount (100-)	
5%	1.05	5%	.95
10%	1.10	10%	.90
25%	1.25	25%	.75

STEP2 – If you have to calculate SP always multiply P (decimal) with SP

P = profit
L =Loss
D = discount
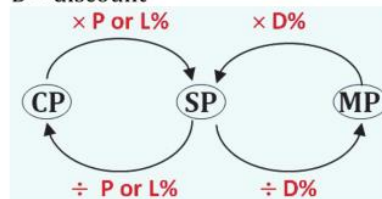
Explanation:

Find CP if SP is 420 and loss is 20%.
Solution: 20% → 0.80
From above
$$SP \xrightarrow{\div L\%} CP$$

$$420 \xrightarrow{\div 0.80} 525$$

Find SP if MP is 420 and discount is 20%.
Solution: 20% → 0.80
From above
$$SP \xrightarrow{\times D\%} CP$$

$$420 \xrightarrow{\times 0.80} 336$$

So using above flow diagram you can jump any way i.e
CP ↔ SP ↔ MP

TYPE

The cost price of 15 articles is same as the selling price of 10 articles. The profit percent is:
Solution:

(c) Given
15 CP = 10 SP
$\dfrac{CP}{SP} = \dfrac{10}{15} = \dfrac{2}{3}$ (Profit)

Profit % = $\dfrac{Profit}{CP} \times 100$ = $\dfrac{1}{2} \times 100$ = 50%

TYPE

A nan sells two pipes at Rs. 12 each, He gains 20% on one and loses 20% on the other. II, the whole transaction, there is
Solution:

As we know
$$SP \xrightarrow{\div P \text{ or } L\%} CP$$
$$12 \xrightarrow[\div 1.2]{20\%\uparrow} 10 \text{ (Pipe-I)}$$
$$12 \xrightarrow[\div 0.8]{20\%\downarrow} 15 \text{ (Pipe-II)}$$
24 → 25
Loss = 25-24 = 1Rs.

TYPE

By selling an article for Rs. 240, a man incurs a loss of 10%. At what price should he sell it, so that he makes a profit of 20%
Solution:

$$\dfrac{240}{0.9}\text{(CP)} \xleftarrow[\div 0.9]{10\%\downarrow} 240\text{(SP)}$$
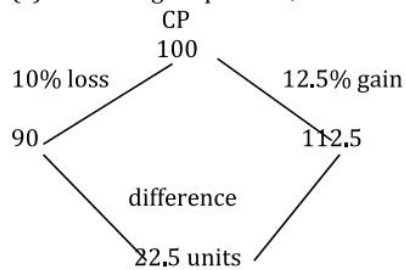
$$\dfrac{240}{0.9} \xrightarrow[\times 1.2]{20\%\uparrow} \dfrac{240}{0.9} \times 1.2 = 320$$

TYPE

An article is sold at a loss of 10%. Had it been sold for Rs. 9 more there would have been a gain of 25/2 % on it. The cost price of the article is:
Solution:

(a) According to question,

CP
100
10% loss   12.5% gain
90   112.5
difference
22.5 units

22.5 units = 9
1 unit = $9 \times \dfrac{2}{45}$
100 units 2/5 × 100
= Rs. 40

TYPE

By selling a plot of land for Rs. 45,000 a person loses 10%. At what price should he sell it to gain 15%
Solution:

(c) According to question
$100(CP) \xrightarrow{10\% \text{ loss}} 90 (SP) \xrightarrow{\times 500} 45000 \text{ (Given)}$
90 units → 45000
1 unit → 500
100 unit = 500 × 100 = 50000
CP = Rs. 50000
To gain 15% = 15/100 × 50000 = Rs. 7500
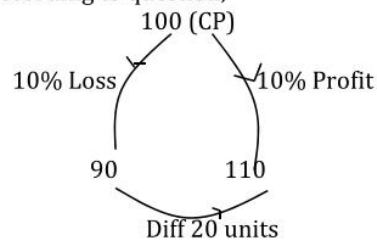Thus, SP = 50000 + 7500 = Rs. 57500

TYPE

A man sells an article at 10% loss. If he had sold it at Rs. 10 more, he would have gained 10%. The cost price of the article is
Solution:

(a) Let CP of the article = 100 units
According to question,

100 (CP)
10% Loss   10% Profit
90   110
Diff 20 units

20 units → Rs. 10
1 unit → $\dfrac{1}{2}$
100 units → $\dfrac{1}{2} \times 100$ = 50
Thus, CP of the article is = Rs. 50

Previous year questions

1. The cost price of 36 books is equal to the selling price of 30 books. The gain percent is :
   (a) 20%   (b) 100/6
   (c) 18%   (d) 494/6

2. The cost price of 15 articles is same as the selling price of 10 articles. The profit percent is:

(a) 30%　　　　　(b) 40%
(c) 50%　　　　　(d) 45%

3. The selling price of 5 articles is the same as the cost price of 3 articles. The gain or loss percent is :
(a) 20% gain　　　(b) 25% gain
(c) 33.33% loss　　(d) 40% loss

4. If 3 toys are sold at the cost price of 4 toys of the same kind, the profit will be:-.
(a) 25%　　　　　(b) 100/3%
(c) 200/3%　　　(d) 50%

5. If the cost price of 15 tables be equal to the selling price of 20 tables, the loss percent is :
(a) 20%　　　　　(b) 30%
(c) 25%　　　　　(d) 37.5%

6. The cost price of 18 articles is equal to the selling price of 15 articles, The gain percent is:
(a) 15%　　　　　(b) 20%
(c) 25%　　　　　(d) 18%

7. The ratio of cost price and selling price is 5 : 4, the loss percent is :
(a) 20%
(c) 40%　　(b) 25%　　　(d) 50%

8. The ratio of the C. P. and S. P. of an article is 20: 21. What is the gain percent?
(a) 5%
(c) 6%　　(b) 5.5%　　(d) 6.25%

9. If selling price of an article is 8/5 times its cost price, the profit percent on it is :
(a) 120%　　　　(b) 160%
(c) 40%　　　　　(d) 60%

10. The cost price of 25 articles is equal to selling price of 20 articles, the gain percent is
(a) 20%　　　　　(b) 22%
(c) 24%　　　　　(d) 25%

11. If the cost price of 50 oranges is equal to the selling price of 40 oranges, then the profit percent is.
(a) 5　　　　　　(b) 10
(c) 20　　　　　　(d) 25

12. If the cost price of 12 oranges is equal to selling price of 10 oranges, then the percentage of profit is.
(a) 50/3　　　　(b) 20%
(c) 18%　　　　　(d) 25%

13. If the cost price of articles is equal to the selling price of 9 articles, the gain or loss percent is.
(a) 100/9% profit　　　　　　(b) 125/17% profit
(c) 100/9% loss　　(d) 25/13 loss

14. The ratio of the cost price and selling price of an article is 5 : 6. What is the percentage of profit?
(a) 20%　　　　　(b) 15%
(c) 12.5%　　　　(d) 10%

15. In selling in article for Rs .76, there is a profit of 52%. If it is sold for Rs. 75, the profit percent will be
(a) 44　　　　　　(b) 46
(c) 48　　　　　　(d) 50

16. If the cost price of 12 pens is equal to the selling price of 8 pens, the gain percent is :
(a) 100/3　　　　(b) 200/3
(c) 25%　　　　　(d) 50%

17. The cost price of 8 articles is equal to the selling price of 9 articles. The profit or loss percent in the transaction is.
(a) 25/2% loss　　(b) 25/2% profit
(c) None of these　(d) 100/9% loss

18. If the selling price of 16 items is equal to the cost price of 20% items, then the gain or loss percentage.
(a) gain of 25%　　(b) gain of 20%
(c) loss of 20%　　(d) loss of 4%

19. If the cost price of 10 articles is equal to the selling price of 7 articles, then the gain or loss percent is :
(a) 51% gain　　　(b) 300/7% gain
(c) 35% loss　　　(d) 300/7% loss

20. A coconut merchant finds that the cost price of 2750 coconuts is the same as the selling price of 2500 coconuts. His loss or gain will be
(a) 5%　　　　　　(b) 10% gain
(c) 15% loss　　　(d) 20% gain

21. If the cost price of 15 books is equal to the selling price of 20 books. The loss percent is.
(a) 16　　　　　　(b) 20
(c) 24　　　　　　(d) 25

22. If the cost price of 10 articles is equal to the selling price of 16 articles, then the loss percent is
(a) 30　　　　　　(b) 37.5
(c) 42.5　　　　　(d) 45

23. If the cost price of 10 chairs be equal to selling price of 18 chairs then the loss percent is.
(a) 9.6　　　　　　(b) 400/9
(c) 20　　　　　　(d) 37.5

24. If the selling price of 10 oranges is the cost price of 13 oranges. Then the profit percentage is.
(a) 20%　　　　　(b) 22%
(c) 25%　　　　　(d) 30%

25. The cost price of 20 articles is equal to the selling price of 15 articles. The profit percent is
(a) 50/3　　　　　(b) 20
(c) 100/3　　　　(d) 200/3

26. The cost price of 24 apples is the same as the selling price of 18 apples. The percentage of gain is :
(a) 25/2　　　　　(b) 44/3
(c) 50/3　　　　　(d) 100/3

27. If the cost price of an article is 80% of its selling price, the profit percent is :
(a) 20%　　　　　(b) 45/2%
(c) 24%　　　　　(d) 25%

28. If the cost price of 15 articles is equal to the selling price of 12 articles, find gain%
(a) 20　　　　　　(b) 25
(c) 18　　　　　　(d) 21

29. If the cost price of 10 articles is equal to the selling price of 8 articles, then gain percent is

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

30. The cost price of 400 lemons is equal to the selling price of 320 lemons, then the profit percent is
(a) 15%   (b)20
(c) 25%   (d) 40%

31. The selling price of 12 articles is equal to the cost price of 15 articles. The gain percent is
(a) 20/3%   (b) 20%
(c) 25%   (d) 80%

32. The cost price : selling price of an article is a : b . If b is 200% of a then the percentage of profit on cost price is
(a) 75%   (b) 125%
(c) 100%   (d) 200%

33. A person sells 400 mangoes at the cost price of 320 mangoes. His percentage of loss is
(a) 10   (b) 15
(c) 20   (d) 25

34. A man sells 320 mangoes at the cost price of 400 mangoes. His gain percent is:
(a) 15   (b) 20
(c) 25   (d) 10

35. If the cost price of 18 articles, is equal to the selling price of 16 articles, the gain or loss is
(a) 25% gain   (b) 25% loss
(c) 25/2% loss   (d) 25/2% gain

36. If toys are bought at Rs. 5 each and sold at Rs. 450 each, then the loss is :
(a) 10%   (b) 115%
(c) 12%   (d) 13%

37. The price of a refrigerator and a television set are in the ratio 5 : 3. If the refrigerator costs Rs. 5500 more than the television set, then the price of the refrigerator is ;
(a) Rs 27500   (b) Rs. 8250
(c) Rs. 13750   (d) Rs. 16500

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

39. Cost price of 100 books is equal to the selling price of 60 books. The gain or loss percentage will be ;
(a) 267/4%   (b) 66%
(c) 200/3%   (d) 265/4%

40. If the ratio of cost price to selling price is 10 : 11, then the rate of percent of profit is
(a) 1.1%   (b) 10%
(c) 0.1%   (d) 1%

41. If the Cost Price of 25 chairs is equal to the selling Price of 30 chair, then the loss % is :
(a) 5%   (b) 20%

(c) 50/3%   (d) 25%

42. A person sells two machines at Rs. 396 each. On one he gains 10% and on the other he loses 10%. His profit or loss in the whole transaction is,
(a) no gain no loss   (b) 1% loss
(c) 1% profit   (d) 8% profit

43. A house and a shop were sold for Rs. 1 lakh each, in this transaction, the house sale resulted into 20% loss whereas the shop sale into 20% profit. The entire transaction resulted in :
(a) no loss no gain   (b) gain of Rs. 1/ 24 lakh
(c) loss of Rs. 1/12 lakh   (d) loss of Rs. 1/ 18 lakh

44. A shopkeeper sells two T. V. sets at the same price. There is a gain of 20% on one TV and a loss of 20% on the other. State which of the following statement is correct.
(a) The shopkeeper makes no net loss or profit
(c) The shopkeeper gains by 4%   (d) The shopkeeper loses by 4%

45. A man sells two article at Rs. 99 each. In one he gains 10% and on the other he loses 10%. , What is his gain or loss percent on the whole transaction?
(a) Loss, 1%   (b) Loss, 1.5%
(c) Profit, 1%   (d) Profit, 1.5%

46. A nan sells two pipes at Rs. 12 each, He gains 20% on one and loses 20% on the other. II, the whole transaction, there is
(a) neither loss nor gain   (b) Profit of Rs. 1
(c) Loss of Rs. 1   (d) profit of Rs. 2

47. Bhuvnesh sells two tape recorders at the same price. On one, he gains 10% and on the other he loses 10%. The total gain or loss in the transaction is :
(a) 1% gain   (b) 1% loss
(c) No loss or gain   (d) 2% loss

48. A man sells two tables at the same price. Om one he makes, a profit of 10% and on the other suffers a loss of 10%, His loss percent on the whole transaction is :
(a) 0   (b) 1
(c) 2   (d) 5

49. A trader sells two articles at Rs. 6000 each. He makes a profit of 20% in the sale of the first article and a loss of 20% in the sale of the second article. What is his net gain or loss percent?
(a) 5% gain   (b) 4% gain
(c) 5% loss   (d) 4% loss

50. A television and a refrigerator were sold for Rs. 12,000 each. If the television was sold at a loss of 20% of the cost and the refrigerator at a gain. of 20% of the cost, the entire transaction resulted in
(a) No loss or gain   (b) Loss of Rs. 1,000

(c) Gain of Rs. 1,000 (d) Loss of Rs. 1,200

51. Two bicycles were sold for Rs. 3990 each gaining 5% on one and losing 5% on other, The gain or loss percent on the whole transaction is :
(a) neither gain nor loss (b) 2.5% gain
(c) 2.5% loss (d) 0.25% loss

52. A. man sold two watches for Rs. 240 each. On one he gains 20% and incurs a loss of 20% on another. What is his gain or loss percent in this transaction?
(a) 1% profit. (b) 2% loss
(c) 4% profit (d) 4% loss

53. A dealer sold two T.V. sets for Rs. 7400 each. On one he gained 10% and on the other he lost 10%. The dealer's loss or gain in the transaction is :
(a) No profit no loss (b) 1% gain
(c) 0.1% loss (d) 1% loss

54. A car and a jeep were sold for Rs. 2,40,000 each. The car was sold at a loss of 20% while the jeep at a gain of 20%. The entire transaction resulted in
(a) neither loss nor gain (b) gain of Rs. 1000
(c) loss of Rs. 20,000 (d) gain of Rs. 500

55. A man sold two chairs at Rs. 1,200 each, On one he gained 20% and on the other he lost 20%. He gain or loss in the whole transaction is
(a) 1% loss (b) 2% loss
(c) 4% loss (d) 1% gain

56. A nan sells two chairs at Rs. 120 each and by doing so gains 25% on one chair and loses 25% con the other. His loss on the whole in Rs. is
(a) 20 (b) 16
(c) 25 (d) 30

57. A dealer sold two types of goods for Rs. 10,000 each. On one of them, he lost 20% and on the other he gained 20%. his gain or loss percent in the entire transaction was
(a) 2% loss (b) 2% gain (b) 4% gain
(d) 4% loss

58. A man sold two articles at Rs. 375 each. On one, he gains 25% and on the other, he loses 25% , The gain or loss% on the whole transaction is
(a) 6% loss (b) 25/6 % profit
(c) Rs. 50 profit (d) 25/4% loss

59. Ram sold two horses at the same price. In one he gets a profit of 10% and in the other he gets a loss of 10%. Then Ram gets
(a) 1% loss (b) 1% profits
(c) no loss or profit (d) 2% loss

60. By selling an article for Rs. 240, a man incurs a loss of 10%. At what price should he sell it, so that he makes a profit of 20%
(a) Rs. 264 (b) Rs 288
(c) Rs. 300 (d) Rs. 320

61. A man wanted to sell an article with 20% profit: but he actually sold at 20% loss for Rs. 480, At what price he wanted to sell it to each the profit?
(a) Rs. 720 (b) 840
(c) Rs. 600 (d) Rs. 750

62. If an article at 5% gains instead of 5% loss the man gains Rs. 5 more. Find the cost price of that article
(a) Rs. 100 (b) Rs. 105
(c) Rs. 50 (d) Rs. 110

63. By selling an article for Rs. 72. there is a loss of 10%. In order to gain 5%, its selling price should be :
(a) Rs 87 (b) Rs. 85
(c) Rs. 80 (d) Rs. 84

64. On selling an article for Rs. 105 a trader loses 9%. To gain 30% he should sell the article at
(a) Rs. 126 (b) Rs. 144
(c) Rs. 150 (d) Rs. 139

65. An article is sold at a loss of 10%. Had it been sold for Rs. 9 more there would have been a gain of 25/2 % on it. The cost price of the article is:
(a) Rs. 40 (b) Rs. 45
(c) Rs. 50 (d) 35

66. By selling a table for of Rs. 350 instead of Rs. 400, loss percent increases by 5%. The cost price of table is
(a) Rs. 1,040 (b) Rs. 417,50
(c) 435 (d) Rs. 1,000

67. By selling a tape-recorded for Rs. 950 one lose 5%. What percent shall one gain by selling it for Rs. 1040?
(a) 5 (b) 4
(c) 4.5 (d) 9

68. A shopkeeper sells an article at a loss of 25/2 %. Had he sold it for Rs. 51.80 more, he would have earned a profit of 6%. The cost price of the article is
(a) Rs. 280 (b) Rs. 300
(c) Rs. 380 (d) Rs 400

69. A person sells a table at a profit of 10%. If he had bought the table at 5% less cost and sold for Rs. 80 more. He would have gained 20%. The cost price of the table is
(a) Rs. 3,200 (b) Rs. 2,500
(c) Rs. 2,000 (d) Rs. 200

70. A tradesman sold an article at a loss of 20%. If the selling price had been increased by Rs. 100, there would have been a gain of 5%. The cost price of the article was.
(a) Rs. 200 (b) Rs. 25
(c) Rs. 400 (d) Rs. 250

71. An article is sold at a profit of 20% if, it had been sold at a profit of 25%, it would have fetched Rs. 35. The cost price of the article is :

(a) Rs. 650   (b) Rs. 700
(c) Rs. 750   (d) Rs. 800

72. A man gains 20% by selling an article for a certain price. If he sells it at double the price, the percentage of profit will be :
(a) 40   (b) 14
(c) 100   (d) 120

73. By selling a plot of land for Rs. 45,000 a person loses 10%. At what price should he sell it to gain 15%
(a) Rs 50,000   (b) Rs. 55,000
(c) Rs. 57,500   (d) Rs. 60,000

74. A radio is sold for Rs. 990 at a profit of 10%, What would have been the actual profit or loss on it had it been sold for Rs. 890?
(a) Rs. 10 loss   (b) Rs. 10 profit
(c) Rs. 90 loss   (d) Rs. 90 profit

75. A man sold an article at a loss of 20%. If he has sold that article for Rs. 12 more he would have gained 10%. Find the cost price of that article;
(a) Rs. 60   (b) Rs. 40
(c) Rs. 30   (d) Rs. 22

76. If an article is sold for Rs. 178, at a loss of 11%, what should be its selling price in order to earn a profit of 11%
(a) Rs. 222.50   (b) Rs. 267
(c) Rs. 222   (d) Rs. 220

77. A man gets Rs. 13 more by selling an article at a profit of 25/2 % than selling it at a loss of 25/2%, The cost price of the article is :
(a) Rs. 25.50   (b) Rs. 38
(c) Rs. 52   (d) Rs. 65

78. The percentage of loss when an article is sold at Rs. 50 is the same as that of the profit when it is sold at Rs. 70. The above-mentioned percentage of profit or loss on the article is
(a) 10%   (b) 50/3%
(c) 20%   (d) 68/3%

79. If an article is sold at a gain of 5% instead of being sold at a loss of 5%. One gets Rs. 5 more. What is the cost price of the article?
(a) Rs. 100   (b) Rs. 105
(c) Rs 50   (d) Rs. 110

80. A man sells an article at 10% loss. If he had sold it at Rs. 10 more, he would have gained 10%. The cost price of the article is
(a) Rs. 50   (b) Rs. 55
(c) 100   (d) 110

81. If a man were to sell his chai for Rs. 720, he would lose 25%. To gain 25% he should sell it for
(a) Rs. 1,200   (b) Rs. 1,000
(c) Rs. 960   (d) Rs. 900

82. A book seller sells a book at a profit of 10%. If he had bought it at 4% less and sold it for Rs. 6 more. He would have gained 75/4 %. The cost price of the book is

(a) Rs. 130   (b) Rs. 140
(c) Rs. 150   (d) Rs. 160

83. A man sells his typewriter at 5% loss. If he sells it for Rs. 80 more, he will gain 5%. The cost price of the typewriter is
(a) Rs. 1,600   (b) Rs. 1,200
(c) Rs. 1,000   (d) Rs. 800.

84. An increase of Rs. 3 in the selling price of an article turns a loss of 15/2% into a gain of 15/2 %. The cost price (in Rs.) of the article is :
(a) 25   (b) 20
(c) 15   (d) 10

85. By selling an article for Rs. 665, there is a loss of 5%. In order to male a profit of 12%, the selling price of the article must be
(a) Rs 812   (b) Rs. 800
(c) Rs. 790   (d) Rs. 784

86. A businessman sells a commodity at 10% profit. If he had bought it at 10% less and sold it for Rs. 2 less, then he would have gained 50/3% .The cost price of the commodity is
(a) Rs. 32   (b) Rs. 36
(c) Rs. 40   (d) Rs. 48

87. A man sold an article at a loss of 20%. If he had sold it for Rs. 50 more, he would have gained 5%, The cost price of the article was
(a) Rs. 250   (b) Rs. 300
(c) Rs. 180   (d) Rs. 200

88. A sells an article to B at a profit of 10% B sells the article back to A at a loss of 10%. In this transaction,
(a) A neither loss nor gains   (b) A makes a profit of 11%
(c) A makes a profit of 20%   (d) B loss 20%

89. If the selling price of an article is doubled, then its loss percent is converted into equal profit percent. The loss percent on the article is
(a) 80/3%   (b) 33%
(c) 100/3 %   (d) 34%

90. A man sold some articles at a gain of 10%. He spent his total sale proceeds to purchase such articles again, This time, while selling them, he incurred a loss of 10%. His loss or gain in the transaction
(a) 1% loss   (b) 1% gain
(c) no profit no loss   (d) 2% loss

91. By selling a basket for Rs. 19.50, a shopkeeper gains 30%. For how much should he sell it to gain 40% ?
(a) Rs. 21   (b) Rs. 21.50
(c) Rs. 24   (d) Rs. 23

92. A cooker is sold at a gain of 16%. If it had been sold for Rs. 20 more, 20% would have been gained, The cost price of the cooker is
(a) Rs. 350   (b) Rs. 400
(c) Rs. 500   (d) Rs. 600

93. An article is sold at a loss of 20%. It yields Rs. 60 more when it is sold at a gain of 20%. The cost price of the article is
(a) Rs. 200   (b) Rs. 150
(c) Rs. 140   (d) Rs. 120

94. By selling an article for Rs 700 a man lost 30%. At what price should he have sold it to gain 30% ?
(a) Rs. 910   (b) Rs. 1200
(c) Rs. 1232   (d) Rs. 1300

95. A man purchased a bedsheet for Rs. 450 and sold it at a gain of 105 calculated on the selling price. The selling price of the bed sheets was
(a) Rs. 460   (b) Rs. 475
(c) Rs. 480   (d) Rs. 500

96. If an article is sold at 200% profit then ratio of its cost price to its selling price will be
(a) 1 : 2   (b) 2 : 1
(c) 1 : 3   (d) 3 : 1

97. An article is sold at 5% profit. The ratio of selling price and cost price will be
(a) 1 : 5   (b) 20 : 21
(c) 21 : 20   (d) 5 : 1

98. Aniruddha sold a bicycle at a gain of 8%. Had it been sold for Rs. 75 more, the gain would have been 14%. The cost price of the bicycle was
(a) Rs. 1200   (b) Rs. 1250
(c) Rs. 1350   (d) Rs. 1500

99. By selling a bicycle for Rs. 2850 a shopkeeper gains 14%. If the profit is reduced to 8%, then the selling price will be
(a) Rs. 2,600   (b) Rs. 2,700
(c) Rs. 2,800   (d) Rs. 3,000

100. By selling an article for Rs. 960 a man incurs a loss of 4%; what was the cost price?
(a) Rs. 1,000   (b) Rs. 784
(c) Rs. 4,984   (d) Rs. 300

101. A fruit seller makes a profit of 20% by selling mangoes at a certain price. If he charges Rs. 1 more a profit of 40%. Find the selling price of a mango in the first case.
(a) Rs. 6   (b) Rs. 5
(c) Rs. 5.50   (d) Rs. 7

102. If a man were to sell his handcart for Rs. 720, he would loss 255. To gain 25%, the selling price is
(a) Rs. 960   (b) Rs. 1,200
(c) Rs. 1,000   (d) Rs. 2,100

103. A grocery dealer cheats to the extent of 10% while buying as well as selling by using false weight. What is his increase in the profit percentage ?
(a) 20%   (b) 21%
(c) 22%   (d) None of these

104. A book vendor sold a book at a loss of 20%. Had he sold it for Rs. 108 more, he would have earned a profit of 30%. Find the cost price of the book ?
(a) Rs. 216   (b) Rs. 648
(c) Rs. 240   (d) Rs. 432

105. A book vendor sold a book at loss of 10%. Had he sold it for Rs. 108 more, he would have earned a profit of 10%. Find the cost f the book.
(a) Rs. 442   (b) Rs. 540
(c) Rs. 648   (d) Rs. 740

106. Dinesh bought two radios for Rs. 1,920. He sold one at a profit of 20% and the other at a loss 20/3%. If the selling price of both radios are same, then find the cost price of both radios.
(a) Rs. 800 and Rs. 1,120   (b) Rs. 840 and Rs. 1,080
(c) Rs. 860 and Rs. 1,060   (d) Rs. 900 and Rs. 1,020

107. A loss of 19% get converted into a profit of 17% when the selling price is increased by Rs. 162. The cost price of the article is
(a) Rs. 450   (b) Rs. 600
(c) Rs. 360   (d) Rs. 540

108. The reduction of Rs. 12 in the selling price of an article will changes 5% gain into 5/2% loss. The cost price of the article is
(a) Rs. 140   (b) Rs. 160
(c) Rs. 80   (d) Rs. 100

109. An article was sold at a profit of 12%. If the cost price would be 10% less and selling price would be Rs. 5.75 more, there would be profit of 30%. Then at what price it should be sold to make a profit of 20% ?
(a) Rs. 115   (b) Rs. 120
(c) Rs. 138   (d) Rs. 215

110. By selling a table for Rs. 1140, a man loses 5%. In order to gain 5% the table must be sold for
(a) Rs. 1260   (b) Rs. 1320
(c) Rs. 1180   (d) Rs. 1250

111. A radio dealer sold a radio at a loss of 2.5%. Had he sold it for Rs. 100 more, he would have gained 15/2 in order to gain 25/2 % he should sell it for
(a) Rs. 1080   (b) Rs 1125
(c) Rs. 850   (d) Rs. 925

112. By selling a fan for Rs. 600, a man losses 10%. To make a gain of 20%, the selling price of the fan should be
(a) Rs. 900   (b) Rs. 1000
(c) Rs. 700   (d) Rs. 800

113. On selling an article for Rs. 170, a shopkeeper losses 15%, In order to gain 20%, he must sell that article at rupees :
(a) 215.50   (b) 212.50
(c) 240   (d) 210

114. An article is sold at a gain of 15%. Had it been sold for Rs. 27 more then the profit would have been 20%. The cost price of the article is
(a) Rs. 500   (b) Rs. 700

(c) Rs. 540   (d)Rs. 545

115. A man sells an article, gain of 15%. If he had bought it at 10% less and sold it for Rs. 4 less, he would have gained 25 %, The cost price of the article is
(a) Rs. 140   (b) Rs. 150
(c) Rs. 160   (d) Rs. 185

116. An article is sold at a loss of 10%. Had it been sold for Rs. 90 more, there would have been a gain of 5%. The original sale price of the article (in Rs.) is:
(a) 540   (b) 600
(c) 628   (d) 650

117. A man sold an article at a loss of 20%. If he could sell it for Rs. 200 more, he would make a profit of 5%. The cost price of the article is
(a) Rs. 700   (b) Rs. 800
(c) Rs. 850   (d) Rs. 900

118. A businessman bought an article and sold it at a loss of 5%. If he had bought it for 10% less and sold it for Rs. 33 more, he would have had a profit of 30%. The cost of the article is
(a) 330   (b) 155
(c) 150   (d) 390

119. An article was sold a 16% gain. Had it been sold or Rs. 200 more, the gain would have been 20%. The cost price of the article is :
(a) Rs. 5000   (b) Rs. 4800
(c) Rs. 4500   (d) Rs. 5200

120. A shopkeeper sells an article at 15% gain, Had he sold it for Rs. 18 more, he would have gained 18%. the cost price (in Rs.) of the article is
(a) 540   (b) 318
(c) 600   (d) 350

121. Mohan sold his watch at 10% loss, If he had sold it for Rs. 45 more, he would have made 5% profit. The cost price (in Rs.) of the watch was
(a) 300   (b) 900
(c) 110   (d) 270

122. If the selling price of a product is increased by Rs. 162, then the businessman will make a profit of 17% instead of loss of 19%. The cost price of the product is
(a) Rs. 360   (b) Rs. 450
(c) Rs. 540   (d) Rs. 600

123. A tradesman sold an article at a loss of 20%. If the selling price there would have been a gain of 5%. The cost price of the article (in Rs.) was
(a) Rs. 100   (b) Rs. 200
(c) Rs. 400   (d) Rs. 500

124. A dealer sold a bicycle at a profit of 10%. Had he bought the bicycle at 10% less price and sold it at a price Rs. 60 more, he would have gained 25%. The cost price of the bicycle was:
(a) Rs. 2400   (b) Rs. 2200
(c) Rs. 2000   (d) Rs. 2600

125. A radio is sold at a profit of 20%. Had it been sold for R. 60 more than profit would have been 30%, The cost price of the ratio is
(a)Rs. 600   (b) Rs. 620
(c) Rs. 550   (d) Rs. 500

126. A man sells an article at 5% above its cost price. If he had bought it at 5% less then what he had paid for it and sold it at Rs. 2 less, he would have gained 10%. The cost price of the article is :
(a) Rs. 300   (b) Rs. 400
(c) Rs. 200   (d) Rs. 100

127. There would be a 10% loss, if rice is sold at Rs. 54 per kg. To earn a profit of 20%, the price of rice per kg will be :
(a) Rs. 72   (b) Rs. 70
(c) Rs. 63   (d)Rs. 65

128. Pooja wants to sell a watch at a profit of 20%. , She bought it at 10% less and sold it, at Rs. 30 less, but still she gained 20%. The cost price of watch
(a) Rs. 240   (b) Rs. 250
(c) Rs. 220   (d) Rs. 225

129. A profit of 12% is made when a mobile phone is sold at Rs. P and there is 4% loss when the phone is sold at Rs. Q. Then Q : P is
(a) 1 : 1   (b) 6 : 7
(c) 4 : 5   (d) 3 : 1

130. An article is sold at a profit of 25%. If the selling price is doubled, the profit % will be:
(a) 200%   (b) 150%
(c) 100%   (d) 50%

131. A man purchased an article for Rs. 1500 and sold it at 25% above the cost price. If he has to pay Rs. 75 as taxon it his net profit percentage will be:
(a) 25%   (b) 30%
(c) 15%   (d) 20%

132. If a man were to sell his hand-kart: Rs 720, he would lose 25%. At what price must he sell it to gain 25% ?
(a) Rs. 960   (b) Rs. 1152
(c) 768   (d) 1200

133. By selling an article for Rs. 450. I lose 20%. For what amount, should I sell it to gain 20%?
(a)Rs. 675   (b) Rs. 470
(c) Rs. 490   (d) Rs 562.50

134. A shopkeeper sold an article at a loss of 20%. But if he could sell it at Rs. 200 more, he could earn a profit of 5%. The cost price of the article is
(a) Rs. 600   (b) Rs. 800
(c) Rs. 1,000   (d) Rs. 1,200

135. By selling some goods at Rs. 31, a salesman loses 7% on his output. Find the percentage profit or loss, When he sells the same at Rs. 35.
(a) Loss 7%   (b) Profit 5%
(c) Loss 5%   (d) Profit 7%

136. The marked price of an article is 10% higher than cost price. A discount of 10% is given on marked price. In this kind of sale, the bears :

(a) no loss no gain   (b) a loss of 5%

(c) a gain of 1%   (d) a loss of 1%

137. A dealer makes a profit of 20% even after giving a 10% discount on the advertised price of a scooter. If he makes a profit of Rs. 7500 on the sale of the scooter the advertised price was

(a) Rs. 45000   (b) Rs. 47500

(c) Rs. 50000   (d) Rs. 52500

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

(a) 99 : 125   (b) 25 : 37

(c) 50 : 61   (d) 45 : 56

139. A tradesman allows a discount of 15% on the marked price. How much above the cost price must he mark his goods as to gain 19%?

(a) 34%   (b) 40%

(c) 25%   (d) 30%

140. Rita bought a television set with 20% discount on the labelled price. She made a profit of Rs. 800 by selling it for Rs. 16,800. The labelled price of the set was

(a) Rs. 18,000   (b) Rs. 20,000

(c) Rs. 20,800   (d) Rs. 24,000

141. If the profit percent got on selling an article is numerically equal to its cost price in rupees and the selling price is Rs. 39, then cost price (in Rs.) will be

(a) 20   (b) 22

(c) 28   (d) 30

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

(a) Rs. 1,000   (b) Rs. 1,100

(c) Rs. 1,200   (d) Rs. 1,300

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

(a) 820   (b) 780

(c) 790   (d) 800

144. The marked price of an article is 50% above cost price, When marked price is increased by 20% and selling price is increased by 20%. The profit doubles. If original marked price is Rs. 300, then original selling price is

(a) Rs. 200   (b) Rs. 250

(c) Rs. 240   (d) Rs. 275

145. A fan is listed at Rs. 150 and a discount of 20% is given. Then the selling price is

(a) Rs. 180   (b) Rs. 150

(c) Rs. 120   (d) Rs. 110

146. To gain 8% after allowing a discount of 10%, by what percent cost price should be hiked in the list price ?

(a) 9%   (b) 11%

(c) 18%   (d) 20%

147. The cost of manufacture of a tape recorder is Rs. 1,500. The manufacturer fixes the marked price 20% above the cost of manufacture and allow a discount in such a way as to get a profit of 8%. The rate of discount is

(a) 12   (b) 8

(c) 12   (d) 10

148. How much percent above the cost price should a shopkeeper marks his goods so as to earn a profit of 32% after allowing a discount of 12% on the marked price ?

(a) 50%   (b) 40%

(c) 60%   (d) 45%

149. A dealer purchased a washing machine for Rs. 7,660. After allowing a discount of 12% on its marked price, he still gains 10%. Find the marked price of the washing machine.

(a) Rs. 9,575   (b) Rs. 8,426

(c) Rs. 8,246   (d) Rs. 9,755

150. A publisher printed 2000 copies of a book at a cost of Rs. 70,000. He distributes 400 copies free as specimen copies. He gave 30% discount on marked price of each book which is Rs. 75. What is his gain or loss percentage?

(a) 20% gain   (b) 20% loss

(c) 10%   (d) 10% gain

151. While selling to the retailer, a company allows 30% discount on the marked price of their products. If the retailer sells those products at marked price , his profit will be :

(a) 30%   (b) 17/2%

(c) 40%   (d) 300/7%

152. A trader marked the price of a commodity so as to include a profit of 25%, but allow a discount of 16% on the marked price. His actual profit will be

(a) 16%   (b) 25%

(c) 5%   (d) 9%

153. A merchant purchases a wrist watch for Rs. 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

(a) Rs. 650   (b) Rs. 700

(c) Rs. 550   (d) Rs. 600

154. If a shirt cost Rs. 64, after 20% discount is allowed, what was its original price in Rs. ?

(a) 76.80   (b) 80

(c) 88   (d) 86.80

155. A got 30% concession on the label price of an article and sold for Rs. 8,750 with 25% profit on the price he bought. The label price was

(a) Rs. 13,000   (b) Rs. 16,000

(c) Rs. 12,000   (d) Rs. 10,000

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

(a) 45 : 56   (b) 50 : 61

(c) 90 : 974   (d) 99 : 125

157. A shopkeeper marks his goods 15% above cost price, but allows 20% discount for cash. His net loss is
(a) 3%   (b) 5%
(c) 8%   (d) 10%

158. The cost of manufacture of a tape recorder is Rs. 1500. The manufacturer fixes the marked price 20% above the cost of manufacture. If the manufacture wants to gain 8%, what is the rate of discount that can't be allowed ?
(a) 20%   (b) 15%
(c) 11%   (d) 10%

159. A shopkeeper sold sarees at Rs. 266 each after giving 5% discount on labelled price. Had he not given the discount, he would have earned a profit of 12% on the cost price. What was the cost price of each saree ?
(c) Rs. 240   (d) Rs. 250

160. Arvind purchased a wrist watch with 30% discount on the labelled price. He sold it with 40% profit on the price he bought, what was his percent loss on the labelled price ?   (a 2   (b) 6
(c) 4   (d) 8

161. A trader allows a discount of 10% on the marked price. He still has a profit of 17% on the cost price. Find the profit percentage if he sells at the marked price.   (a 27%   (b) 33%
(c) 30%   (d) 19%

162. A shopkeeper offers a discount of 10% on his articles. The marked price of the article is Rs. 450. The selling price should be   (a Rs. 395   (b) Rs. 410
(c) Rs. 405   (d) Rs. 400

163. A tradesman marks his goods 30% more than the cost price. If he allows a discount of 25/4% then his gain percent is
(a) 95/4%   (b) 225
(c) 175/8%   (d) 30%

164. Arun marks up the computer he is selling by 20% profit and sells them at a discount of 15% Arun's net gain percent is
(a) 4   (b) 2
(c) 3.5   (d) 2.5

165. A retailer purchased radio sets at the rate of Rs. 400 each from a wholesaler. He raised the price by 30% and then allowed a discount of 8% on each set. His profit will be
(a) 19%   (b) 78.4%
(c) 22%   (d) 19.6%

166. An article which is marked at Rs. 975 is sold for Rs. 897. The % discount is ?
(a) 12%   (b) 10%
(c) 6%   (d) 3%

167. The different between successive discounts of followed by 30% and 45% followed by 20% on the marked price of an article is Rs. 12, The marked price of the article is :
(a) Rs. 400   (b) Rs. 800
(c) Rs. 600   (d) Rs. 200

168. Find a single discount equivalent to a discount series of 10%, 20% and 25%:
(a) 45%   (b) 52%
(c) 46%   (d) 55%

169. A dealer buys an article listed at & 100 and gets successive discounts of 10% and 20%. He spends 10% of the Cost Price on transportations; At what price should he sell the article to earn a profit of 15%?
(a) Rs. 90.80   (b) Rs. 92.00
(c) Rs 91.20   (d) Rs. 91.08

170. A shopkeeper allows a discount of 10% on the marked price of a camera. Marked price of the camera, which cost him Rs. 600, to make a profit of 20% should be   (a) Rs. 280   (b) Rs. 260
(a) Rs. 800   (b) Rs. 650
(c) Rs 750   (d) Rs. 700

171. 10% discount and then 20% discount in succession equivalents to total discount of
(a) 15%   (b) 30%
(c) 24%   (d) 28%

172. The marked price of a watch was Rs. 7 20. A man bought the same for Rs. 550.80 after getting two successive discounts. the first being 10%, the second discount rate is
(a) 12%   (b) 14%
(c) 15%   (d) 18%

173. Allowing 20% and 15% successive discounts, the selling price of an article becomes Rs. 3,060; then the marked price will be:
(a) Rs. 4,400   (b) Rs. 5,000
(c) Rs. 4,500   (d) Rs. 4,000

174. List price of a book is Rs. 100. A dealer sells three such books for Rs. 274.50 after allowing discount at a certain rate, find the rate of discount.
(a) 8.33%   (b) 8, 16%
(c) 8.5%   (d) 8.34%

175. The printed price of an article is 40% higher than its cost price, Then the rate of discount so that he gains 12% profit is :
(a) 20%   (b) 15%
(c) 21%   (d) 18%

176. A shopkeeper gains 17% after allowing a discount of 10% on the marked price of an article, Find his profit percent if the article is skid at marked price allowing no discount.
(a) 23%   (b) 27%
(c) 30%   (d) 37%

177. A reader marks his goods 20% above cost price but allows his customers a discount of 10%, the cost price of a blackboard, which is sold for Rs. 216, is:
(a) Rs. 108   (b) Rs. 180
(c) Rs. 196   (d) Rs. 200

178. If the cost price of an item is 5/9 of its marked price and the profit is 20%, then the percentage of discount is
(a) 20%   (b) 190/3%

(c) 211/3% (d) 100/3%

179. If a shopkeeper wants to give 20% discount on a toy, he has to sell it for Rs. 300. If he sells it at Rs. 405, then his gain percent is
(a) 5% (b) 8%
(c) 6% (d) 4%

180. A dealer fixed the price of an article 40% above the cost of production. While selling it he allows a discount of 20% and makes a profit of Rs. 48. The cost of production (in Rs.) of the article is (a 320
(c) 420 (d) 360

181. A manufacture fixes his selling price at 100/3 % over the cost of production, If cost of production goes up by 12% and manufacture raises his selling price by 10%, his percentage profit is
(a) 329/9 % (b) 683/21%
(c) 35% (d) 227/8%

182. If a person marked a product 25% above the cost price but allows 10% discount, then the percentage profit is
(a) 35% (b) 17.5%
(c) 155 (d) 12.5%

183. Successive discounts of 20% and 10% are equivalent to a single discount of :
(a) 28% (b) 25%
(c) 30% (d) 15%

184. After allowing a discount of 20%, a radio is available for Rs. 1200. Its marked price is:
(a) Rs. 1500 (b) Rs. 1800
(c) Rs. 1400 (d) Rs. 1550

185. A shopkeeper fixes the price of an article at 30% higher than its actual cost. If he sells it at 10% discount on marked price then, the profit is:
(a) 18%
(c) 20% (b) 17% (d) 19%

186. The marked price of a CD is Rs. 250 . It is sold for Rs. 225 . The rate of discount is:
(a) 100/9 % (b) 25%
(c) 2.5% (d) 10%

187. Mohan purchased a bag with 20 percent discount on the labelled price. He sold it with 40 profit on the price he bought percentage of profit on the labelled price is :
(a) 20% (b) 24%
(c) 12% (d) 18%

188. A hours was sold for Rs. y by giving a discount x %, then the list price was :
(a) $\frac{100y}{1-\frac{x}{100}}$ (b) $\frac{100x}{100-y}$
(c) $\frac{100y}{100-x}$ (d) $\frac{100x}{100-x}$

189. A Shopkeeper marks his goods 20% higher than the cost price and allows a discount of 5%. The percentage of his profit is:
(a) 20% (b) 15%
(c) 14% (d) 10%

190. After allowing 15% discount, the selling price of a radio becomes R. 255. The marked price is

(a) Rs. 300 (b) Rs. 500
(c) Rs. 600 (d) Rs. 400

191. The list price of an electric fan is 300. If two successive discount of 15% and 10% are allowed. Its selling price would be
(a) Rs. 229.50 (b) Rs. 227.50
(c) Rs. 225 (d) Rs. 230

192. Successive discount of 10%, 20% and 25% on the price of an article will reduce the price by :
(a) 46% (b) 400 (b) 54%
(c) 45% (d) 55%

193. How much percentage above the cost price should a shopkeeper mark his good so that after allowing a discount of 10% he should gain 26% ?
(a) 140% (b) 25%
(c) 16% (d) 40%

194. A sells a bicycle to B at a profit of 20%. B sells it to C at a profit of 25%, If C pays Rs. 225/- for it, the cost price of the bicycle for A is :
(a) Rs. 110/- (b) Rs. 125/-
(c) Rs. 120/- (d) Rs. 150/-

195. A house worth Rs. 1,50,000 is sold by X at a 5% profit to Y, Y sells the house back to X at a 2% loss, Then find profit and loss in the entire transaction.
(a) X gains Rs. 4,350 (b) X loses Rs. 4,350
(c) X gains Rs. 3,150 (d) X loses Rs. 3,150

196. If a manufacturer gains 10 percent, wholesaler 15 percent and retailer 25 percent, then the production cost of an article, whose retail price is Rs. 1,265, is
(a) Rs. 700 (b) Rs. 750
(c) Rs. 800 (d) Rs. 900

197. Krishna bought a camera and paid 20% less than its original price. He sold it at 40% profit on the price he had paid. The percentage of profit earned by Krishna on the original price was .
(a) 22 (b) 32
(c) 12 (d) 15

198. A car worth Rs. 1,50,000 was sold by X to Y at 5% profit. Y sold the car back to X at 2% loss. In the entire transaction
(a) X gained Rs. 4,350 (b) Y. lost Rs. 4,350
(c) X gained Rs. 3,150 (d) X lost Rs. 3,150

199. A manufacturer sells an article to a wholesale dealer at a profit of 10%. The wholesale dealer sells it to a shopkeeper at 20% profit. The shopkeeper sells it to a customer for Rs. 56,100 at a loss of 15%. -Then the cost price of the article to the manufacturer is
(a) Rs 25,000 (b) Rs. 10,000
(c) Rs. 50,000 (d) Rs. 55,000

200. A sells a cycle to B at a profit of 5% and B sells it to C at a profit of 10%. If C pays Rs. 2310 for it. The cost price of A is

(a) Rs. 2000   (b) RS. 2100
(c) Rs. 1900   (d) Rs. 2010

201. A sells a to B at a profit of 10%, B sells to C at a profit of 20%, If C pays Rs. 264 for it, how much did. A pay for it?
(a) Rs. 200   (b) Rs 220
(c) Rs. 225   (d) Rs. 234

202. A man purchased an article and sold it to B at a profit of 25% and B sold it to C at a loss of 10% and C paid Rs. 675 for it. For how much did A. purchase it (in Rs.)?
(a) 625   (b) 575
(c) 600   (d) 550

203. A sold a tape-recorder to B for Rs. 4,860 at a loss of 19%, Again B sold it to C at price that would give A get a profit of 17%. The gain of B is
(a) 200/9%   (b) 100/3%
(c) 400/9%   (d) 200/3%

204. A sells an article to, B at a gain of 10% B sells it to C at a gain of 5%, If C pays Rs. 462 for it. What did it cost A?
(a) Rs. 500   (b) Rs. 450
(c) 600   (d) Rs 400

205. A dishonest fruit vendor sells his goods at cost price but they uses a weight of 900 gm for the kg. weight. His gain percent is :
(a) 12%   (b) 100/9%
(c) 91/9%   (d) 10%

206. A dishonest shopkeeper, using a faulty balance makes a profit of 5% while buying as well as while selling his goods. His actual gain percent in the whole process amount to
(a) 11   (b) 10
(c) 10.25   (d) 10.5

207. A man sells a car to his friend at 10% loss. If the friend sells it for Rs. 54,000 and gains 20%, the original cost price of the car was
(a) Rs. 25,000   (b) Rs. 35,000
(c) Rs. 45,000   (d) Rs. 50,000

208. A sells an article to B at a gain of 10% B sells it to C at a gain of15/2%, C sells of it at a loss of C ls of i at a loss of 25%; If the prime cost to the manufacturer A was Rs. 3200 then the selling price by C. is
(a) Rs. 2800   (b) Rs. 2580
(c) Rs. 2670   (d) Rs. 2838

209. A sells an article to B at a gain of 20% and B sells it to C at a gain of 10% and C sells it to D at a gain of 25/2%. If D pays Rs. 29.70, A purchased the article for
(a) Rs. 40   (b) Rs. 10
(c) Rs. 20   (d) Rs. 30

210. A sells a suitcase to B at 10% profit. If B pays Rs. 2,860 for it, then the price at which A bought is
(a) Rs. 1,000   (b) Rs. 1,600
(c) Rs 26,00   (d) Rs. 2,500

211. A sells a cycle to B at a profit of 20% and B sells it to C at a loss of 25%. If C bought the cycle for Rs. P, then the cost price of it for A was
(a) Rs. 1/20 P   (b) Rs. 9/20 P
(c) Rs. 9/10 P   (d) Rs. 10/9 P

212. A man buys a cycle for Rs. 1400 and sells it at a loss of 15%. What is the selling price of the cycle?
(a) Rs. 1202   (b) Rs. 1190
(c) Rs. 1160   (d) Rs. 1000

213. On selling an article for Rs. 651, there is a loss of 7%. The cost price of that article is
(a) Rs. 744   (b) Rs. 751
(c) Rs. 793   (d) Rs.700

214. Find the selling price of an article if a shopkeeper allows two successive discounts of 5% each on the marked price of Rs. 80
(a) Rs. 70.20   (b) Rs. 70. 10
(c) Rs. 72.00   (d) Rs. 72.20

215. A saleable article passes successively in the hands of three traders. Each trader sold it further at a gain of 25% of the cost price. If the last trader sold it for Rs. 250 then what was the cost price for the first trader ?
(a) Rs. 128   (b) Rs. 150
(c) Rs. 192   (d) Rs. 200

216. A reduction of 20% in the price of salt enabled a purchaser to obtain 4 kg. more for Rs. 100. The reduced. price of salt per kg is :
(a) Rs. 4   (b) Rs. 5
(c) Rs. 6.25   (d) Rs. 6.50

217. Joseph's salary is reduced by 10%. In order to have his salary back to his original amount it must be raised by
(a) 12.5%   (b) 100/9%
(c) 10%   (d) 11%

218. The price of an article is cut by 10%. To restore it to former value the new price must be increased by
(a) 10%   (b) 9%.
(c) 100/9%   (d) 11%

219. An increase of 20% in the price of mangoes enables a person to purchase 4 mangoes less for Rs. 40. The price of 15 mangoes before increase was
(a) Rs. 10   (b) Rs. 15
(c) Rs 20   (d) Rs. 25

220. A reduction of 20% in the price of sugar, enables me to purchase 5 kg more for Rs. 600. Find the price of sugar per kg before reduction of price.
(a) Rs. 24   (b) Rs. 30
(c) Rs. 32   (d) Rs. 36

221. A shopkeeper gains 20% while buying the goods and 30% while selling them. Find his total gain percent.
(a) 50%   (b) 36%
(c) 56%   (d) 40%

222. A tradesman, means of a false balance defrauds. 10 percent in buying goods and also defrauds 10 percent in selling. His gain percent is

(a) 10   (b) 11
(c) 21   (d) 100

223. A dishonest grocer sells rice at profit of 10% and also uses weights which are 20% less than the marked weight. The total gain earned by him will be
(a) 37.5%   (b) 32%
(c) 30.5%   (d) 35%

224. A dishonest dealer professes to sell his goods at the cost price but uses a false weight of 850 g instead of 1. kg, his gain percent is
(a) 101/17%   (b) 100/17%
(c) 1212/17%   (d) 198/17%

225. A nan bought two goats for Rs. 1008, He sold one at a loss of 20% and other at a profit of 44% if each goat was sold for the same price the cost price of the goat which was sold at loss, was :
(a) Rs. 648   (b) Rs. 360
(c) Rs. 568,   (d) RS. 440

226. The total cost price of two watches is Rs. 840 one is sold at a profit of 16 percent aid the other at a loss of 12 percent. There is no loss or no gain, in the whole transaction. The cost price of the watch on which the shopkeeper gains, is
(a) Rs. 360   (b) Rs. 370
(c) Rs. 380   (d) Rs. 390

227. One trader calculates the percentage of profit on the buying price and another calculates on the selling price. When their selling prices are the same, then the difference of their actual profits is Rs. 85 and both claim to have made 20% profit, what is the selling price of each ?
(a) Rs. 1700   (b) Rs. 2100
(c) Rs. 2550   (d) Rs. 2750

228. A trader bought two horses for Rs. 19,500. He sold one at a loss of 20% and the other at a profit of 15%. If the selling price of each horse is the same, then their cost prices are respectively.
(a) Rs. 10,000 and Rs. 9,500   (b) Rs. 11,500 and Rs. 8,000
(c) Rs. 12,000 and Rs. 7,500   (d) Rs. 10,500 and Rs. 9,000

229. X sells two articles for Rs. 4,000 each with no loss and no gain in the transaction. If one was sold at a gain of 25% the other is sold at a loss of
(a) 25%   (b)164/9%
(c) 50/3 %   (d) 20%

230. A man purchases two fans for Rs. 2,160. By selling one fan at a profit of 15% and the other at a loss of 9% he neither gains nor loss in the whole transaction. Find the cost price of each fan in Rs.
(a) 710, 1450   (b) 1530,630
(c) 810,350   (d) 1340,820

231. If I would have purchased 11 article for Rs. 10 and sold all the articles at the rate of 10 for Rs. 11, the profit percent would have been :
(a) 10%.   (b) 11%

(c) 21%   (d) 100%

232. A person buys some pencils at 5 for a rupee and sells them at 3 for a rupee. His gain percent will be:
(a) 200/3 %   (b) 230/3%
(c)170/3%   (d) 140/3%

233. 100 oranges are bought from Rs. 350 and sold at the rate of. Rs. 48 per dozen. The percentage of profit or loss is :
(a) 15% loss   (b), 15% gain
(c)100/7% loss   (d) 100/7 % profit

234. Oranges are bought the rate of 10 for Rs. 25 and sold at the rate of 9 for Rs. 25. The profit is
(a) 100/11%   (b) 10%
(c) 100/9%   (d) 25/2%

235. Some articles were bought at 6 for Rs. 5, and sold at 5 for Rs. 6, Gain percent is :
(a) 5%   (b) 6%
(c) 30%   (d) 44%

236. A person bought some articles at the rate of 5 per rupee and the, same number at the rate of 4 per rupee. He mixed both the types and sold at the rate of 9 for 2 rupees. In this business he suffered a loss of Rs. 3. The total number of articles bought by him was
(a) 1090   (b) 1080
(c) 540   (d) 545

237. A man bought pencils at the rate of 6 for Rs. 4 and sold them at the rate of 4 for Rs. 6 his gain in the transaction is :
(a) 75%   (b) 80%
(c) 125%   (d) 100%

238. Ravi buys some toffees at 2 for a rupee and sells them, at 5 for rupee. His loss percent is
(a) 120   (b) 90
(c) 30   (d) 60

239. Some toffees were bought at the rate of 11 for Rs. 10 and the same number at the rate of 9 for Rs. 10. If the whole lot was sold at one rupee per toffee, then the whole transaction was
(a) loss of 1%   (b) gain of 1%
(c) neither gain nor loss   (d) gain of 1.5%

240. A man buys a certain number of oranges at 20 for Rs. 60 and an equal number at 30 for Rs. 60. He mixes them and sells them at 25 for Rs. 60. What is gain or loss percent
(a Gain of 4%   (b) Loss of 4% (c) Neither gain nor loss   (d) Loss of 5%

241. If the total cost of 73 articles having equal cost is Rs. 5,110 and the total selling price of 89 such articles is Rs. 5,607, then in the transaction, there will be
(c) a loss of 10%   (d) a gain of 15%

242. A fruit vendor bought bananas at the rate of 5 for a rupee and sold them 4 for a rupee. The percent gain or loss is -
(a) 25/2 %gain   (b) 25% loss
(c) 25% gain   (d) 25/2% loss

243. A man purchased some eggs at 3 for Rs. 12. Thus he gained Rs. 143 in all. the number of eggs he bought is
(a) 210　　　　(b) 200
(c) 195　　　　(d) 190

244. A man bought oranges at the rate of 8 for Rs. 34 and sold them at the rate of 12 for Rs. 57. How many oranges should be sold to earn a met profit of Rs. 45 ?
(a) 90　　　　(b) 100
(c) 135　　　　(d) 150

245. If I purchased 11 books for Rs. 100 and sold 10 books for Rs. 110, the percentage of profit per book sold is
(a) 10　　　　(b) 11.5
(c) 17.3　　　　(d) 21

246. A shop-man bought pens at the rate of 7 for Rs. 10 and sold them at a profit of 40%. How many pens would a customer get for Rs. 10?
(a) 6　　　　(b) 4
(c) 5　　　　(d) 3

247. Krishan purchased a number of articles at Rs. 10 for each and the same number for Rs. 14 each. he mixed them together and sold them for Rs. 13 each. Then his gain or loss percent is .
(a) Loss 25/3 %　　(b) Gain 25/3
(c) Loss 26/3 %　　(d) Gain 25/3 %

248. A man purchases some oranges at the rate of 3 for 40 and the same quantity at 5 for 60. If he sells all the oranges at the rate of 3 for 50, find his gain or loss percent (to the nearest integer)
(a) 34% loss　　(b) 31% profit
(c) 31% loss　　(d) 32% profits

249. The price of coal is increased by 20%, By what percent a family should decrease its consumption so that expenditure remains same ?
(a) 40%　　　　(b) 140/3%
(c) 20%　　　　(d) 50/3%

250. Nikita bought 30 kg of wheat at the rate of Rs. 9.50 per kg of wheat and the same amount of wheat at the rate of Rs. 8.50 per kg and mixed them. She sold the mixture at the rate of Rs. 8.90 per kg. Her total profit or loss in the transaction was :
(a) Rs. 2 loss　　(b) Rs. 2 profit
(c) Rs. 6 loss　　(d) Rs. 6 profit

251. Nita blends two varieties of tea one costing Rs. 180 per and another costing Rs. 200 per kg in the ratio 5 : 3, If she sells the blended variety at Rs. 210 per kg then her gain is
(a) 110 percent　　(b) 11 percent
(c) 12 percent　　(d) 13 percent

252. A shopkeeper bought 80 kg of sugar at the rate of Rs. 13.50 per kg. He mixed it with 120 kg of sugar costing Rs. 16 per kg in order to make a profit of 20%, he must sell the mixture at
(a) Rs. 18 per kg　　(b) Rs. 17 per kg
(c) Rs. 16.40 per kg　　　　　　(d) Rs. 15 per kg

253. To gain 10% on selling the mixture of milk and water at the cost price of pure milk, the quantity of water to be mixed with 50 kg of pure milk is
(a) 2.5 kg　　　(b) 5 kg
(c) 7.5 kg　　　(d) 10 kg

254. A milkman bought 70 litres of milk for Rs. 630 and added 5 litres of water. If the sells it at Rs. 9.00 per litre, his profit percentage is
(a) 41/5%　　　(b) 7%
(c) 42/5%　　　(d) 50/7%

255. A milkman makes 20% profit by selling milk mixed with water at Rs. 9 per liter. If the cost price of 1 liter Rs. 10, then the ratio of milk and water in the said mixture is :　　(a 3 : 1　　　　(b) 4: 1
(c) 3 : 2　　　(d) 4 : 3

256. A shopkeeper bought 15 kg of rice at the rate of Rs. 29 per kg and 25 kg of rice at the rate of Rs. 20 per kg. He sold the mixture of both types of rice at the rate of Rs. 27 per kg. His profit in this transaction is
(a) Rs. 125　　(b) Rs. 150
(c) Rs. 140　　(d) Rs. 145

257. Two blends of a commodity costing Rs. 35 and Rs. 40 per kg respectively are mixed in the ratio 2 : 3 by weight. If one-fifth of the mixture is sold at Rs. 46 per kg and the Remaining at the rate Rs. 55 per kg, the profit percent is
(a) 50　　　　(b) 20
(c) 40　　　　(d) 30

258. A milkman mixed the water with milk to gain 25% by selling the mixture at cost price. The ratio of water and milk is
(a) 5 : 4　　　(b) 1 : 5
(c) 4 : 5　　　(d) 1 : 4

259. On selling 17 balls at Rs. 720 there is a loss equal to the cost price of 5 balls. The cost price of a ball is :
(a) Rs. 45　　(b) Rs. 50
(c) Rs. 60　　(d) Rs. 55

260. Mohan bought 25 books for Rs. 2,000 and sold them at a profit equal to the selling price of 5 books. The selling price of 1 book is :
(a) Rs. 100　　(b) Rs. 120
(c) Rs. 150　　(d) Rs. 200

261. By selling 144 hens Mahesh suffered a loss equal to the selling price of 96 hens. His loss percent is
(a) 40　　　　(b) 30
(c) 50　　　　(d) 41

262. By selling 100 pencils, a shopkeeper gains the selling price of 20 pencils. His gain percent is
(a) 25　　　　(b) 20
(c) 15　　　　(d) 12

263. By selling 1 dozen ball pens, a shopkeeper earned the profit equal to the selling price of 4 ball pens. His profit percent is
(a) 50　　　　(b) 40
(c) 100/3　　　(d) 125/4

264. By selling 33 meters of cloth a person gains the cost price of 11 meters. Find his gain%
(a) 100/3%   (b) 67/2%
(c) 33%   (d) 103/3%

265. A cloth merchant on selling 33 meters of cloth obtains a profit equal to the selling price of 11 meters of cloth the profit is
(a) 40%   (b) 22%
(c) 50%   (d) 11%

266. By selling 25 meters of cloth a trader gains the selling price of 5 meters of cloth. The gain of the trader in % is
(a) 25   (b) 20
(c) 28   (d) 29

267. An item costing Rs. 840 was sold by a shopkeeper at a gain of 10% and it was again sold by the new buyer at a loss of 5%. Find selling price of the item is :
(a) Rs. 877.80   (b) Rs. 798
(c) Rs. 924   (d) Rs. 37.80

268. By selling an article at 2/3 of the marked price, there is a loss of 10%, The profit percent, when article is sold at the marked price is :
(a) 20 %   (b) 30%
(c) 35%   (d) 40%

269. A merchant fixes the sale price of his goods at 15% above the cost price, He sells his goods at 12% less than the fixed price. His percentage of profit is:
(a) 5/2   (b) 6/5
(c) 3/2   (d) 2

270. A person sells an article for Rs. 75 and gains as much percent as the cost price of the article in rupees. The cost price of the article is
(a) Rs. 37.50   (b) Rs. 40
(c) Rs. 50   (d) Rs. 150

271. I purchased 120 exercise books at the rate of Rs. 3 each and sold 1/3 of them at the rate of Rs. 4 each 1/2 them at the rate of Rs. 5 each and the rest at the cost price. My profit percent was
(a) 44%   (b)400/9%
(c) 134/3%   (d) 45%

272. A merchant buys an article for Rs. 27 and sells it at a profit of 10% of selling price. The selling price of the article is :
(a) Rs. 29.70   (b) Rs. 30
(c) Rs. 37   (d) Rs. 32

273. A clock was sold for Rs. 144. If the percentage of profit was numerically equal to the cost price the cost of the clock was
(a) Rs. 72   (b) Rs. 80
(c) Rs. 90   (d) Rs. 100

274. If the price of eraser is reduced by 25%. A person can buy 2 more erasers for a rupee. How many erasers are available for a rupee after reduction?
(a) 8   (b) 6
(c) 4   (d) 2

275. Raghavan purchased a scooter at 13/15 of its selling price and sold it at 12% more than its selling price. His gain is.
(a) 20%   (b) 30%
(c) 495/13%   (d)380/13%

276. By what percent must the cost price be raised in fixing the sale price in order that there may be a profit of 20% after allowing a commission of 10 ?
(a) 25   (b) 400/3
(c) 100/3   (d) 30

277. Two- third of a consignment was at a profit of 5% and the remainder at a loss of 2%. If the total profit was Rs. 400, then the value of the consignment was
(a) Rs. 15,000   (b) Rs. 15,500
(c) Rs. 16,000   (d) Rs. 16,500

278. A man buys a field of agricultural land for Rs. 3,60,000 . He sells two-fifths a gain of 25%. At what price must he sell the remaining field so as to make an overall profit of 10% ?
(a) Rs. 1,00,000   (b) Rs. 1, 15,000
(c) Rs. 2,16,000   (d) Rs. 1,25,000

279. A dealer sold 3/ 4 of his articles at a gain of 20% and the remaining at cost price. The gain percent earned by him in the whole transaction is
(a) 13   (b) 14
(c) 15   (d) 16

280. A man buys some articles at Rs. P per dozen and sells them at Rs. P/8 per piece. His profit percent is
(a) 30   (b) 40
(c) 50   (d) 60

281. By selling an article, a man makes a profit of 25% of its selling price. His profit percent is
(a) 20   (b) 25
(c) 50/3   (d) 100/3

282. 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
(a) 24   (b) 50/3
(c) 25/3   (d) 20

283. A cloth merchant sold half of his cloth at 20% profit, half of the remaining cloth at 20% loss and the rest was sold at his cost price. In the total transaction, his gain or loss will be
(a) 5% profit   (b) Neither loss nor gain
(c) 5% loss   (d) 10% profit

284. A man bought 20 dozen eggs for Rs. 720. What should be the selling price of each egg if he wants to make a profit of 20% ?
(a)Rs. 3.25   (b) Rs. 3.30
(c) Rs. 3.50   (d) Rs. 3.60

285. A vendor sells lemons at the rate of 5 for Rs. 14. gaining hereby 40% . For how much did he buy a dozen lemons
(a) 20   (b) Rs. 21
(c) RS. 24   (d) RS. 28

286. Mahesh purchased a radio at 9/10 of its selling price and sold it at 8% more than its original selling price. His gain percent is :
(a) 20%   (b) 18%
(c) 10%   (d) 8%

287. Richa purchased an article at 4/5 of its list price and sold it at 20% more than the list price. Richa's profit percent was
(a) 50   (b) 40
(c) 30   (d) 25

288. The difference between the selling price of an article at a profit of 15% and at a profit of 10% is Rs. 10. The cost price of the article is
(a) Rs. 100   (b) Rs. 120
(c) Rs. 150   (d) Rs. 200

289. The difference between the selling price and cost price of an article is Rs. 210. If the profit percent is 25, then the selling price of the article is
(a) Rs. 950   (b) 1,050
(c) 1,150   (d) Rs. 1,250

290. If the difference between the selling prices of an article at profit of 6% and 4% is Rs. 3. Then the cost price of the article should be :
(a) Rs. 100   (b) Rs. 150
(c) Rs. 175   (d) Rs. 200

291. If selling price of an article is reduced by 60%, then there is a loss of 10% on cost price. The initial profit percent was :
(a) 70   (b) 80
(c) 100   (d) 125

292. If the cost price is 95% of the selling price, what is the profit percent ?
(a) 4   (b) 4.75
(c) 5   (d) 5.26

293. If the cost price is 90% of the selling price, what is the profit percent ?
(a) 4   (b) 4.75
(c) 5   (d) 100/9

294. When the price of cloth was reduce by 25%, the quantity of cloth consumption increased by 20% what was the effect on gross receipt of the shop ?
(a) 5% increase   (b) 5% decrease
(c) 10% increase   (d) 10% decrease

295. A dealer sold 3/4 th of his articles at a gain of 24% the remaining at cost price . Then the percentage of gain in the whole transaction is
(a) 15   (b) 18
(c) 24   (d) 32

296. An item when sold for Rs. 1,690 earned 30% profit on the cost price, Then the cost price is
(a) Rs. 507   (b) Rs. 630
(c) Rs. 1,300   (d) Rs. 130

297. A sells an article to B making a profit of 1/5 of his outlay. B sells it to C, gaining 20%. If C sells it for Rs.

600 and incurs a loss of 1/6 of his Outlay, the cost price of A is
(a) Rs. 600   (b) Rs. 500
(c) Rs. 720   (d) Rs. 800

298. 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 ?
(a) 10   (b) 13
(c) 14   (d) 17/2

299. Two items A and B are sold at a profit of 10% and 15% respectively, If the amount of profit received is the same, then the cost price of A and B may be
(a) Rs. 1,000, Rs. 1,500   (b) Rs 5,000, Rs. 2,000
(c) Rs. 3,000, Rs. 2,000   (d) Rs. 3,000, Rs. 5,000

300. Gita buys a plot of land for Rs. 96,000. She sell 2/5 of it at a loss of 6%. She wants to make a profit of 10% on the whole transaction by selling the remaining land. The gain % on the remaining land is
(a) 20   (b) 62/3
(c) 14   (d) 7

301. A shopkeeper sold his gods at half the list price and thus lost 20%. If he had sold on the listed price, his gain percentage would be
(a) 60%   (b) 72%
(c) 20%   (d) 35%

302. A man bury a toy for Rs. 25 and sells it for Rs. 30. His gain percent is
(a) 20%   (b) 10%
(c) 5%   (d) 2.5%

303. There is 10% loss if an article is sold at Rs. 270. Then the cost price of the article is :
(a) Rs. 320   (b) Rs. 250
(c) Rs. 270   (d) 300

304. Salary of a person is increased by 20%, then it is decreased by 20%. Change in his salary is :
(a) 4% decreased   (b) 4% increased
(c) 8% decreased   (d) neither decrease nor increase

305. A merchant finds his profit as 20% of the selling price. His actual profit is
(a) 20%   (b) 22%
(c) 25%   (d) 30%

306. The cost price of a book is Rs. 150. At what price should it be sold to gain 20% ?
(a) Rs. 120   (b)Rs. 180
(c) Rs. 100   (d) Rs. 80

307. Oranges are bought at 7 for Rs. 3. At what rate per hundred must they be sold to gain 33%?
(a) Rs. 56   (b) Rs. 60
(c) Rs. 60   (d) Rs. 57

308. A loss of 20% is incurred when 6 articles are sold for a rupee. To gain 20% how many are items should be sold for a rupee ?
(a) 1   (b) 2

(c) 3　　　　(d) 4

309. By selling 12 oranges for Rs. 60, a man loses 25%. The number of oranges he has to sell for Rs. 100, so as to gain 25% is
(a) 10　　　　(b) 11
(c) 12　　　　(d) 15

310. By selling 4 articles for 1 rupee, a man losses 4%. Had he sold three articles per rupees, the profit would have been :
(a) 30%　　　　(b) 28%
(c)16%　　　　(d) 12%

311. By selling 80 ball pens for Rs. 140 a retailer losses 30%. How many ball pens should he sell for Rs. 104 so as to make a profit of 30% ?
(a)32　　　　(b) 52
(c)48　　　　(d) 42

312. By selling 90 ball pens for Rs. 160 a person loses 20%. The number of ball pens, which should be sold for Rs. 96 so as to have a profit of 20% is
(a)36　　　　(b) 37
(c)46　　　　(d) 47

313. The loss incurred on selling 21 articles equals the selling price of 3 articles. Then the loss percent is
(a)100/11%　　　　(b)10%
(c)25/2%　　　　(d) 100/9%

314. A man sold 250 chairs and had a gain equal to selling price of 50 chairs. His profit percent is :
(a)20%　　　　(b)25%
(c)50%　　　　(d) 15%

315. A vendor loses the selling price of 4 oranges on selling 36 oranges. His loss percent is
(a)25/2%　　　　(b)9%
(c)10%　　　　(d) 25/2%

316. If bananas are bought at the rate of 4 for a rupee, how many must be sold for a rupee so as to gain 100/3%.
(a)4　　　　(b) 3
(c)2.5　　　　(d)2

317. By selling 12 kg of potatoes for 63, a shopkeeper gains 5%. What does his gain or lose percent by selling 50 kg of the same potatoes for 247.50 ?
(a) 1% profit　　　　(b) 1% loss
(c) No profit no loss　　　　(d) 2.5 profit

318. By selling 14 watches of equal cost price at the rate of Rs. 450 each, there is a profit equal to the cost price of 4 watches. The cost price of a watch is
(a) Rs. 350　　　　(b) Rs. 360
(c) Rs. 375　　　　(d) Rs. 400

319. Nikita bought 30 kg of wheat at the rate of Rs. 9.50 per kg of wheat and the same amount of wheat at the rate of Rs. 8,50 per kg and mixed them. She sold the mixture at the rate of Rs. 8.90 per kg. Her total profit or loss in the transaction was
(a) Rs. 2 loss　　　　(b) Rs. 2 profit
(c) Rs. 6 loss　　　　(d) Rs. 6 profit

320. A man buys 12 articles for Rs. 12- and sells them at the rate of Rs. 1.25 per article. His gain percentage is :
(a) 20　　　　(b) 25
(c) 15　　　　(d) 18

321. A trader bought 10 kg of apples for Rs. 405 out of which 1 kg of apples were found to he rotten. If he wished to make a profit of 10% at what rate should he sell the remaining apples per kg ?
(a) 49.5　　　　(b) 48
(c) 46　　　　(d) 47

322. 12 copies of a book were sold for Rs. 1800 - there by gaining cost price of 3 copies. The cost price of a copy is :
(a) Rs. 120/ -　　　　(b) Rs. 150/-
(c) Rs. 1200/-　　　　(d) Rs. 1500/-

323. A book-seller bought 200 textbooks for Rs. 12,000. He wanted to sell them at a profit so that he got 20 books free, At what profit percent should he sell them ?
(a) 10　　　　(b) 11
(c) 11.5　　　　(d) 12

324. If the sales tax be reduced from 7/2% to 10/3%, what difference does it make to person who purchases all article whose marked price is Rs. 8,400 ?
(a) Rs. 20　　　　(b) Rs. 15.
(c) Rs. 14　　　　(d) Rs. 10

325. In terms of percentage profit which is the best transaction? C. P. (in Rs.) (I) 36 (II) 50 (III)40 (IV)60

	C. P. (in Rs.)	Profit (in Rs.)
(I)	36	17
(II)	50	24
(III)	40	19
(IV)	60	29

(a)I　　　　(b) II
(c) II　　　　(d) IV

326. A man bought an old typewriter for Rs. 1200 and spent Rs. 200 on its repair. He sold it for Rs. 1680. His profit percent is ;
(a) 20%　　　　(b) 10%
(c) 8%　　　　(d) 16%

327. The cost price of two dozen bananas is Rs. 32. After selling 18 bananas at the rate of Rs. 12 per dozen, the shopkeeper reduced to rate as Rs. 4 per dozen, The percent loss is
(a) 25.2%　　　　(b) 32.4%
(c) 36.5%　　　　(d) 37.5 %

328. The price of a jewel, pas sing through three hands. rises on the whole by 65%. If the first and the second sellers earned 20% and 25% profit respectively, the profit earned by the third seller is
(a) 20%　　　　(b) 15%
(c) 10%　　　　(d) 5%

329. A person buys 10 cups at Rs. 10 each. On 20 cups are broken sells the remaining cups at Rs. 11 each. His loss percent is :
(a) 15   (b) 10
(c) 35/2   (d) 12

330. If the cost of pins reduces by Rs. 4 per dozen, 12 more pins can be purchased for Rs. 48. The cost of pins per dozen after reduction is :
(a) Rs. 8   (b) Rs. 12
(c) Rs. 16   (d) Rs. 20

331. A piece of land came to a person through three middleman each gaining 20%. If the person purchased the land for Rs. 3,45,600 the original cost of the land was :
(a) Rs. 1,00,000   (b) Rs. 1,50,000
(c) Rs. 1,75,800   (d) Rs. 2,00,000

332. If a man estimates his loss as 20% of the selling price, then his loss percent is:
(a) 20%   (b) 25%
(c) 40/3%   (d) 50/3 %

333. A person bought two articles A and B for Rs. 5,000. he sold A at 20% profit and B at 10% loss. He thus gained 2% on his out lay. The cost price of A was
(a) Rs. 3,000   (b) Rs. 2,500
(c) Rs. 2,000   (d) Rs. 3,500

334. A person sold a TV for Rs. 9,400 then he lost a particular amount, When he sold another TV of the same type at Rs. 10,600, his gain was double the former loss, What was the cost price of each TV?
(a) Rs. 9,800   (b) Rs. 10,000
(c) Rs. 10,200   (d) Rs. 10,400

335. A man sold 20 apples for Rs. 100 and gained 20%. How many apples did he buy for Rs. 100 ?
(a) 20   (b) 22
(c) 24   (d) 25

336. A person bought 50 pens for Rs. 50 each. He sold 40 of them at a loss of 5%. he wants to gain 10% on the whole. Then his gain percent on the remaining pens should be
(a) 15   (b) 40
(c) 50   (d) 70

337. A cloth merchant sold half of his cloth at 40% profit, half of remaining at 40% loss and the rest was sold at the cost price. In the total transaction his gain or loss will be
(a) 20% gain   (b) 25% loss
(c) 10% gain   (d) 15% loss

338. A person sold an article at 20% profit on the selling price. After wards, when the cost price reduced by 10%, then he also reduced the selling price by 10%. His percentage of profit on cost price will be
(a) 30   (b) 25
(c) 22.5   (d) 12.5

339. A salesman expects a gain of 13% on his cost price, if in a month his sale was Rs. 7,91,000, what was his profit ?
(a) Rs. 85,659   (b) Rs. 88,300
(c) Rs. 91,000   (d) Rs. 97,786

340. By selling a car for Rs. 64,000 Mr. Rao lost 20%, Then the cost price of the car is :
(a) Rs. 72,000   (b) Rs. 76,800
(c) Rs. 80,000   (d) Rs. 84,000

341. A retailer buys a radio for Rs. 225, . His overhead expenses are Rs. 15. He sells the radio for Rs. 300. The profit percent of the retailer is :
(a) 25   (b) 80/3
(c) 20   (d) 100/3

342. Ramesh bought 10 cycles for Rs. 500 each. He spent Rs. 2,000 on the repair of all cycles. He sold five of them for Rs. 750 each and the remaining for Rs. 550 each. Then the total gain or loss % is
(a) Gain of 25/3%   (b) Loss of 25/3%
(c) Gain of 23/3%   (d) Loss of 50/7%

343. 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 Rs. 2 less, he would have gained 10%. The cost price of the article is
(a) Rs. 250   (b) Rs. 350
(c) Rs. 200   (d) Rs. 400

344. A man purchase 150 pens at the rate of Rs. 12 pen. He sold 50 pens at a gain of 10%. The percentage gain at which he must sell the remaining pens so as to gain 15% on the whole outlay is
(a) 43/2%   (b) 20%
(c) 17%   (d) 35/2%

345. A trader purchases a watch and a wall clock for Rs. 390. He sells them making a profit of 10% on the watch and 15% on the wall clock. He earns a profit of Rs. 51.50. the difference between the original price of the wall clock and the watch is equal to
(a) Rs. 80   (b) Rs. 120
(c) Rs. 110   (d) Rs. 100

346. A merchant fixed the selling price of his articles at Rs. 700 after adding 40% profit to the cost price. As the sale was very low at this price level, he decided to fix the selling price at 10% profit. Find the new selling price.
(a) Rs. 500   (b) Rs. 550
(c) Rs. 450   (d) Rs. 490

347. From 2008 to 2009, the sales of a book decreased by 80%. If the sales in 2010 were the same as in 2008, by what percent did it increase from 2009 to 2010 ?
(a) 120%   (b) 400%
(c) 80%   (d) 100%

348. The cost price of a radio is Rs. 600 .The 5% of the cost price is charged towards transportation. After adding that, If the net profit to be made is 15%, them the selling price of the radio must be

(a) Rs. 704.50　　(b) Rs. 724.50
(c) Rs. 664.50　　(d) Rs. 684,50

349. A shopkeeper purchased a TV for Rs. 2,000 and a radio for Rs. 750. He sells the TV at a profit of 20% and the radio at a loss of 5%. The total loss or gain is
(a) Gain Rs. 352.50　　　　(b) Gain Rs. 362.50
(c) Loss Rs. 332　　(d) Loss Rs. 300

350. The total cost of 8 buckets and 5 mugs is Rs. 92 and the total cost of 5 buckets and 8 mugs is Rs. 77. Find the cost of 2 mugs and 3 buckets.
(a) Rs. 35　　(b) Rs. 70
(c) Rs. 30　　(d) Rs. 38

351. A man bought a horse and a carriage for Rs. 40,000. He sold the horse at a gain of 10% and the carriage at a loss of 5%. He gained 1% on his whole transaction. The cost price of the horse was :
(a) Rs. 15000　　(b) Rs. 16000
(c) Rs. 18000　　(d) Rs. 20000

352. A person bought two bicycles Rs. 1600 and sold the first at profit and the second at 20% profit If he sold the first at 20% profit and the second at 10% profit. He would get Rs. 5 more. The difference of the cost price of the two bicycles was :
(a) Rs. 50
(c) Rs. 25　　(b) Rs. 40　　(d) Rs. 75

353. A man buys 3 cows and 8 goats in Rs. 47,200, Instead if he would have bought 8 cows and 3 goats he had to pay Rs. 53,000 more. Cost of one cow is :
(a) Rs. 11,000　　(b) Rs. 12,000
(c) Rs. 13,000　　(d) Rs. 10,000

354. A fruit seller buys 240 apples for Rs. 600. Some of these apples are bad and are thrown away, He sells the remaining apples at Rs. 3.50 each and makes a profit of Rs. 198, The% of apples thrown away are?
(a) 6%　　(b) 5%
(c) 4%　　(d) 7%

355. A vendor purchased 40 dozen bananas for Rs. 250. Out of these 30 bananas were rotten and could not be sold. At what rate per do should he sell the remaining bananas to make a profit a of 20%.
(a)Rs. 12　　(b) Rs. 10
(c) Rs. 8　　(d) Rs. 6

356. If a chair sold for Rs. 600 at the profit of 20%, then the original price of the chair is :
(a) Rs. 540　　(b) Rs. 500
(c) Rs. 480　　(d) Rs. 580

357. Pawan kaul earns 15 percent on an investment but loses 10 percent on another investment. If the ratio of two investments is 3 : 5, then the combined loss percent is
(a) 5/4　　(b) 4/5
(c) 8/5　　(d) 5/8

358. A trader sells two bullocks for Rs. 8,400 each, neither. losing nor gaining in total. If he sold one of the bullocks at a gain of 20%, the other is sold at a loss of

(a) 20%　　(b) 164/9%
(c) 100/7%　　(d) 21%

359. A merchant has 1000 kg Sugar, part of which he sell at 8% profit and the rest at 18% profit. He gains 14% on the whole. The quantity sold at 8% profit is :
(c) 400 kg　　(d) 560 kg

360. A trader lists his article 20% above the cost price and allows a discount of 10% on cash payment. His gain percent is
(a) 8%　　(b) 5%
(c) 10%　　(d) 6%

ANSWER :

1 a	**2** c	**3** d	**4** b	**5** c	**6** b
7 a	**8** a	**9** d	**10** d	**11** d	**12** b
13 a	**14** a	**15** d	**16** d	**17** d	**18** a
19 b	**20** b	**21** d	**22** b	**23** b	**24** d
25 c	**26** d	**27** d	**28** b	**29** d	**30** c
31 c	**32** c	**33** c	**34** c	**35** d	**36** a
37 c	**38** d	**39** c	**40** b	**41** c	**42** b
43 c	**44** d	**45** a	**46** c	**47** b	**48** b
49 d	**50** b	**51** d	**52** d	**53** d	**54** c
55 c	**56** b	**57** d	**58** d	**59** a	**60** d
61 a	**62** c	**63** d	**64** c	**65** a	**66** d
67 b	**68** a	**69** c	**70** c	**71** b	**72** b
73 c	**74** a	**75** b	**76** c	**77** c	**78** b
79 c	**80** a	**81** a	**82** c	**83** d	**84** b
85 d	**86** c	**87** d	**88** b	**89** c	**90** a
91 a	**92** c	**93** b	**94** d	**95** d	**96** c
97 c	**98** b	**99** b	**100** a	**101** a	**102** b
103 b	**104** a	**105** b	**106** b	**107** a	**108** b
109 c	**110** a	**111** b	**112** d	**113** c	**114** c
115 c	**116** a	**117** b	**118** c	**119** a	**120** c
121 a	**122** b	**123** c	**124** a	**125** a	**126** d
127 a	**128** b	**129** b	**130** b	**131** d	**132** d
133 a	**134** b	**135** b	**136** d	**137** c	**138** d
139 b	**140** b	**141** d	**142** a	**143** d	**144** b
145 c	**146** d	**147** d	**148** a	**149** a	**150** a
151 d	**152** c	**153** d	**154** b	**155** d	**156** a
157 c	**158** d	**159** d	**160** a	**161** c	**162** c
163 c	**164** b	**165** d	**166** d	**167** c	**168** c
169 d	**170** a	**171** d	**172** c	**173** c	**174** c
175 a	**176** c	**177** d	**178** d	**179** b	**180** b
181 b	**182** d	**183** a	**184** a	**185** b	**186** d
187 c	**188** c	**189** c	**190** a	**191** a	**192** a
193 d	**194** d	**195** c	**196** c	**197** c	**198** c
199 c	**200** a	**201** a	**202** c	**203** c	**204** d
205 b	**206** c	**207** d	**208** d	**209** c	**210** c
211 d	**212** b	**213** d	**214** d	**215** a	**216** b
217 b	**218** c	**219** d	**220** b	**221** c	**222** c

223 a	**224** b	**225** a	**226** a	**227** c	**228** b
229 c	**230** c	**231** c	**232** a	**233** d	**234** c
235 d	**236** b	**237** c	**238** d	**239** a	**240** b
241 c	**242** c	**243** d	**244** a	**245** d	**246** c
247 d	**248** d	**249** d	**250** c	**251** c	**252** a
253 b	**254** d	**255** a	**256** d	**257** c	**258** d
259 c	**260** a	**261** a	**262** a	**263** a	**264** a
265 c	**266** a	**267** a	**268** c	**269** b	**270** c
271 b	**272** b	**273** b	**274** a	**275** d	**276** c
277 a	**278** c	**279** c	**280** c	**281** d	**282** b
283 a	**284** d	**285** c	**286** a	**287** a	**288** d
289 b	**290** b	**291** d	**292** d	**293** d	**294** d
295 b	**296** c	**297** b	**298** c	**299** d	**300** b
301 a	**302** a	**303** d	**304** a	**305** c	**306** b
307 d	**308** d	**309** c	**310** b	**311** a	**312** a
313 c	**314** b	**315** c	**316** b	**317** b	**318** a
319 c	**320** b	**321** a	**322** a	**323** a	**324** c
325 d	**326** a	**327** d	**328** c	**329** d	**330** b
331 d	**332** d	**333** c	**334** a	**335** c	**336** d
337 c	**338** b	**339** c	**340** c	**341** a	**342** d
343 c	**344** d	**345** c	**346** b	**347** b	**348** b
349 b	**350** a	**351** b	**352** a	**353** b	**354** b
355 c	**356** b	**357** d	**358** c	**359** c	**360** a

1. (a) Given
   36 CP = 30 SP
   $CP/SP = \frac{30}{36} = \frac{5}{6}$ = 1 Profit
   Profit % $= \frac{Profit}{CP} \times 100 =$
   $\frac{1}{5} \times 100$ = 20%

2. (c) Given
   15 CP = 10 SP
   $\frac{CP}{SP} = \frac{10}{15} = \frac{2}{3} > 1 \ (Profit)$
   Profit % $= \frac{Profit}{CP} \times 100 = \frac{1}{2} \times 100$ = 50%

3. (d) Given, SP of 5 articles = CP of 3 articles
   $\frac{SP}{CP} = \frac{3}{5}$
   Thus, Loss = 5 − 3 = 2
   Loss $= \frac{2}{5} \times 100$ = 40%

4. (b) According to question,
   SP of 3 toys = CP of 4 toys
   SP/ CP $= \frac{4}{3} > 1 \ Gain$
   Gain% $= \frac{Gain}{CP} \times 100$
   Gain % $= \frac{1}{3} \times 100 = 33\frac{1}{3}\%$

5. (c) According to question,
   CP of 15 tables = SP of 20 tables
   $\frac{CP}{SP} = \frac{20}{15} > 5$ units loss

   Thus, % = 5/20 × 100 = 25%

6. (b) According to question,
   CP of 18 articles = SP of 15 articles
   $\frac{CP}{SP} = \frac{15}{18} > 3 \ unit \ profit$
   Profit % $= \frac{3}{15} \times 100$ = 20%Profit

7. (a) According to question,
   $\frac{CP}{SP} = \frac{5}{4} > 1 \ unit \ loss$
   Loss % $= \frac{1}{5}$ = 20% loss

8. (a) According to question,
   $\frac{CP}{SP} = \frac{20}{21} > 1 \ unit \ profit$
   Profit % $= \frac{1}{20} \times 100$ = 5 %

9. (d) According to question
   $\frac{SP}{CP} = \frac{8}{5} \times CP$
   $\frac{SP}{CP} = \frac{8}{5} > 3 \ gain$
   Gain % $= \frac{3}{5} \times 100$ = 6 %

10. (d) According to question,
    CP of 25 articles = SP of 20 articles
    $\frac{CP}{SP} = \frac{20}{25} \to \frac{4}{5} > 1 \ Profit$
    Profit % $= \frac{10}{40} \times 100$ = 25%

11. (d) According to question,
    50 CP = 40 SP
    $\frac{CP}{SP} = \frac{40}{50} > 10 \ Profit$
    Profit % $= \frac{10}{40} \times 100$ = 25%

12. (b) According to question,
    12 CP = 10 SP
    $\frac{CP}{SP} = \frac{10}{12} \to \frac{5}{6} > 1 \ Profit$
    Profit % $= \frac{1}{5} \times 100$ = 20%

13. (a) According to question,
    10 CP = 9 SP
    $\frac{CP}{SP} = \frac{9}{10} > 1 \ Profit$
    Profit % $= \frac{1}{9} \times 100 = 11\frac{1}{9}\%$
    Loss% $= \frac{12}{32} \times 100$ = 37.5%

14. (a) According to question
    $\frac{CP}{SP} = \frac{5}{6}$ 1 Unit Profit
    Profit% $= \frac{Profit}{CP} \times 100 = \frac{1}{5} \times 100$ = 20%

15. (d) According to question,
    CP   SP
    100   152

52% $\times \frac{1}{2}$

Actual SP

Rs. 76

152 unit's → Rs. 76

Unit → $\frac{76}{152}$ → = ½

100 units → ½ × 100 = 50

CP → Rs. 50

Thus, If SP → Rs. 75

Profit % = $\frac{25}{50} \times 100$ = 50%

16. (d) According to question,

12 CP = 8 SP

$\frac{CP}{SP} = \frac{8}{12} = \frac{2}{3} >$ 1 $profit$

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

17. (d) According to question,

8 CP = 9 SP

$\frac{CP}{SP} = \frac{9}{8} >$ 1 $loss$

Loss% = 1/9 × 100

= $\frac{100}{9}$% $loss$

18. (a) According to question,

Let the total no. of item = 100 units

The CP of 1 item = Rs. 1

Given, 16 SP = 20% of item of CP

16 SP = 20 CP

$\frac{CP}{SP} = \frac{16}{20} = \frac{4}{5} >$ 1 $profit$

Profit % = $\frac{1}{4} \times 100$ = 25%

19. (b) According to question,

10CP = 7 SP

$\frac{CP}{SP} = \frac{7}{10} >$ 3 $units$

Profit % = $\frac{3}{7} \times 100$ = $42\frac{6}{7}$%

20. (b) According to question,

2750 CP = 2500 SP

$\frac{CP}{SP} = \frac{2500}{2750} = \frac{10}{11} >$ 1 units

Profit % = 1/10 × 100 = 10% gain

21. (b) According to question,

$\frac{CP}{SP} = \frac{20}{15} = \frac{4}{3} >$ 1 $units$

Loss % = ¼ × 100 = 25%

22. (b) According to question,

10CP = 16SP

$\frac{CP}{SP} = \frac{16}{10} = \frac{8}{5} >$ 3 $units$ loss

Loss % = 3/8 × 100 = 37.5%

23. (b) According to question,

10 CP = 16SP

$\frac{CP}{SP} = \frac{18}{10} = \frac{9}{5} >$ 4 $units$ $loss$

loss% = $\frac{4}{9} \times 100$ = $44\frac{4}{9}$%

24. (d) According to question

10 SP = 13 CP

$\frac{SP}{CP} = \frac{13}{10} >$ 3 $units$ $profit$

Profit% = 3/10 × 100 = 30%

25. (c) According to Question,

20 CP = 15 SP

$\frac{CP}{SP} = \frac{15}{20} = \frac{3}{4} >$ 1 unit profit

Profit % = 1/3 × 100 = $33\frac{3}{1}$%

26. (d) According to question,

20 CP = 15 SP

$\frac{CP}{SP} = \frac{15}{20} = \frac{3}{4} >$ 1 $unit$ $profit$

27. (d) According to question,

24 CP = 18 SP

CP = 80% of SP

CP = $\frac{80}{100} SP$

$\frac{CP}{SP} = \frac{80}{100} = \frac{4}{5} >$ 1 $unit$

Profit % = ¼ × 100 = 25%

28. (b) According to question,

15 CP = 12 SP

$\frac{CP}{SP} = \frac{12}{15} = \frac{4}{5} >$ 1 $unit$ $profit$

Profit % = ¼ × 100 = 25%

29. (d) According to question,

10 CP = 8 SP

$\frac{CP}{SP} = \frac{8}{10} = \frac{4}{5} >$ 1 $unit$ $profit$

Profit % = ¼ × 100 = 25%

30. (c) According to question,

Let CP of 1'lemon is = Rs. 25%

31. (c) According to question,

12 SP = 15 CP

$\frac{SP}{CP} = \frac{15}{12} = \frac{5}{4} >$ 1 $unit$ profit

Profit % = ¼ × 100 = 25%

32. According to question

b = $\frac{200}{100} \times a$

$\frac{b}{a} = \frac{2}{1}$

$\frac{CP}{SP} = \frac{a}{b} = \frac{1}{2} >$ 1 $unit$ $profit$

Profit % = $\frac{1}{1} \times 100$ = 100%

33. (c) According to question,

100 SP = 320 CP

$\dfrac{CP}{SP} = \dfrac{400}{320} = \dfrac{5}{4} \rangle$ 1 units loss

Loss% $= \dfrac{1}{5} \times 100 = 20\%$

34. (c) According to question,

400 CP = 320 SP

$\dfrac{SP}{CP} = \dfrac{400}{320} = \dfrac{5}{4} \rangle$ 1 unit profit

Profit % $= \dfrac{1}{4} \times 100 = 25\%$

35. (d) According to question,

18 CP = 16 SP

$\dfrac{CP}{SP} = \dfrac{16}{18} = \dfrac{8}{9} \rangle$ 1 unit profit

Profit % $= \dfrac{1}{8} \times 100 = 12.5\%$

36. (a) According to question,

CP of toys = Rs. 5

SP of toys = Rs. 4.5

Loss = CP - SP = 5 - 4.5 = 0.5

Loss% $= \dfrac{0.5}{5} \times 100 = 10\%$

37. (c) According to question,

$\dfrac{CP \ of \ Refrigerator}{CP \ of \ televison} = \dfrac{5}{3} \rangle$ 2 units

38. (d) CP of a book ranges between = 150 to 300 Rs.

SP of a book ranges between = 250 to 350 Rs.

For maximum profit CP should minimum & SP should be maximum

So, CP = 150

SP = 350

Profit = SP - CP

= 350 - 150

= Rs. 200/book

Total Profit on 15 books = 200 × 15

= Rs. 3000

39. (c) According to the question,

= → 100 CP = 60 SP

$\dfrac{CP}{SP} = \dfrac{60}{100} \rangle$ 40 units profits

= Profit% = 40/60 × 100 $= 66\dfrac{2}{3}\%$

40. (b) According to the question,

$\dfrac{CP}{SP} = \dfrac{10}{11} \rangle$ 1 units Profit

% Profit $= \dfrac{1}{10} \times 100$

= 10%

41. (c) CP of 25 chairs = SP of 30 chairs

25 CP = 30 SP

$\dfrac{CP}{SP} = \dfrac{30}{25}$

$\dfrac{CP}{SP} = \dfrac{6}{5}$ } 1 unit loss

Loss% $= 1/6 \times 100 = 16\dfrac{2}{3}\%$

42. (b) Basic Method

According to question,

First Machine gain = 10%

Thus, SP = 110% of CP

$396 = \dfrac{110}{100} \times CP$

COP = (396 × 100)/110

= Rs. 360

for second Machine : - Loss = 10%

Thus, SP = 90% of CP

$396/ = \dfrac{90}{100} \times CP$

CP $= 100 \times \dfrac{396}{90} = jRs.\ 440$

Total CP = Rs. (360 + 440)

= 792

Loss = Rs. 8

Loss% $= \dfrac{8}{800} \times 100 = 1\% \ Loss$

Alternate:

	Machine (1)	Machine (2)
CP	10 ×9 = 90	10 ×11 = 110
	10% profit +	10% Loss
SP	11 ×9 = 99	9 ×11 = 99
	Same SP	

Total CP = 90 + 110 = 220

Total SP = 99 + 99 = 198

Loss = 200 − 198 = 2

Loss% $= \dfrac{2}{200} \times 100 = 1\%$

43. (c) According to question,

	House	Shop
CP	10	10
	0% Loss	20% gain
SP	8	12

for same SP   Total

CP   10 ×12 = 120   10 ×8 = 80   200

Loss = 8 units

SP   8 ×12 = 96   12 ×8 = 96   192

ATQ

192 units = 2 lakhs

1 unit $= \dfrac{2}{192} \times 8 = \dfrac{1}{12} \ lakh$

44. (d) Quicker Approach.

Always loss in such type of questions.

Loss % $= \dfrac{Loss\% \times Profit\%}{100}$

$= \dfrac{20 \times 20}{100}$ = 4 % loss

45. (a) Quicker Approach:

Always loss in such type of questions

Loss% $= \dfrac{Loss\% \times Profit\%}{100} = \dfrac{10 \times 10}{100}$ = 1% loss

46. (c) According to question,

Pipes – 1	Pipes - 2	Total	
10 ×8 = 80	10 ×12 = 120	200	Loss

units

12 ×8 = 96   8 ×12 = 96   192

make SP same

192 units → Rs. 24

1 unit → $\dfrac{24}{192}$

8 units → 24/192 × 8 = Rs. 1 loss

47. (b) In such type of question always loss =

$(P\% \times L\%) = (10 \times 10)/100$ = 1%

Alternate:

	Tape – 1	Tape - 2	Total
CP	10 ×9 = 90	10 ×11 = 110	200
	+ 10% Profit	- 10% Loss	

2 units loss

SP   11 ×9 = 96   9 ×11 = 99   198

to make SP same

Loss% $= \dfrac{2}{200} \times 100$ = 1%

48. (b) Quicker approach

$= \dfrac{P\% \times L\%}{100} = (10 \times 10)/100$ = 1% loss

Alternate:

	Tape – 1	Tape - 2	Total
CP	10 ×9 = 90	10 ×11 = 110	200
	+ 10% Profit	- 10% Loss	

2 units loss

SP   11 ×9 = 96   9 ×11 = 99   198

to make SP same

Loss% $= \dfrac{2}{200} \times 100$ = 1%

49. (d) According to question,

	Article - 1	Article – 2	Total
CP	5 ×4 = 20	5 ×6 = 30	50
	+ 20% Profit	- 20% loss	

2 unit loss

SP   6 ×4 = 24   4 ×5 = 24   48

to make SP same

Loss% $= \dfrac{2}{50} \times 100$ = 4% loss

Quicker approach $= \dfrac{P\% \times L\%}{100} = (20 \times 20)/100$

= 4 % loss

50. (b) According to question,

	TV	Refrigerator	Total
CP	5 × 6 = 30	5 × 4 = 20	50
	- 20% loss	+ 20% profit	

unit loss

SP   4 × 5 = 24   6 × 4 = 24   48

Actual

(SP)

to make SP same

24000

48 unit's → Rs. 24000

1 unit → 24000/48 = 500

50 unit → 500 × 50 = Rs. 25000

CP → Rs. 25000

SP → Rs. 24000

Loss = CP - SP = Rs. 1000

51. (d) According to question,

	Bicycles - 1	Bicycles – 2	Total
CP	20 × 19 = 380	20 × 21 = 420	

2 unit loss

SP   21 ×19 = 399   19 ×21 = 399

to make SP of both bicycle same

Loss% $= \dfrac{2}{800} \times 100$ = 0.25% loss

52. (d) According to question,

	Watch - 1	Watch - 2	Total
CP	5 × 4 = 20	5 × 6 = 50	50

unit loss

Loss% $= \dfrac{2}{200} \times 100$ = 1%

SP   4 × 6 = 24   4 × 6 = 24   48

Loss% $= \frac{2}{50} \times 100 = 4\% \, loss$

53. (d) According to question,

	TV - 1	TV - 2	Total
CP	10 × 9 = 90	10 × 11 = 110	200

2 unit loss

SP	11 × 9 = 99	9 × 11 = 99	198

to make SP same of both TV

loss% $= \frac{2}{200} \times 100 = 1\% \, loss$

54. (c) According to questions,

	Car	Jeep	Total
CP	5 ×6 = 30	5 ×4 = 20	50
	- 20% loss	+ 20% profit	2 unit loss
SP	4 ×6 = 24	6 ×4 = 24	48

to make SP same

48 units → 240000 × 2

1 unit → $\frac{240000}{48} \times 2 = 10000$

2 units → 10000 × 2 = Rs. 20000

55. (c)

	Chair - 1	Chair 2	Total
CP	5 ×4 = 20	5 ×6 = 30	50
	20 % profit	- 20% loss	
2 units			
SP	6 × 4 = 24	4 × 6 = 24	48

to make SP same of both chair

Loss% $= \frac{2}{50} \times 100 = 4\% \, loss$

56. (c) According to question,

	Chair – 1	Chair – 2	Total
CP →	4 ×3 = 12	+ 4 ×5 = 20	32
	25% profit	25% loss	2
units loss			
SP →	5 ×3 = 15	+ 3 ×5 = 15	30

to make SP same

30 units = 120 × 2 = 240

1 unit = 240 / 30

2 units $= \frac{240}{30} \times 2 = 16$ Rs

57. (d) Quicker approach

→ $\frac{P\% \times L\%}{100} = (20 \times 20)/100 = 4\%$ loss

Note: In this type of question always loss.

58. (d) According to the question,

	Article – 1	Article – 2	Total
CP	4 × 3 = 12	4 × 5 = 20	32
	25% profit	25% loss	2

units loss

SP	5× 3 = 15	3 × 5 = 15	30

Loss% $= \frac{2}{32} \times 100 = \frac{25}{1}\%$

59. (a) Shortcut method

$= \frac{Profit \times Loss}{100} \rightarrow \frac{10 \times (-10)}{100} = -1\%$ (Loss)

60. (d) According to question,

Loss= 10%

→ SP = 100 − 10 = 90%

90% → 240 (given)

1% → $\frac{240}{90}$

To gain 20%

SP = 100 + 20 = 120%

120% $= \frac{240}{90} \times 120 = Rs.$ 320

Alternate Method :

10% $= \frac{1 \rightarrow Loss}{10 \rightarrow CP}$

SP = 10 − 1 = 9

9 = 240 (given)

1 unit $= \frac{240}{9}$

to gain 20% $= \frac{2 \rightarrow Gain}{10 \rightarrow CP}$

SP = 10 + 2 = 12

Thus, 12 units $= \frac{240}{9} \times 12 = Rs.$ 320

61. (a) ATQ Loss 20%

SP = 100% - 20% = 80%

80% = 480

1 = 480/80

(Profit 20%) = 480/80 × 120 = 720

62. (c) According to question,

CP
100

5% loss   5% gain

95   105

difference
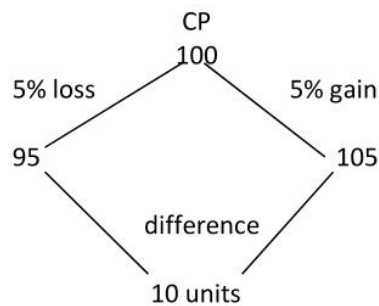
10 units

10 units = Rs. 5

1 units = Rs. $\frac{5}{10}$

= CP = 100 units $= \frac{5}{10} \times 100 = Rs.$ 50

63. (d) According to question,

10% loss

CP	Loss	SP

10   1   9

 ×8   ×8

80   72

Profit % = 5%

New SP = $80 \times \frac{105}{100}$ = 84

64. (c) According to question,

for 9% loss

CP	loss	SP
100	9	91

for 30% Profit

CP	Profit	SP
105	100	30	100

→ 1 unit → $\frac{105}{91}$

→ 130 unit → $\frac{105}{91} \times 30 = Rs.\ 150$

65. (a) According to question,

CP

100

10% loss   12.5% gain

90   112.5

difference
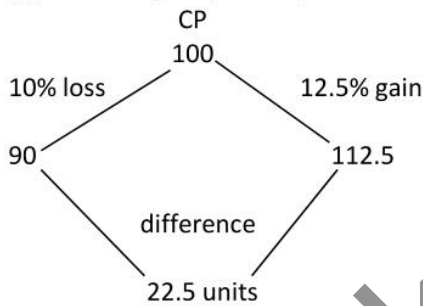
22.5 units

22.5 units = 9

1 unit = $9 \times \frac{2}{45}$

100 units 2/5 × 100

= Rs. 40

66. (d) According to question,

Difference in Price = 400 − 350 = Rs. 50

as   5% = Rs. 50

1 % = Rs. 10

C.P. = 100% = 10 × 100 = Rs. 1000

67. (b) According to question,

CP	Loss	SP	
100	5%	95	×10 → 950 (given)

↓ × 10

1000

Thus, CP = Rs. 1000

SP = Rs. 1040

Profit = Rs. 40

Profit% = $\frac{40}{100} \times 100 = 4\%$

68. (a) According to question,

$12\frac{1}{2}\%$ loss means = 1/8

or $\frac{100 \to Loss}{800 \to CP}$

Thus,

800

12.5%   6% Profit

700   848
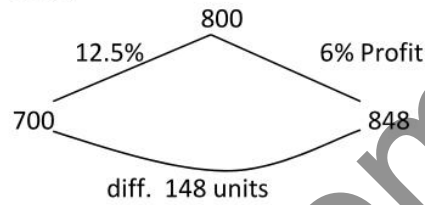
diff. 148 units

148 units → 51.80

1 unit → $\frac{51.8}{148}$

800 units → $\frac{51.8}{148} \times 8000$ = 280

CP = Rs. 280

69. (C) According to question,

100   CP   →95

11   114

4 unit diff.   New SP
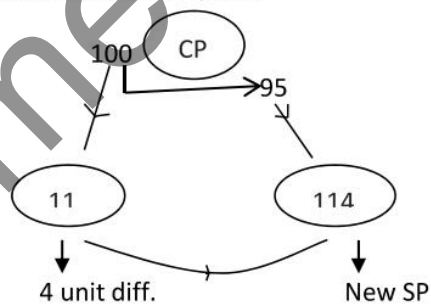
4 unit difference = Rs. 80 (Given)

1 unit → 20

100 unit → 20 × 100 = Rs. 2000

CP of table = Rs. 2000

70. (c) According to question,

100 (CP)

20% loss   5 % profit

80 (SP)   150 (SP)
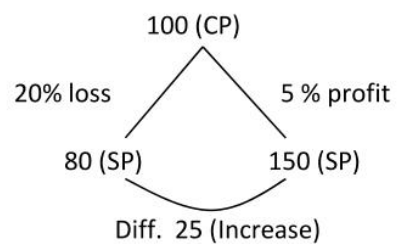
Diff. 25 (Increase)

25 units → 100

1 unit → 4

100 units → 4 × 100 = Rs. 400

CP = Rs. 400

71. (b) According to question,

100 (CP)

20% loss   25 % profit

120 (SP)   125 (SP)
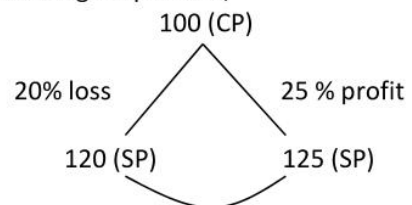
Diff. 5 (Increase)

5 units → 35

1 unit → 7

100 units → 7 × 100 = Rs. 700

CP = Rs. 700

72. (b) According to question,

100 (CP) $\xrightarrow{20\% \text{ gain}}$ 120 (SP)

If he sell double the price means SP = 120 × 2 = 240

Profit% = $\frac{140}{100} \times 100$ = 140%

73. (c) According to question

100(CP) $\xrightarrow{10\% \text{ loss}}$ 90 (SP) $\xrightarrow{\times 500}$ 45000 (Given)

90 units → 45000

1 unit → 500

100 unit = 500 × 100 = 50000

CP = Rs. 50000

To gain 15% = 15/100 × 50000 = Rs. 7500

Thus, SP = 50000 + 7500 = Rs. 57500

74. (a) According to question,

100 (CP) $\xrightarrow{10\% \text{ profit}}$ 110 (SP) $\xrightarrow{\times 9}$ 990 (given)

110 units → 990,

1 unit → 9

100 units → 9 × 100 = 900

CP = Rs. 900

Now, SP = Rs. 890

Thus, CP - SP = 900 - 800 = Rs. 10 loss

75. (b) According to question,

100 (CP)

20% loss   10% Profit

80 (SP)   110(SP)

Diff. 30
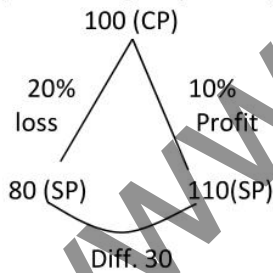
30 units → 12

1 unit → $\frac{12}{30}$

100 units → $\frac{12}{30} \times 100$ = Rs. 40

CP = Rs. 40

76. (c) According to question,

100 (CP) $\xrightarrow{11\% \text{ loss}}$ 89 (SP) $\xrightarrow{\times 2}$ 178(Given)

89 units → 178

1 unit → 2

100 units → 2 × 100 = 200

CP → Rs. 200

to earn 11% profit SP = 200 + 11/100× 200

= 200 + 22 = Rs. 222

77. (c) Let the CP = 8 units

According to question,

8 (CP)

12.5% Loss   12.5% Profit

7   9

diff. 2
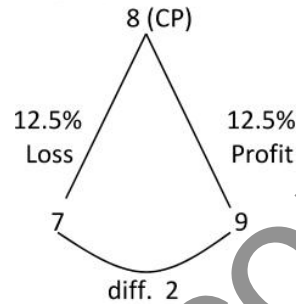
2 units → 13

1 unit → $\frac{13}{2}$

8 units → $\frac{13}{2} \times 8$ = Rs. 52

78. (b) Let CP of the article = Rs. x

According to question,

$\frac{x-50}{x} \times 100 = \frac{70-x}{x} \times 100$

2x = 120

x = 60

Thus, CP = Rs. 60

SP = 50

Loss % $\frac{10}{60} \times 100 = \frac{100}{6} = 16\frac{2}{3}\%$

Alternate

SP₁   SP₂

SP_1 SP_2

50   70

Ratio of profit or loss   6
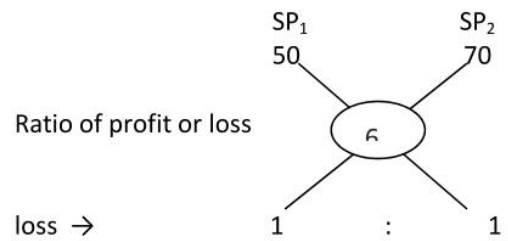
loss →   1   :   1

If CP = Rs. 60

SP = Rs. 50

Loss% = $\frac{10}{60} \times 100 = 16\frac{2}{3}\%$

79. Let CP of article is 100 units

According to question,

100 (CP)

5% gain   5 % loss

105 (CP)   95 (SP)

Diff 10
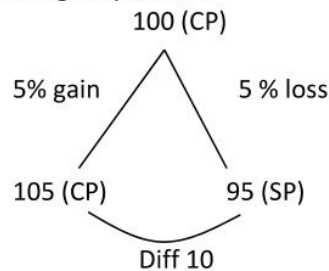
10 units → 5

1 unit → $\frac{5}{10}$

100 units → $\frac{5}{10} \times 100 = 50$

80. (a) Let CP of the article = 100 units

According to question,

100 (CP)

10% Loss ← → 10% Profit

90   110

Diff 20 units
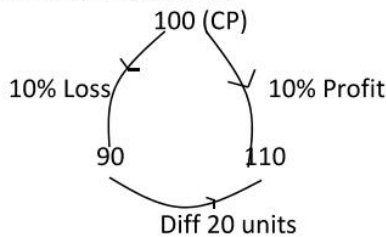
20 units → Rs. 10

1 unit → $\frac{1}{2}$

100 units → $\frac{1}{2} \times 100 = 50$

Thus, CP of the article is = Rs. 50

81. (a) According to question,

CP   25% loss   SP

4   →   3   ×240   720

× 240   (Given SP)

960 (CP)

Now to gain 25%

CP   SP

4   5

| × 240 | × 240

960   1200

↓   ↓

CP   SP
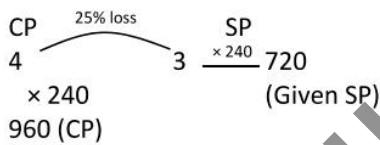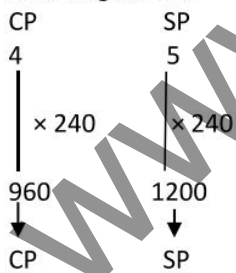
Thus, SP = Rs. 1200

82. (c) Let CP of the book = 100 units

100 (CP)

4% loss ← → 10% Profit

96 (CP)₂   110(SP)₁

18 ¾%   4 unit difference

Profit   14 (SP)₂

4 units = 6

1 = $\frac{6}{4}$
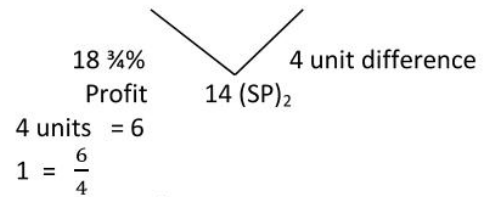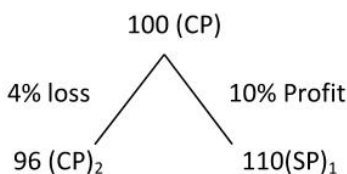
100 units = $\frac{6}{4} \times 100 = 150$

$[18\frac{3}{4}\% = \frac{3}{16} = 96 + \frac{3}{16} \times 96 = 114]$

83. (d) Let CP of the Typewriter = 100 unit

According to question,

100 (CP)

5% loss ← → 5% Profit

95 (SP)₂   105(SP)₁

10 unit difference
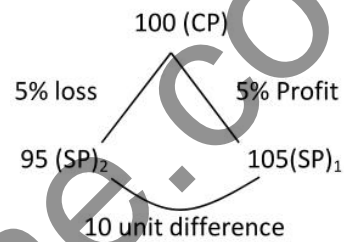
CP of the Typewriter = Rs. 800

84. (b) Let CP of the article = 40 units

According to question,

40 (CP)

7.5% loss ← → 7.5% profit

37   3

diff. 6 units
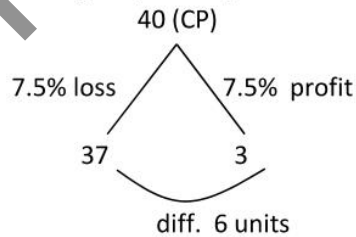
6 units → Rs. 3

1 unit → $\frac{3}{6} \times 1 = \frac{1}{2}$

40 units → ½ × 40 = 20

CP → ½ × 40 = 20

CP = Rs. 20

85. (d) Let CP of the article = Rs. 100

According to question,

40 (CP)

7.5% loss ← → 7.5% profit

37   3

diff. 6 units

100(CP)

5 % loss ← → × 7

95 (SP)   700 (CP)

↓ 12 % profit
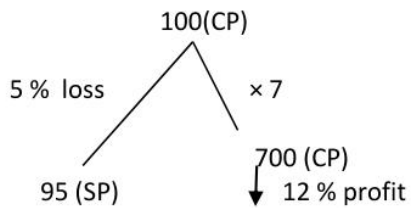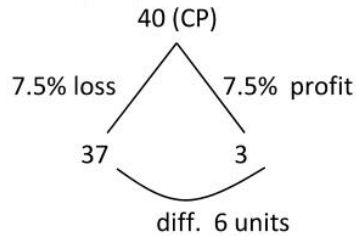
$$(\times 7 \qquad \textbf{[784]} \quad \text{New SP}$$
665 (SP Given)

86. Let CP of the commodity = 600 unit
According to question,

600 (CP)
10% less → 540

10% profit $16\frac{2}{3}\% \ gain$

600   630

30 units less
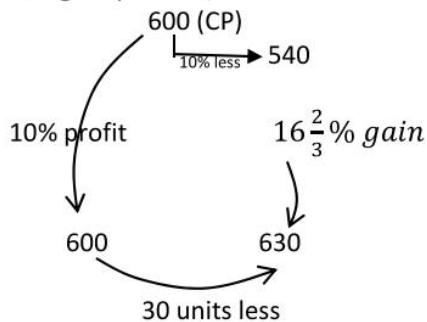
30 units → Rs. 20

1 unit → Rs. $\frac{2}{30}$

600 units → $\frac{2}{30} \times 600 = 40$

87. (d) Let CP of the article is = 100 units
According to question,

100 (CP)

4 % less   5 % profit

80 (SP)$_1$ 105 (SP)$_2$

25 difference
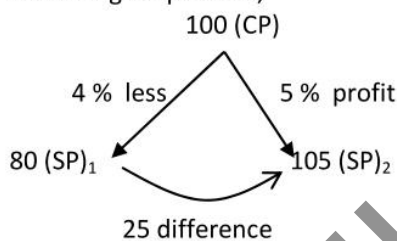
25 units → Rs. 50

1 unit → $\frac{50}{25}$

100 units → $\frac{50}{25} \times 100 = 200$

CP = Rs. 200

88. (c) According to question,

A $\xrightarrow{10\% \ profit}$ B   A
100   110   10 units Profit
              1 unit profit

99   10% loss
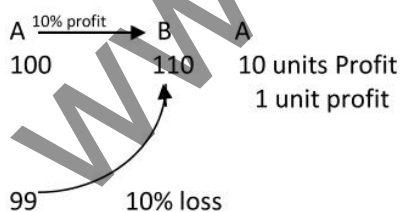
A Total profit → 11 units

A total profit % → $\frac{11}{100} \times 100 = 11\%$

89. (c) Let SP = Rs. x
According to question,

$$\frac{CP - x}{CP} \times 100 = \frac{2x - CP}{CP} \times 100$$

CP - x = 2x − CP

$x = \frac{2}{3}$ CP

SP $= \frac{2}{3}$ CP

$\frac{SP}{CP} = \frac{2}{3} > 1 \ units \ loss$

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

Alternate:

CP ⌒ SP
100   diff. 100   200

15
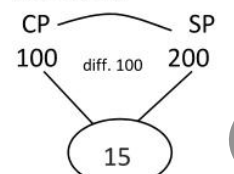
50   :   50
1   1
(Profit)   (Loss)

CP → 150

Loss → 50

Loss% → $\frac{50}{150} \times 100 = 33\frac{1}{3}$ %

90. (a) Let CP of the article = Rs. 100
According to question,

100 (CP) $\xrightarrow{10\% \ profit}$ 110 (SP)

Now CP becomes = 110

110 (CP) $\xrightarrow{10\% \ loss}$ 99 (SP)

Thus, Loss = CP − SP

= 100 − 99 = 1

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

Alternative:

According to question,

$= a - b - \frac{ab}{100}$

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

= - 1% [(-) sign shows loss]

91. (a) Let the CP of the basket = 10 unit
According to question

1 unit → 1.5

10 unit → 1.5×10

CP → Rs. 15

S.P = $15 \times \frac{140}{100} = 21$

92. (c) Let the CP of the cooker = 100 unit
According to question,

100 (CP)

20% loss   20% gain

116   120
4 units diff.
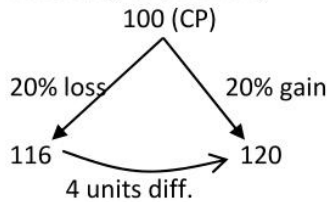
40 units → Rs. 60

1 unit → $\frac{60}{40}$

100 units → $\frac{60}{40} \times 100$ = Rs. 150

CP = Rs. 150

93. (d) Let the CP of the article = 100 unit
According the question,

100(CP)

20% loss   20% gain

80   120 (SP Given)
40 unit difference
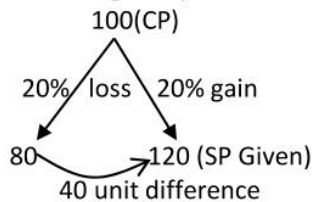
40 units → Rs. 60

1 unit → $\frac{60}{40}$

100 units → $\frac{60}{40} \times 100$ = Rs. 150

CP = Rs. 150

94. (d) Let the CP of the article = 100 unit
According the question

100 (CP)   1000 (Actual CP)
     ×10   30% Profit

30% loss   **[1300]**

70   ×10   700 (SP Given)
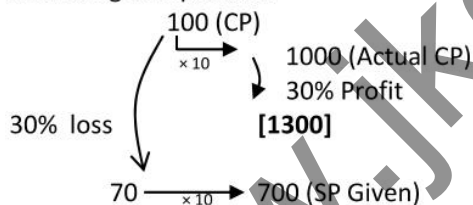
70 units = 700

1 unit → $\frac{700}{70} \times 100$ = 10

100 units = 10 × 100 = 1000

CP = Rs. 1000
to gain 30%

SP = $1000 + \frac{30}{100} \times 1000$

= 1000 + 300

= 1300 Ans.

95. (d) According to question,
CP of the bed sheet = Rs. 450

Profit = 10% and SP = $\frac{1 \rightarrow Profit}{10 \rightarrow SP}$

Thus, CP = SP – Profit

CP = 10 – 1 = 9 units

9 units → 450

1 unit $\frac{450}{9}$ = 50

10 units → 50 × 10 = 500

Thus, SP = Rs. 500

96. (c) Let the CP of the Article is = Rs. 100
According to question,

100(CP) $\xrightarrow[\text{200\% Profit}]{}$ 300 (SP)

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

97. (c) Let CP of the Article = Rs. 100
According to question,

100(CP) $\xrightarrow[\text{5\% Profit}]{}$ 105 (SP)

Ratio of $\frac{SP}{CP} = \frac{105}{100} = \frac{21}{20}$

98. (b) Let CP of bicycle is = 100 units
According to question,

100 (CP)

8% gain   14% gain

108   114
6 units
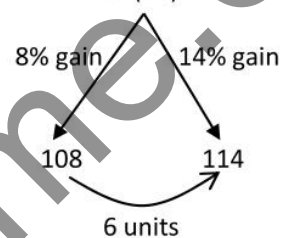
6 units = Rs. 75

1 unit = 75/6

100 units = 75/6 × 100 = Rs. 1250

Thus, CP of bicycle = $\frac{75}{6} \times 100$ = 1250

99. (b) S.P. of cycle = Rs. 2850
Profit % = 14%

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

CP = $\frac{2850}{114} \times 100$

New Profit = 8%

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

= $\frac{2850 \times 100}{114} \times \frac{108}{100}$ = Rs. 2700

100. (a) Let CP of the article is = 100 units
According to question,

100 (CP) $\xrightarrow[\text{4\% loss}]{}$ 9(SP)

96 units → Rs. 960

1 unit → $\frac{960}{96}$

100 units → $\frac{960}{96} \times 100$ = 1000

101. (a) According to question,

CP   SP

Mangoes 5   6

1 unit difference

7
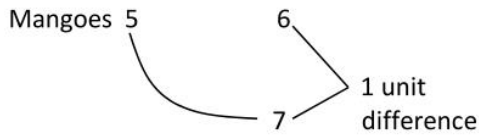
1 Unit = 1 Rs.

Thus, SP of the mangoes in first case = Rs. 6

102. (b) Let CP of Hand Cart = 100

According to question,

100 (CP) 25% loss 75 (SP) $\times \frac{48}{5}$

720 (Given)

75 units = 720

1 unit $= \frac{720}{75}$ $\rightarrow$ $\frac{48}{5}$

100 units $\rightarrow \frac{48}{5} \times 100 = 960$

CP = Rs. 960

to gain% SP is = CP + Profit % × CP

$= 960 + \frac{25}{100} \times 60$

$= 960 + 240 = $ Rs. 1200

103. (b) According to question,

Cheats while buying = 10%

Cheats while selling = 10%

Thus, $\left(a + b + \frac{ab}{100}\right)\%$

$= 10 + 10 + \frac{10 \times 10}{100} = 20 + 1$

Increase in profit % = 21%

104. (a) Let C.P. of the book = 100

According to question,

100 (CP)

20% loss   30% gain

80 (SP$_1$)   130 (SP$_2$)

diff. 50 units
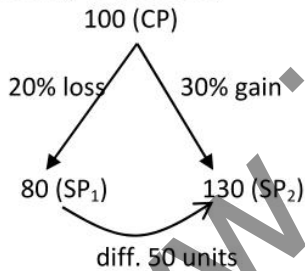
50 units $\rightarrow$ Rs. 108

1 unit $\rightarrow \frac{108}{50}$

100 units $= \frac{108}{50} \times 100 d$ $= Rs. 216$

Thus, CP = Rs. 216

105. (b) Let CP of the book = 100

According to question,

100 (SP)

10% gain   10% gain

90 (SP$_1$)   110(SP$_2$)

diff. 20 units
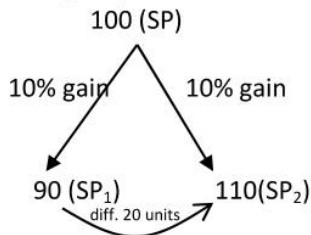
50 units = Rs. 108

1 unit = Rs. $\frac{108}{20}$

100 units $= \frac{108}{20} \times 100 = Rs. 540$

CP = Rs. 540

106. (b) According to question,

     Radio – 1   Radio – 2

CP   5 × 14 = 70   +   15 × 6 = 90   = 160

     20% profit $6\frac{2}{3}\% \; loss$

SP   6 × 14 = 84   +   14 ×6 = 84   = 168

to make SP same
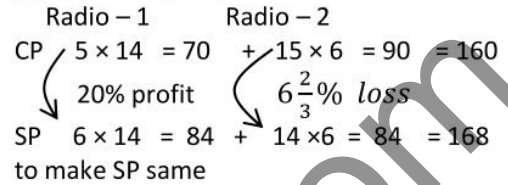
160 units = 1920

1 unit $= \frac{1920}{160} = 12$

70 units = 12 × 70 = 840

90 units = 12 × 90 = 1080

CP of both Radio = Rs. 840, Rs. 1080

107. Let CP of Article = 100

According to question,

100

19% gain   17% gain

81 (SP$_1$)   117(SP$_2$)
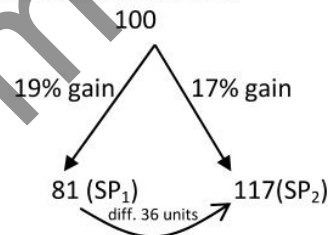
diff. 36 units

36 units = 162

1 unit $= \frac{162}{36}$

100 units $= \frac{162}{36} \times 100$ = Rs. 450

108. (b) Let CP of the article = 400

According to question,

400 (CP)

5 % gain $2\frac{1}{2}\%$ loss

420   390
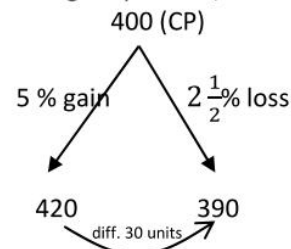
diff. 30 units

30 units = 12

1 unit $= \frac{12}{30}$

400 units $= \frac{12}{30} \times 400 = 160$

109. (c) Let the CP of the article = Rs. 100

According to question,

100 (CP) $\xrightarrow{\times 10 \text{ less}}$ 90 (New CP)

     30% Profit

30% loss
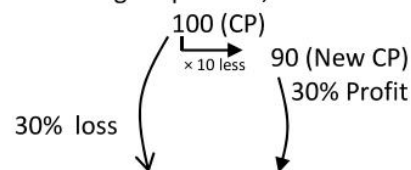
112 ⟶ 117 (SP Given)

Diff. 5 units

5 units = 5.75

1 units = 5.75/5 × 100

100 units = 5.75/5 × 100 = 115

Thus, CP of the article = Rs. 115

to gain 20%

Thus, SP of the article = $115 + \frac{20}{100} \times 115$

SP = Rs. 138 Ans.

110. (a) Let CP of the table is = 100 unit

According to question,

100 (CP) 5 % loss 95 (SP)

95 units = 1140

1 unit $= \frac{1140}{95} = 12$

100 units = 12 × 100 = 1200

SP of the table to gain 5% profit $= 1200 + \frac{5}{100} \times$

1200

= 1200 + 60

= Rs. 1260

111. (b) Let CP of the radio = 100 unit

According to question,

100 (CP)

2.5 % loss $7\frac{1}{2}$% gain

97.5   107.5

10 unit more
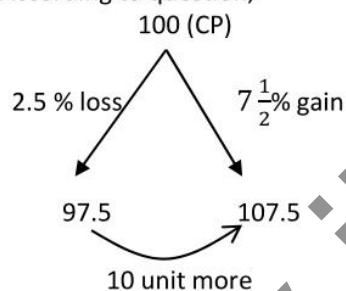
10 units = 100

1 unit $= \frac{100}{10} = 10$

100 units = 100 × 10 = 1000

CP of the radio = Rs. 1000

to gain 12.5% SP of the radio

$= 1000 + \frac{12.5}{100} \times 100$

Rs. 1125

112. (d) Let CP of the selling fan = 100 unit According to question,

According to question,

100 (CP) $\xrightarrow{\text{10 % loss}}$ 90 (SP)

90 units = 600

1 unit $= \frac{600}{90} = \frac{20}{3}$

100 units $= \frac{20}{3} \times 100 = 2000/3$

to gain 20% SP of fan

$= \frac{200}{3} + \frac{20}{100} \times \frac{2000}{3}$

= Rs. 800

113. (c) Let the CP of the article = 100

According to question,

100 (CP) $\xrightarrow{\text{15% loss}}$ 85 (SP)

85 units = 170

1 unit = 170/85 = 2

100 units = 2 × 100 = 200

CP of the article = Rs. 200

In order to gain 20% SP of the article = 200 × 120/100 = 240

New Selling Price = Rs. 240

114. (c) Let CP of the article = 100 unit

According to question,

100 (CP)

15 % gain   20% gain

115 (SP₁)   120 (SP₂)

10 unit more
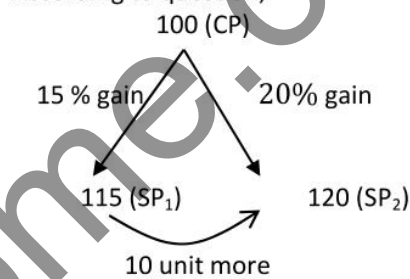
5 units = 27

1 unit $= \frac{27}{5}$

100 units $= \frac{27}{5} \times 100 = 540$

CP of the article = Rs. 540 Ans.

115. (c) Let CP of the article = 100

According to question,

100 (CP₁)

15 % profit   10% loss

115 (SP₁)   112.5 (SP₂)
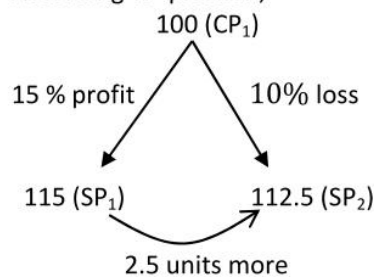
2.5 units more

2.5 units = 4

1 unit = 4/2.5

100 units = 4/2.5 × 100 = Rs. 160

CP of the article = Rs. 160

116. (a) Let CP of the article = 100

According to the question

100 (CP)

15 % loss   5% gain

90 (SP₁)   105 (SP₂)
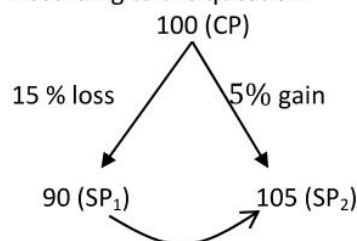
15 units more

15 units = 90

1 unit = 90/15

100 units = 90/15 × 100 = 600

Thus, CP of the article = Rs. 600

90 units = $\frac{90}{15} \times 90 = 540$

Thus, Original SP = Rs. 540

117. (b) Let CP of the article = 100

According to question,

$$100 \text{ (CP)}$$

20 % loss   5% gain

80 (SP_1)   105 (SP_2)

25 units more
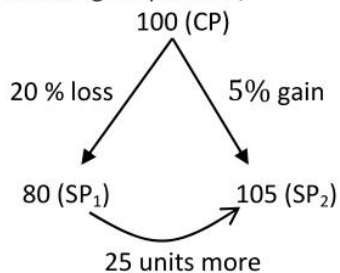
25 units = 200

1 unit = $\frac{200}{25}$

100 units = $\frac{200}{25} \times 100 = 800$

CP of the article = Rs. 800

118. Let CP of the article = 100

According to question,

$$100 \text{ (CP)}$$

5 % loss   10 % less

                90 (CP_1)

                30% Profit

90 (SP_1)   117 (SP_2)

22 units more
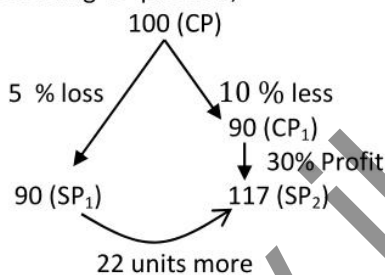
22 unit = 33

1 unit = $\frac{3}{2}$

100 units = $\frac{3}{2} \times 100 = 150$

Thus, CP = 150

119. (a) Let CP of the Article = 100 units

$$100 \text{ (CP)}$$

16 % gain   20 % gain

116 (SP_1)   120 (SP_2)

4 units more
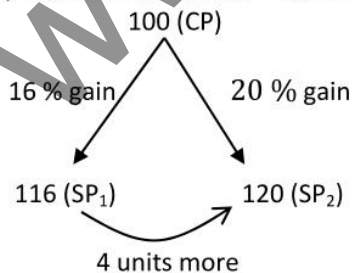
4 units = 200

1 unit = $\frac{200}{4}$

100 units = $\frac{200}{4} \times 100 = 5000$

CP = Rs. 5000

120. (c) Let CP of the article = Rs. 100

According to question,

$$100 \text{ (CP)}$$

15%   18%

gain   profit

115 (SP_1)   118 (SP_2)

3 units increase
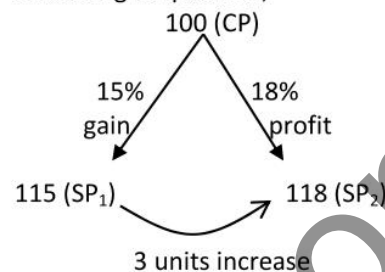
3 units = 18

1 unit = $\frac{18}{3}$

100 units = 18/3 × 100 = 600

Thus, CP of the article = Rs. 600

121. (a) Let CP of the article = 100

According to question,

$$100 \text{ (CP)}$$

10%   5%

Loss   profit

90 (SP_1)   105 (SP_2)
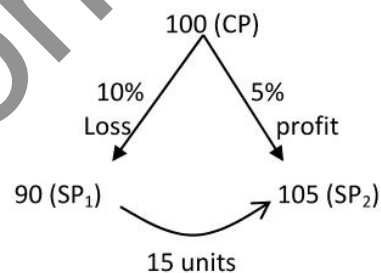
15 units

15 units = 45

1 unit = $\frac{45}{15}$

100 units = $\frac{45}{15} \times 100 = 300$

CP of the article = Rs. 300

122. (b) Let CP of the article = 100

According to question

$$100 \text{ (CP)}$$

      17%

loss   profit

81 (SP_1)   117 (SP_2)

36 units increase
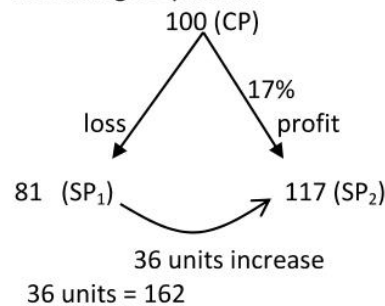
36 units = 162

1 unit $= \dfrac{162}{36}$

100 units $= \dfrac{162}{36} \times 100 = 450$

CP of the article = 450

123. (c) CP of the article = 100

According to question,

100 (CP)

20% gain → 80 (SP$_1$)

5% profit → 105 (SP$_2$)

25 units increase
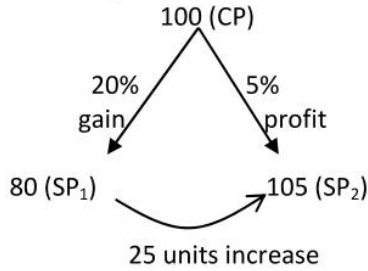
25 units = 100

1 unit $= \dfrac{100}{25}$

100 units $= \dfrac{100}{25} \times 100 = 400$

CP = Rs. 400 Ans.

124. (a) 10%

CP$_1$ ———→ SP$_1$
Rs. 100 Rs. 100

25%

CP$_2$ ——— SP$_2$
Rs. 90 Rs. 22.5 Rs. 112.5
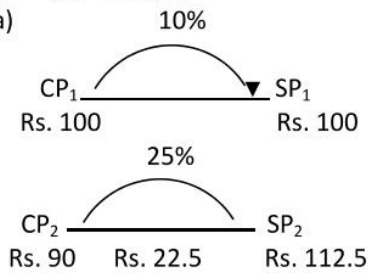
Thus, 2.5 units = 60

1 unit = 60/2.5 = 24

Therefore, C.P. of bicycle =

100 units = 100 × 24 = Rs. 2400

125. (a) Let the C.P. of the ratio

According to the Question

100

20% gain → 120

5% profit → 130

10 diff.
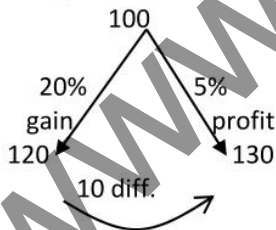
10 unit = 60

1 unit = 6

100 units → 6 × 100 = 600

Thus, Cost price of the radio = Rs. 600

126. (b) Let CP = 100

100   + 5%

− 5% ↘ 105
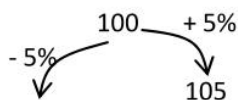
95 ↗ 0.5 less

10% → 104.5 × 4

(actual price less) Rs. 2

C.P. of the article = 100 × 4 = Rs. 400

127. (a)

100

10% loss → 90

20% profit → 120

90 × 0.6 → Rs. 54

120 × 0.6 → Rs. **[72]**
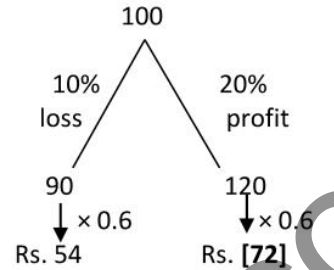
128. (b) Let CP of the watch = 100

According to the question,

100 (CP)

10% less → 90 (New CP)

20% → 120 (SP$_1$)

90 → 20% profit → 108 (SP$_2$)

diff. = 12 units

129. (b) Let CP = 100

100

12% Profit → P = 112

4% Loss → Q = 96

$\dfrac{P}{Q} = \dfrac{96}{112} = \dfrac{6}{7}$
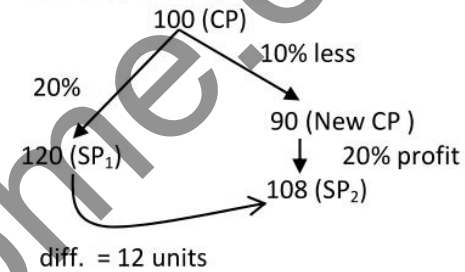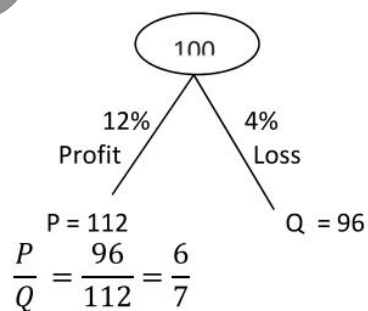
130. (b) Thus, Profit 25% = ¼

Let CP = 4, Profit = 1

SP = 4 + 1 = 5

If selling price is doubled

New SP

= 5 × 2 = 10

→ CP = 4, SP = 10

→ Profit = 10 − 4 = 6 units

→ Profit % will be = 6/4 × 100

= 150%

131. (d) CP = Rs. 1500

Profit after selling = 25% of 1500 = Rs. 375

Net Profit = Rs. 375 − 75 = 300

Net Profit % $= \dfrac{300}{1500} \times 100 = 20\%$

132. (d) (at 25% loss) SP = 960

CP $= 720 \times \dfrac{100}{75} = 960$

(at 25% gain) SP = 960 × 125/100

= Rs. 1200

133. (a) For gaining 20% it should be sell for

= 450/ 80% × 120% = Rs. 675

134. (b) 20% loss   5% profit

Increase by 25%

25% = 200

1% = 200/25

CP = 100% = $\frac{200}{25} \times 100$

= Rs. 800

135. (b) S.P. of goods = Rs. 31

C.P. of goods = $31 \times \frac{100}{93}$

= Rs. = $\frac{100}{3}$

Profit % = $\frac{13 - \frac{100}{3}}{\frac{100}{3}} \times 100$

= $\frac{\frac{5}{3}}{\frac{100}{3}} \times 100 = 5\%$

136. (d) According to question,

Let CP of the article is = Rs. 100

MP is 10% high of CP mean = Rs. 110

Discount always given on Marked Price

10% discount of MP means

= $\frac{10}{100} \times 110 = Rs. 11$

Thus, SP = MP - Discount

SP = 110 − 11 = Rs. 99

Thus%, $\frac{CP - SP}{CP} \times 100$

= $\frac{100 - 99}{100} \times 100 = 1/100 \times 100 = 1\%$

137. (c) According to question

$\frac{CP}{SP} = \frac{100}{120}$ 20% profit

$\frac{MP}{SP} = \frac{100}{90}$ 10 % discount

$\frac{CP}{SP} = \frac{100}{120} = \frac{5}{6}$, $\frac{MP}{SP} = \frac{100}{90} = \frac{10}{9}$

$\frac{CP}{SP} = \frac{5}{6}$ $\frac{MP}{SP} = \frac{10}{9}$

Thus CP   SP   MP

     45   54   60

     9 units

     profit

9 units → 7500

1 unit → $\frac{7500}{9}$

60 units → $\frac{7500}{9} \times 60 = 50000$

MP = Rs. 50000

138. (d) According to question,

CP   :   MP

(100 − Discount) : (100 + Profit)

100 − 10   :   100 + 12

     90   :   112

     45   :   56 Ans.

139. (d) According to question

CP   :   MP

(100 - Discount)   (100 + Profit)

(100 − 10)   :   (100 + Profit)

100 − 10   :   100 + 19

     85   :   119

     %34 unit more

Raised = $\frac{34}{85} \times 100 = 40\%$

140. (b) According to question,

Rita SP of TV = 16800

Profit = 800

CP = SP − Profit

= 16800 − 800 = Rs. 16000

Now given 20% Discount on the labeled price.

MP   SP (for Rita)

× 4000   × 4000

20000   16000

MP = Rs. 20000

141. (d) In this type of question go through option

SP = Rs. 39

Option (d)

CP = Rs. 30

Profit % = 30%

SP = $30 + \frac{30}{100} \times 30 = 30 + 9$

SP = 39 (Satisfied)

142. (a) According to question,

CP   :   MP

(100 - Discount) : (100 + Profit %)

100 − 10   :   100 + 12.5

90 units   112.5 units

1 unit = 800/90

112.5 units = $\frac{800}{90} \times \frac{1125}{10} = 1000$

Thus, MP= Rs. 1000 Ans.

143. (d) According to question,

$\frac{MP}{SP} = \frac{100}{77}$ 23% Discount

$\frac{CP}{SP} = \frac{10}{11}$ 10% discount

to make SP same

Thus, CP   SP   MP

770   847   1100

77 units $\rightarrow$ 56

1 unit $\rightarrow \frac{56}{77} = \frac{8}{11}$

1100 units $\rightarrow \frac{8}{11} \times 1100 = 800$

MP = Rs. 800

144. (b) According to question.
Marked Price = Rs. 300
As we know that,
Marked Price is 50% above the CP
Thus, Cost Price = Rs. 200
Option: - (b)
Original Selling Price = Rs. 250
Profit = SP − CP
= 250 − 200 = Rs. 50
Now SP increase 20%
New SP = Rs. 300
Profit = 300 − 200 = Rs. 100
New Profit become double Rs. 50 to Rs. 100

145. (c) 20% = $\frac{1}{5}$ (1 $\rightarrow$ Dis., 5 $\rightarrow$ MP)

M.P.   S.P.

5   4   (After discount)

5 $\rightarrow$ 150

1 $\rightarrow$ 30

S.P.   4 × 30 = Rs. 120

146. (d) According to question,

$\frac{CP}{MP} = \frac{5}{6}$ 20% above

$\frac{CP}{SP} = \frac{25}{27}$ 8% profit

to make CP same

CP   SP   MP

125   135   150

10% discount

147. (d) Let CP 100
MP = 120% of CP
Profit= 8%
SP = 108
So discount is = 120 - 108 = 12
= $\frac{12}{120} \times 100$ = 10%

148. (a) Account to question,

CP   MP
(100 - Discount)   (100+ Profit%)
(100 - 12)   (100 + 132)
    88   132

44 units hike

Hike% = $\frac{44}{88} \times 100 = 50\%$

149. (a) According to question,

CP   :   MP
(100 − Discount%)   (100 + Profit %)
(100 - 12)   (100 + 10)
    88   110

$\times \frac{1915}{22}$ $\times \frac{1915}{22}$
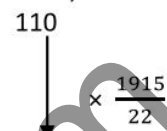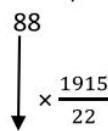
Rs.7660 (Given CP) :   [9575 (given MP)]

150. (a) According to question,
CP of 2000 books are = Rs. 70000
CP of 1 book is = $\frac{70000}{2000} = Rs. 35$
Marked price = of book = Rs. 75
Discount = 30%
Selling price of book = Rs. 52.5
Discount = = $\frac{22.5}{75} \times 100$ = 30%
He distributed 400 books free
Thus, SP of 1600 books = 52.5 × 1600
=Rs. 84000
Profit = SP - CP = 84000 - 70000 = Rs. 14000
Profit% = $\frac{14000}{70000} \times 100$ = 20% $gain$

151. (d) Let the Marked price = 100 unit
According to question,
100 (MP) $\xrightarrow{\text{30\% discount}}$ 70 (SP)
$\longrightarrow$ CP of retailer
CP sold at MP = 100
Profit = MP - CP = 100 - 70
= 30 units profit
Profit % = $\frac{30}{70} \times 100$
= $42\frac{6}{7}\%$

152. (c) According to question,

$\frac{CP}{MP} = \frac{100}{125}$ 25 % profit

$\frac{MP}{SP} = \frac{125}{105}$ 16 % discount

CP   SP   MP

100   105   125

5 % profit Ans.

153. (d) According to question,

$\frac{MP}{SP} = \frac{10}{9}$ 10% discount

$\frac{CP}{SP} = \frac{5}{6}$ 20% discount

to make SP same

CP   SP   MP

45   54   60

$\downarrow \times 10$ $\downarrow \times 10$

450 (Actual CP)   600 (Marked Price)
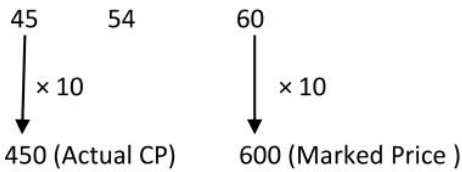
Thus, MP = Rs. 600

154. (b) According to question,

$\dfrac{MP}{SP} = \dfrac{100}{80}$ 20% discount

80 units = 64

1 unit $= \dfrac{64}{80}$

100 units $= \dfrac{64}{80} \times 100 = 80$

Thus, Original Price = Rs. 80

155. (d) Let CP of article = 100

Profit% = 25%

$\dfrac{CP}{SP} = \dfrac{100}{125}$ 25% $profit$

CP   SP

100   125

$\downarrow \times 70$ $\downarrow \times 70$

7000   8750

$\dfrac{CP}{MP} = \dfrac{70}{100}$ 30 % $Profit$

C.P.   M.P.

70   100

$\downarrow \times 100$ $\downarrow \times 100$

7000   **[10000]**
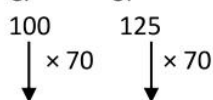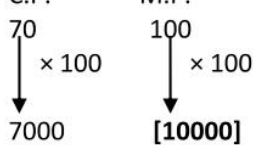
156. (a) According to question,

CP   :   MP

(100 − Discount) : (100 + Profit)

(100 − 10)   (100 + 12)

90   :   56

157. (c)

According to question,

CP   SP   MP

100   92   115

Dis.20%

15% above
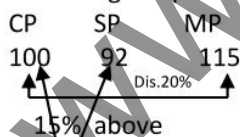
8% loss Ans..

158. (d) According to question,

$\dfrac{CP}{MP} = \dfrac{5}{6}$ 20 % $above$

$\dfrac{CP}{SP} = \dfrac{25}{27}$ 8 % $gain$

to make CP same

CP   SP   MP

---

125   135   150
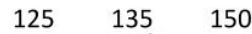
10 discount

159. (d) Let MP of the Saree = 100

According to question,

100 (MP) $\xrightarrow{\text{5% discount}}$ 95 (SP)

95 units = 266

1 unit = 266/95

100 units $\dfrac{266}{95} \times 100 = 280$

Thus, MP = 280

Now he sold at the MP they have Profit 12% on CP

Let CP of the saree = 100

100 (CP) $\xrightarrow{\text{12% profit}}$ 112 (SP)

112 units = 280

1 unit $= \dfrac{280}{112}$

100 units $= \dfrac{280}{112} \times 100 = 250$

Thus, CP of the saree = Rs. 250

160. (a) Let the marked Price = 100

According to question,

100 (MP)

30% Less   100 − 98 = 2 units loss

70 (SP$_1$)   98 (SP$_2$)
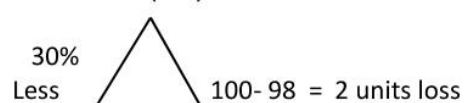
40% profit

On SP$_1$

Loss% $= \dfrac{2}{100} \times 100 = 2\%$

161. (c) Let MP of the article = 100

According to question,

$\dfrac{MP}{SP} = \dfrac{100}{90}$ 10% $discount$

$\dfrac{CP}{SP} = \dfrac{100}{117}$ 17% $profit$

to make SP Same

CP   :   SP   :   MP

9000 :   10530 :   11700

2700 profit

Profit% = 2700/9000 × 100 = 30%

162. (c) Let Marked price = Rs. 10

According to question,

10 (MP) $\xrightarrow{\times 45}$ 450(Actual)

10% discount

$9 \xrightarrow{\times 45}$ Rs. (405) Ans.

163. (c) According to question

$$\frac{MP}{CP} = \frac{13}{10} \quad 30\% \text{ more}$$

$$\frac{MP}{SP} = \frac{16}{15} \quad 6\frac{1}{4}\% \text{ discount}$$

to make MP same

CP	SP	MP
160	195	208

35 unit profit

Profit% $= \frac{35}{160} \times 100 = 21\frac{7}{8}\%$

164. (b) According to question,

$$\frac{CP}{SP} = \frac{50}{60} \quad 20\% \; profit$$

Now they given 15% discount on SP_1

Thus $SP_2 / SP_1 = \frac{51}{60} \quad 15\%$ discount

Profit $= SP_2 - CP$

$= 51 - 50 = 1$

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

165. (d) According to question,

$$\frac{CP}{MP} = \frac{10}{13} \quad 30 \% \; Raised$$

$$\frac{MP}{SP} = \frac{25}{23} \quad 8\% \; discount$$

to make MP same

CP	:	SP	:	MP
250		299		325

419 unit profit

Profit % $= \frac{49}{250} \times 100 = 19.65 \; Ans.$

166. (d) Given, M.P. = Rs. 975

→ Selling Price = 8979

→ Discount = MP - SP

→ Discount = 975 − 897 = 78

→ Then discount $= \frac{Discount}{Mark\ price} \times 100$

$\frac{78}{975} \times 100 \to Discount\% = 8\%$

167. (c) According to first condition total discount

$= a + b - \frac{ab}{100}$

$= 40 + 30 - \frac{40 \times 30}{100} = 70 - 12$

In first condition total discount = 58% ……… (i)

In second condition total discount

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

→ Total discount = 56%

→ According to question,

→ 58% - 56% = Rs. 2

→ 2% = 12 ×1% = 6

→ 100% = 600

Thus, Mark price will be = Rs. 600

168. (c) Single discount % will be

$10\% = -\frac{1}{10} \to$

$10\% = \frac{1}{10} \to 10$

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

$25\% = \frac{1}{4} \to \frac{4}{50}$

	MP	Discount	SP
	10	-1	9
	5	-1	4
	$\frac{4}{50}$	-1	$\frac{3}{27}$

23 Discount

Discount % $= \frac{Discount}{MRP} \times 100$

$= \frac{23}{50} \times 100\% = 46\%$

Alternative: From first two successive discounts using 10% and 20%

→ Equal single discount

$= (a + b - \frac{ab}{100})\%$

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

$= 28\%$

Using 28% and last successive discount of 25%

→ Equal single discount

$= (a + b - \frac{ab}{100})\%$

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

$= 28\%$

→ Using 28% and last successive c

→ Eqal single discount

$= \{a + b - \frac{ab}{100}\}\%$

$= \left(25 + 28 - \frac{25 \times 28}{100}\right)\%$

Final equal discount $= 46\%$

169. (d) According to the question,

First discount 10%

$\downarrow$ - 10

Rs. 90

Second discount 20%

$\downarrow$ - 18

Cost Price   Rs. 72

Transportation charge   10%

Actual cost price   Rs. 79.2

Profit %   15% $\downarrow$ + 11.88

Therefore, S.P. will be = Rs. 91.08

170. (a)
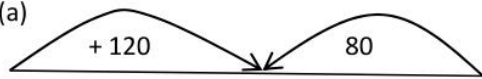
CP	SP	MRP
600	720	800

$\rightarrow$ MRP $\times 90\%$ = 720

$\rightarrow$ MRP $\times \frac{9}{10} = 720$

$\rightarrow$ MRP = Rs. 900

171. (d) Equivalent discount

$= \left(a + b - \left(\frac{ab}{100}\right)\right)\%$

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

$= 28\%$

172. (c) MRP $\rightarrow$ Rs. 720

First Discount - 10%   - 72

$\downarrow$

648

If discount $\rightarrow$ 97.2 $(648 - 550.8 = 97.2)$

$\downarrow$

Find S.P. = 550.80

$\rightarrow$ Discount% $= \frac{97.2}{648} \times 100$ = 15%

173. (c) Total discount %

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

$\rightarrow 35 - 3 = 32\%$

$\rightarrow 325 = \frac{32}{100}$ (32 $\rightarrow$ Discount, 100 $\rightarrow$ MRP)

MRP	Discount	SP
100	$\rightarrow$ 32	- 68
68 units	$\rightarrow$ 3060	

$\rightarrow$ 1 unit $\rightarrow$ 45

$\rightarrow$ Then MRP = 100 unit = 45 × 100 = Rs. 4500

174. (c) Given

$\rightarrow$ MRP of book = Rs. 100

$\rightarrow$ SP of 1 book = Rs. 274.50

$\rightarrow$ SP of 1 book = Rs. 91.50

$\rightarrow$ Discount on each book = 100 - 91.50

$\rightarrow$ Discount on each book = 100 - 91.50 = Rs. 8.5

$\rightarrow$ Therefore discount %

$= 8.5/100 \times 1005$ = 8.5%

175. (A) Let CP of Article = Rs. 100
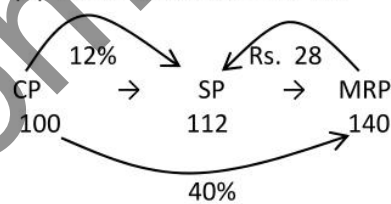
According to figure

$\rightarrow$ Discount% $= \frac{Discount}{MRP} \times 100\%$

$\rightarrow$ Discount% $\rightarrow$ 28//140 × 100%

$\rightarrow$ Discount% $\rightarrow$ 20%

176. (c)
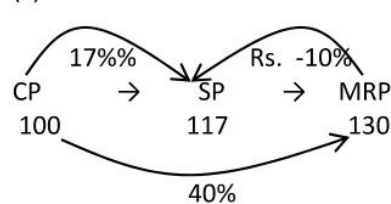
Let CP of article = Rs. 100

$\rightarrow$ then SP = Rs. 117

$\rightarrow$ MRP $\times 90\%$ = 117

$\rightarrow$ MRP $\times \frac{9}{10} = 117$

$\rightarrow$ MRP = Rs. 130

$\rightarrow$ If there is no discount then SP = MRP

$\rightarrow$ So SP = 130

$\rightarrow$ Profit $\rightarrow$ 130 - 100

$\rightarrow$ Profit $\rightarrow$ Rs. 30

$\rightarrow$ Profit% = 30/100 × 100% = 30%

Alternate :

CP   MP

100 − D%   100 + P%

90   117

27

Profit % $= \frac{27}{90} \times 100 = 30\%$

177. (d)

-12

Cost Price   Selling Price   Mark Price

100   108   120

+ 20

+ 20% more
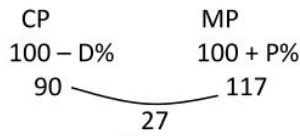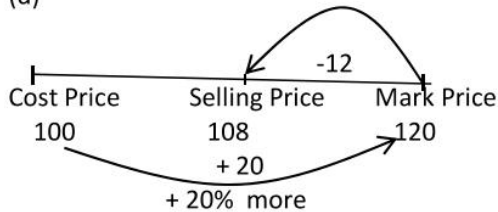
108 units = 216

1 unit = 2

CP = 100 units = 100 × 2 = Rs. 200

178. (d) According to the question,

$\frac{Cost\ Price}{Mark\ Price} = \frac{5}{9}$, $\frac{Cost\ Price}{Selling\ price}$

$= \frac{5}{6}$ 205 profit

Cost Price   Selling Price   Mark Price

5   6   9

3 unit discount

Discount% $= \frac{3}{9} \times 100 = 33\frac{1}{3}\%$

179. (b) Let CP = 100 x

Discount = 20%

SP = 100x - 20% of CP → 80x

80 x → Rs. 300

1x → $\frac{300}{80} \times 100$

100x → $\frac{300}{80} \times 100 = 375$

Actual CP = Rs. 375

New SP = Rs. 405

Profit = Rs. 30

Gain percent $= \frac{30}{375} \times 100 = 8\%$ *Ans.*

180.
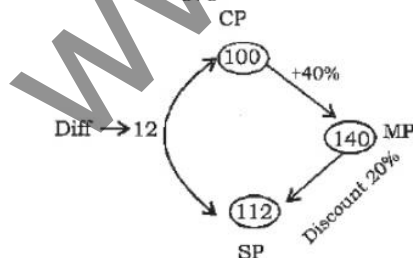
Let CP be 100

12 units → Rs. 48

1 unit → Rs. 4

100 units → 4 ×100

= Rs. 400

181. (b)

CP   SP

300   400

12% Increase / new CP   10%

new SP increase

336   440

104 difference

Profit % $= \frac{104}{336} \times 100 = 30\frac{5}{8}\%$
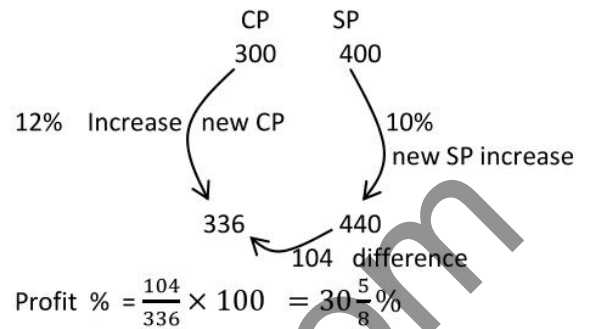
182. (d) % of profit $= 25 - 10 - \frac{25 \times 10}{100} = 12.5\%$

Alternate:

CP : MP : SP

4   5

9

8 : 10 : 9

P = 1 part

P $= \frac{1}{8} \times 100 = 12.5\%$

183. (a) Successive Discount

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

184. (a) Let MP = 100

SP = 80 (- 20% discount)

80 units = 1200

1 unit = 1200/80

100 units $= \frac{1200}{80} \times 100 = 1500$

= Rs. 1500

185. (b) Let CP be 100

CP   +30%   MP   - 10%   SP

100 → 130 → 117

Discount

17 (Profit)

Profit % $= \frac{17}{100} \times 100 = 17\%$

186. (d) MP   SP

250   225

- 25

Discount → $\frac{25}{250} \times 100 = 10\%$

187. (c) According to the question,

$\frac{MP}{SP} = \frac{50}{40}$ 20% discount

If S.P. = 40

to gain 40%   New S.P. = 40 × 140/100 = Rs. 56

% profit on the marked price $= \frac{6}{50} \times 100 =$ 12%

188. (c) Discount = x%

→ SP = Rs. y

→ MRP = ?

→ MRP × (100 - x)% = y

→ MRP $= \frac{y}{(100-x) \times \frac{1}{100}}$

→ MRP = Rs. $\frac{100y}{(100-x)}$

189. (c) Let the CP = Rs. 100

→ According to figures

Profit% = 14%

190. (a) Marked Price = x

$MP \times \frac{100-D\%}{100}$ = SP

$x \times \frac{100-15}{100}$ = 255

$x \times \frac{85}{100} = 255$

x = 300

191. (a) SP $= 300 \times \frac{100-15\%}{100} \times \frac{100-10}{100}$

$= 300 \times \frac{85}{100} \times \frac{90}{100} = 229.50$

192. (a) Successive Discount of 10% and 20%

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

Successive Discount of 28% and 25%

$= 28 + 45 - \frac{25 \times 25}{100} = 53 - 7 = 46\%$

Alternate:
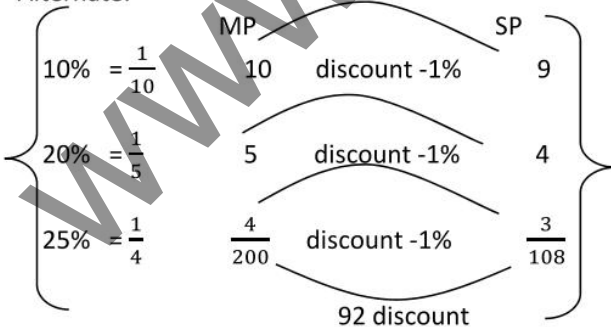
Discount% $= \frac{D}{MP} \times 100 = \frac{23}{50} \times 100 =$ 46%

193. (d) CP   MP

100 − D%   100 + P%
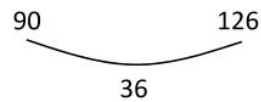
Required % = 36 / 90 × 100 = 40%

194. (d) According to question,

Thus, 1 unit = 15

10   units = 10 × 15 = Rs. 150

195. (c) According to question,

2.9 units
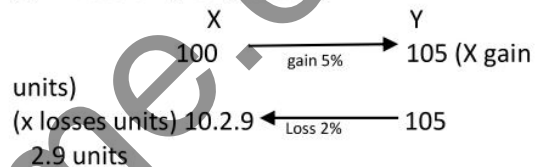
Thus In whole transaction gain

= 105 − 102.9 = 2.1 units

But, 100 units = 150000

1 unit = 1500

2.1 units = 3150 gain

196. (c) According to question,

Manufacturer gains → 10
11

Wholesaler gains → 20
23

Retailer gains → 4
5

800
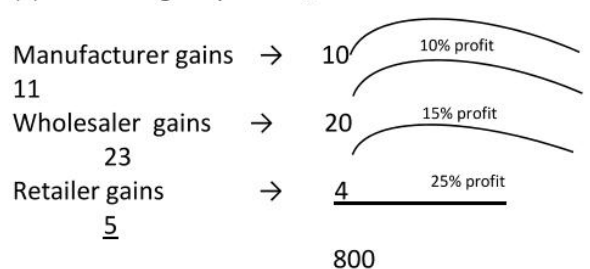
1265

× 1

1265 (Given)

Thus,   800 × 1 = Rs. 800 (CP)

197. (c) Let CP of the camera = 100 unit

12 % increase
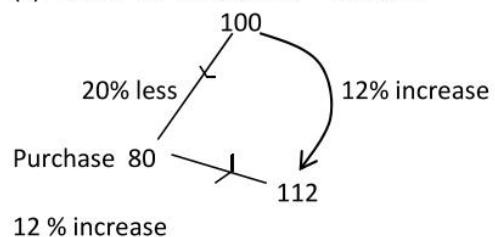
198. (c) Let car worth be 2000 unit

According to question,

5 % profit

X
2000

Y
2100

2058

2 % loss → 42 units gain
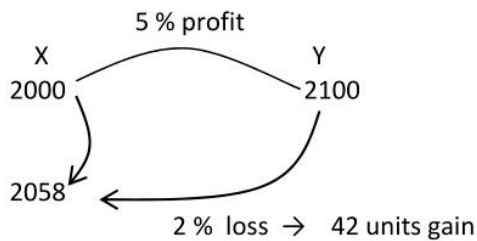
We know that car worth Rs. 150000

thus, 2000 units → 150000

1 unit → 75

42 units → 75 × 42 = 3150

In the entire transaction 'X' gain Rs. 3150

199. (c) According to question,

A → Manufacturer

B → Wholesale dealer

C → Shopkeeper

D → Customer

Thus,

A	→	B	10		11	
10% profit			×		×	
B	→	C	5		6	
20% profit			x		x	
C	→	D	20		17	
15% Loss			1000		1122	

× 50   × 50

[50000]   56100(Given)

200. (a) According to question,

A	→	B	20		21	
10% profit			×		×	
B	→	C	10		11	
20% profit			200		31	

CP of A   CP of C
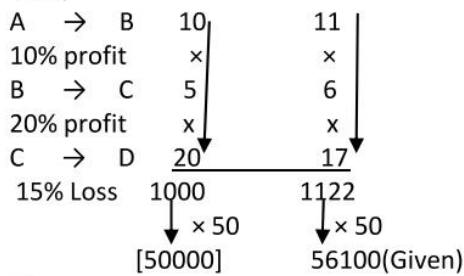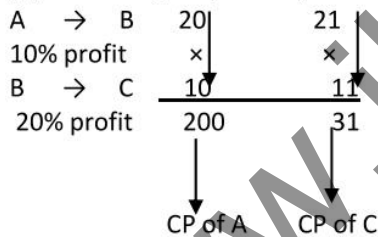
231 units = 2310

$1 \text{ unit} = \dfrac{2310}{231}$

$200 \text{ units} = \dfrac{2310}{231} \times 200 = 2000$

Thus, CP of A = Rs. 2000

201. (a) According to question,

A	→	B	10		11	
10% profit			×		×	
B	→	C	5		6	
20% profit			50		66	

CP of A   CP of C
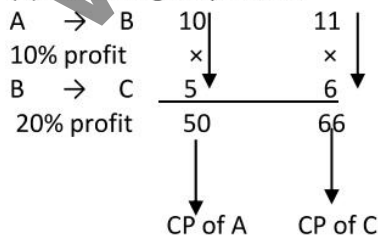
66 units = 264

$1 \text{ unit} = \dfrac{264}{66}$

$50 \text{ units} = \dfrac{264}{66} \times 50 = 200$

CP of A = Rs. 200

202. (c) According to question,

A	→	B	4		5	
25% profit			×		×	
B	→	C	10		9	
10% profit			40		45	

CP of A   CP of C
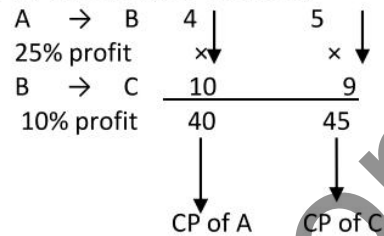
45 units = 675

$1 \text{ unit} = \dfrac{675}{40}$

$40 \text{ units} = \dfrac{675}{45} \times 40 = 600$

CP of A = Rs. 600

203. (c) According to question

A	→	B	100		81	
19% loss			↓ 60 ×		↓ × 60	
		CP [6000]			4860 → SP	

(Given)

17%   diff. = 1140
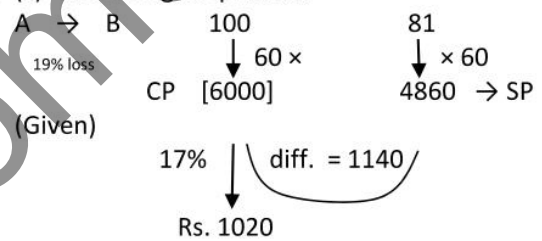
Rs. 1020

Now B sold to C at price that would given A profit of 17%

Total gain of B = Rs. 1020 + 1140

$= $ Rs. 2160

CP of B = Rs. 4860

$\text{Gain}\% = \dfrac{2160}{4860} \times 100$

$= 44\dfrac{4}{9} \%$

204. (d) According to Question,

A	→	B	10		11	
10% profit			×		×	
B	→	C	20		21	
5% profit			200		231	

CP of A   CP of C
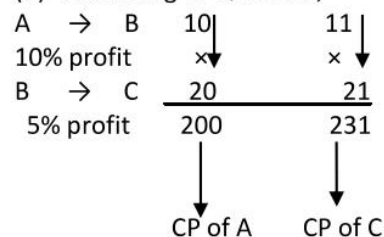
231 units = 462

$1 \text{ unit} = \dfrac{462}{231} = 2$

200 units = 2 × 200 = 400

CP of A = Rs. 400

205. (b) According to question

Shopkeeper sells his goods at Cost price,

Let, CP of 1000 gms good = Rs. 1000

He sold 900 gms good

SP of 900 gms good = Rs. 1000
CP of 900 gms good = Rs. 900

Profit % = $\frac{100}{900} \times 100 = 11\frac{1}{9}\%$

206. (c) According to question,
A shopkeeper fault while buying as well as selling and makes a profit of 5%

Thus, $\left(a + b + \frac{(ab)}{100}\right)\% = 5 + 5 + \frac{5 \times 5}{100}$

$= 10 + \frac{1}{4}$

Increase in profit = 10.25% Ans.

207. (d) Let the CP of the car = 100 units
According to question,

100   (CP)   10% loss 90
(SP$_1$) 20% profit   108 (SP$_2$)

108 units = 54000

1 unit $= \frac{54000}{108} = 500$

100 units = 500 × 100
     = Rs. 50000

CP of the car = Rs. 50000

208. (d) According to question,

A   →   B   10| 11|
10% gain   ×   ×
B   →   C   40   43
7.5% gain   ×   ×
C   →   D   4   3
25% loss   1600   1419

CP of A |× 2 |× 2   SP of C

3200(Given) **[2838]**

209. (c) According to question,

A   →   B   5| 6|
20% gain   ×   ×
B   →   C   10| 11|
10% gain   ×   ×
C   →   D   8   9
12.5% loss   400   594

CP of A   SP of C

CP of A pays by D
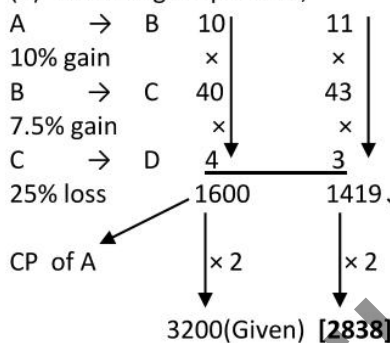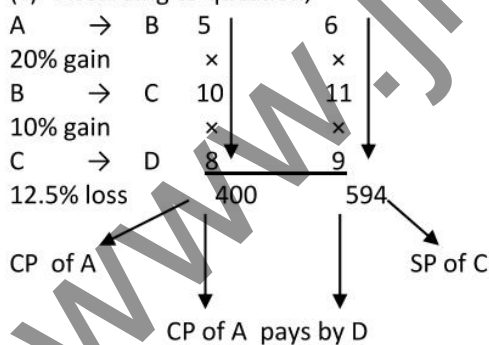
594 units = 29.7

1 unit $= \frac{29.7}{594}$

400 units $= \frac{29.7}{594} \times 400 = 20$

CP of A = Rs. 20

210. (c) According to question,

A   →   B   10   11
10% profit   ↓× 260   ↓ × 260
     [2600]   2860

211. (d) According to the question,

A   B →   5| 6|
20% Profit   ×   ×
B   C →   4   3
25% profit   20   18

     C.P.   C.P
     of A   of C
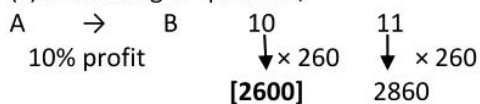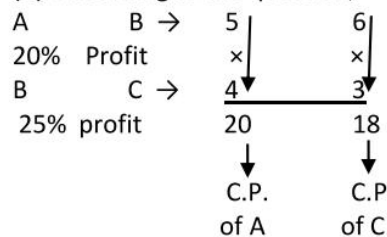
18 units → P
1 unit → P/18
20 units $\rightarrow \frac{P}{18} \times 20 = \frac{10P}{9}$

CP of A = Rs. $\frac{10P}{9}$

212. (b) According to question = 15% Loss,

CP   Loss   SP
100   15   85
↓ ×14   ↓× 14
1400   1190   → Ans.
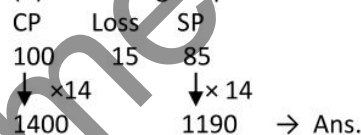
213. (a) According to question 7%, Loss

CP   Loss   SP
100   7   93
↓ ×7   ↓ × 7
700   651
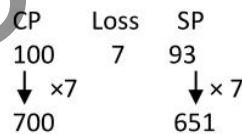
214. (d) According to question
Two successive discounts of 5%
Equivalent discount

$= a + b - \frac{ab}{100}$

$= 5 + 5 - \frac{5 \times 5}{100} = 10 - 25/100 = \frac{39}{4}\%$

MP = Rs. 80

Discount $= 80 \times \frac{39}{4 \times 100} = $ Rs. 7.8

SP = MP − Discount = Rs. (80 − 7.8) = Rs. 72.2

215. (a) According to question,

    CP   SP
I   4   -   5 (25% profit first time)
II   4   -   5
III   4   -   5
   64   125
   ↓ × 2   ↓ × 2
   128   250 (Given)
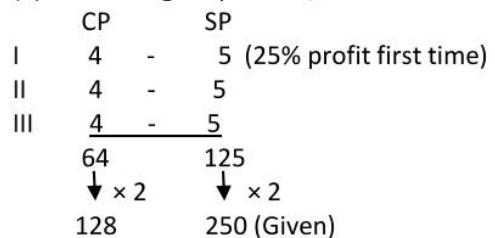
Thus, CP = Rs. 128

216. (b) According to question,

      Original   Reduced Price

Price   5   20%   4
       reduction

1 unit increase

Consumption 4 $_{4 \times 1}$ 5 $_{1 \times 4}$

4 kg
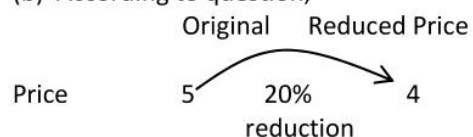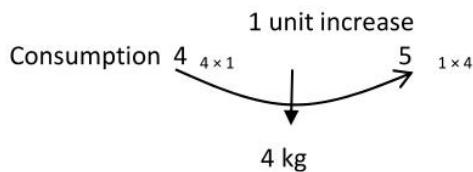
Reduced price of Salt

= Rs. $\frac{100}{20} = Rs. \ 5/kg$

217. (b) According to question,

10% reduced

10 $\rightarrow$ 9
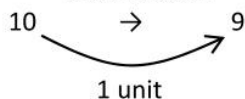
1 unit

218. (c) According to question,

Cut 10%

10 $\rightarrow$ 9

Increase
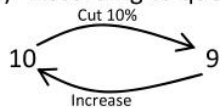
1 Unit

Raised % $= \frac{1}{9} \times 100$

$= 11\frac{1}{9}\%$

219. (d) According to question,

Price $\rightarrow$ 5   20% increase   6

Commodity $\rightarrow$ 6   5

1 unit less

$\times 4$ $\times 4$

24 mangoes   20 mangoes

4 mangoes

24 mangoes   CP   = Rs. 40

1 mango $= \frac{40}{24}$

15 mangoes   CP $= \frac{40}{24} \times 15 \ = Rs. \ 25$

220. (b) According to question,

Price $\rightarrow$ 5   20% Reduction   6

Commodity $\rightarrow$ 6   5

1 unit Increase

$\times 5$ $\times 5$

20   20

1 unit $\rightarrow$ 5 kg

4 units $\rightarrow$ 5 $\times$ 4 = 20 kg

5 units $\rightarrow$ 5 $\times$ 5 = 25 kg
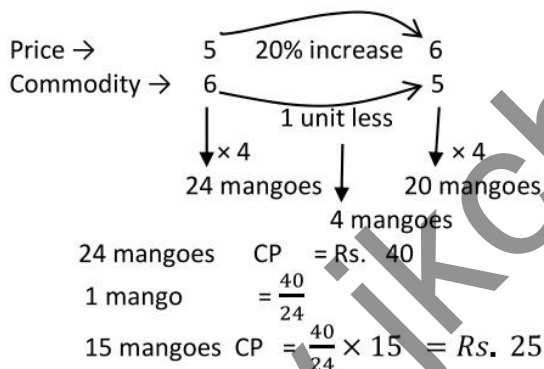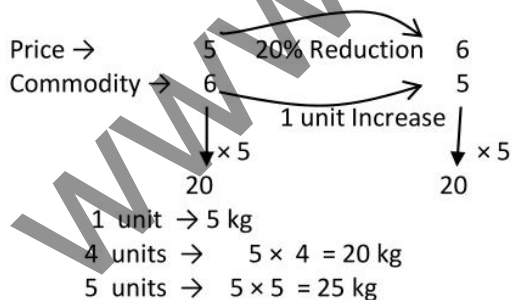
Original price of sugar per kg.

$= \frac{600}{20}$ = 30 Rs./kg

221. (c) According to question,

gain% = a + b + $\frac{ab}{100}$

= 20 + 30 + $\frac{20 \times 30}{100}$ = 56%

222. (c) According to question,

Total gain = a + b + $\frac{ab}{100}$

$= 10 + 10 + \frac{10 \times 10}{100} = 20 + 1$

Gain% = 21%

223. (a) According to question,

Grocer use 20% less weight = 1000 − 200 = 800 gm.

The Profit% $= \frac{200}{800} \times 100$ = 25%

Then total profit = 10 + 25 + $\frac{25 \times 100}{100}$ = 37.5%

224. (b) According to question,

Dishonest deals sold at CP uses a false weigh of 850 gm instead to 1 kg

Thus, Profit % $= \frac{150}{850} \times 100$ $= 17\frac{11}{17}\% \ profit$

225. (a) According to question,

	Goat − 1	Goat − 2	Total
CP	5 $_{\times 9}$ = 45 +	25	Rs.
70			
	20% loss	44% Profit	
SP	4 $_{\times 9}$ = 36 +	36	
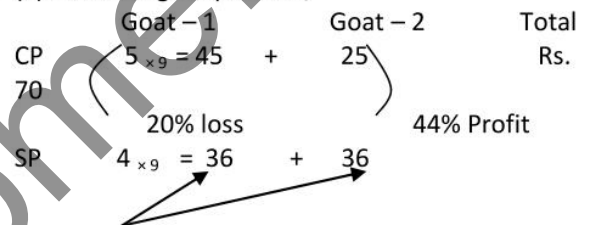
to make SP of both goat same

70 units $\rightarrow$ 1008

1 unit $\rightarrow \frac{1008}{70}$

45 units $\rightarrow \frac{1008}{70} \times 45$

72 × 9 = Rs. 648

CP of goat sold at loss

= Rs. 648

226. (a) According to question,

there is no loss or gain in the whole transaction means

16% profit on watch A CP$_1$ 12 % loss on watch B CP$_2$

= 0

16% watch A = 12%

$\frac{(WatchA)CP1}{Watch \ B(CP2)} \ = \ \frac{12\%}{16\%} \ = \frac{3}{4}$

CP1 + CP2 = 3 + 4 = 7 units

7 units $\rightarrow$ 840 (Given)

1 unit $\rightarrow$ 120

Thus, 3 units $\rightarrow$ 120 × 3 = 360

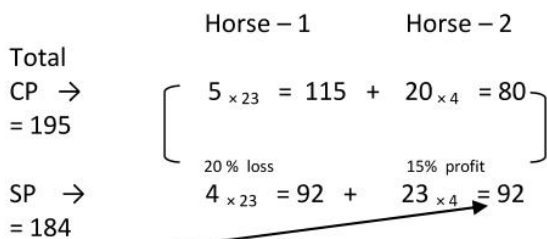CP of watch to sold at 16%

= Rs. 360

227. (c) According to question,

Profit Calculate   Profit Calculate

on   on
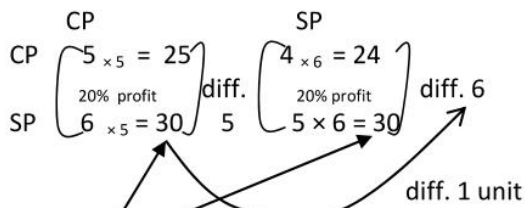
to make SP same of both chair

1 unit = Rs. 85

30 units = 30 × 85 = Rs. 2550

228. (b) According to question,

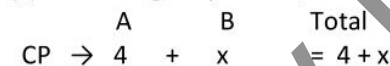|	Horse – 1	Horse – 2

Total
CP → = 195

$5_{\times 23} = 115 + 20_{\times 4} = 80$

20 % loss   15% profit

SP → = 184

$4_{\times 23} = 92 + 23_{\times 4} = 92$

to make SP same

Given,

195 units → 19500

1 unit → $\frac{19500}{195} = 100$

115 units → 100 × 115 = 11500

80 units → 80 × 100 = 8000

CP of two Horse are = Rs. 11500, Rs. 8000

229. (c) According to question,

	A	B	Total
CP →	4	+ x	= 4 + x
SP →	5	+ 5	= 10

25% Profit

4 + x = 10

Because there is no profit no loss

x = 6

Then loss is 6 − 5 = 1

Thus % = 1/6 × 100 = $16\frac{2}{3}$%

230. (c) According to question,

Fat - 1   Fan - 2

15% profit   9% loss

Neither loss Nor gain

9   15

8   +   5 → Total 8 units
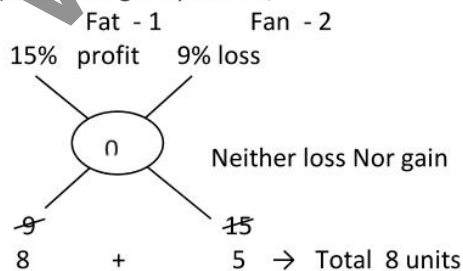
8 units = 2160

1 unit = $\frac{2160}{8}$ = 270

Thus : 3 units = 3 × 270 = Rs. 810

5 units = 5 × 270 Rs. 1350

CP = Rs. 810 , Rs. 1350

231. (c) According to question,

Articles	Price
Purchase	$11_{\times 10} = 110$ Rs. $10_{\times 10} = 100$

21

unit gain

Sold $10_{\times 11} = 110$ Rs. $11_{\times 11} = 121$

Thus, to make no. of articles same

Thus, 21% gain

232. (a) According to question,

Articles Price

Purchase $5_{\times 3} = 15$ Rs. $1_{\times 3}$ = Rs. 3

Rs. 2 gain

Sold $3_{\times 5} = 15$ Rs. $1_{\times 5}$ = Rs. 5

Thus: To make no. of pencil same

Gain% = $\frac{2}{3}$ × 100 = $66\frac{2}{3}$%

233. (d) According to question,

CP of 100 oranges is = Rs. 350

CP of 1 oranges is = Rs. 350/100 = Rs. 3.5

CP of 12 oranges is Rs. 3.5 × 12 = Rs. 42

SP of 12 oranges is = 48

Profit = SP - CP = Rs. (48 - 42) = 6

Profit % = $\frac{6}{48} \times 100$ = $\frac{100}{7}$ $14\frac{2}{7}$%

234. (c) According to question,

	Orange	Price
CP	$10_{\times 9}$ Rs.	$25_{\times 9}$ = Rs. 225

Profit Rs. 25

SP $9_{\times 10}$ Rs. $25_{\times 10}$ = Rs. 250

Thus, oranges make same

Profit% = 25 / 225 × 100 = 100/9%

235. (d)

	Articles	Prices
CP	$6_{\times 5} = 30$	$5_{\times 5}$ = Rs. 25
SP	$5_{\times 6} = 30$	$6_{\times 6}$ = Rs. 36

11 profit

to make articles same

Profit % $= \frac{11}{25} \times 100 = 44\%$

236. (b) According to question,

Price   Article

Purchase $\left[\begin{array}{l} \text{Rs. } 1_{\times 36} \\ \text{Rs. } 1_{\times 45} \end{array}\right.$ $\begin{array}{l} 5_{\times 36} \\ 4_{\times 45} \end{array}$ 180

Sold   Rs. $2_{\times 30}$ $9_{\times 20}$

LCM of 5, 4, 9

to make

same the article

Thus, total no of articles = 360 1 3 = 1080

237. (c) According to question,

Pencil   Price

CP $6_{\times 4} = 24$ $4_{\times 4} = $ Rs. 16

20 profit

SP $4_{\times 6} = 24$ $6_{\times 6}$ Rs. 36

to make Pencil same

Profit % $= \frac{20}{16} \times 100 = 125\%$

238. (d) According to question

Toffees   Price

CP $2_{\times 5} = 10$ $1_{\times 5} = 5$

SP $5_{\times 2} = 10$ $1_{\times 2} = 2$ Loss 3

.To make Pencil same

loss% $= \frac{3}{5} \times 100 = 60\%$

239. (a) According to question,

Toffee   Price

$11_{\times 9} = 99$ $10_{\times 9} = 90$

$9_{\times 11} = 99$ $10_{\times 11} = 110$

Total   198   200

to make toffee same

Sold at one rupee per to toffee

Thus, SP of 198 toffee = Rs. 198

CP of 198 toffee = Rs. 200

Loss% $= \frac{2}{200} \times 100 = 1\%$

240. (b) According to question,

CP $20_{\times 15} = 300$ $60_{\times 15} = 900$

    $30_{\times 10} = 300$ $60_{\times 10} = 600$

Total →   600   1500

SP → $25_{\times 12} = 300$ $60_{\times 12} = 720$

to make oranges is Rs. 1500

SP of 300 oranges is Rs. 720

SP of 600 oranges is Rs. 1440

Loss = CP - SP = $1500 - 1440 = 60$

Loss% $= \frac{60}{1500} \times 100 = 4\%$

241. (c) According to question,

CP of 73 articles are = Rs. 5110

CP of 1 article is $= \frac{5110}{73} = $ Rs. 70

SP of 89 articles are = Rs. 5607

SP of 1 articles is = Rs. $\frac{5607}{89} = Rs. 63$

Loss = CP − SP = $70 - 63 = $ Rs. 7

Loss% $= \frac{7}{10} \times 100 = 10\%$

242. (c) According to question,

Article   Price

CP $5_{\times 4} = 20$ $1_{\times 4} = 4$

SP $4_{\times 5} = 20$ $1_{\times 5} = 5$

to make article same

Profit % $= \frac{1}{4} \times 100 = 25\%$

243. (c) According to question,

CP → $3_{\times 5} = 15$ $5_{\times 5} = 25$

                 11 units

profits

SP → $5_{\times 3} = 15$ $12^{\times 3} = 36$

to make article same

11 units → 143

1 unit → $\frac{143}{11} = 13$

Thus, 15 units → $13 \times 15 = 195$

the number of eggs he bought is = 195

244. (a) According to question

Oranges   Price

CP → $8_{\times 12} = 96$ $34_{\times 12} = 408$

                       48

units profit

SP → $12_{\times 8} = 96$ $57_{\times 8} = 456$

to make oranges same

48 units → 45

1 unit → $\frac{45}{48} = \frac{15}{16}$

96 units → $\frac{15}{16} \times 96 = 90 \, Ans.$

245. (d) According to question,

Books   Price

CP → $11 \times 10 = 110$ $100 \times 10 = 1000$

                      210

unit profit

SP → $10 \times 11 = 110$ $110 \times 11 = 1210$

to make books same

Profit% $= \frac{210}{1000} \times 100 = 21\%$

246. (c) According to question,
CP of 7 Pens are = Rs. 10
Gain 40%
SP of 7 Pens are = Rs. 14
SP of 1 Pens are $= \frac{14}{7} = 2$
Customer gets in 10 Rs. $= \frac{10}{2} = 5 \, pens$

247. According to question,

	Articles	Price
CP➜	1	10
		$\underline{14}$
		24 2 Profit
SP →	$1_{\times 2} = 2$	$13_{\times 2} = 26$

Profit % $= \frac{2}{24} \times 100 = 8\frac{1}{3}\%$

248. (d)

	Oranges	Price
C.P Type 1	$3_{\times 5} = 15$	$40_{\times 5} = 20$
C.P Type 2	$5_{\times 3} = 15$	$60_{\times 3} = \underline{180}$
		380 (Total CP)

to make oranges same

	Oranges	Price
SP →	$3_{\times 10} = 30$	$50_{\times 10} = 10$ **[500]**

Gain per cent $= \frac{Profit}{CP} \times 100$
$\rightarrow \frac{500-380}{380} \times 100$
$\rightarrow \frac{120}{380} \times 100 = \frac{600}{19} = 31.57 = 32\%$

249. (d) According to question,

	Old		New
Price	5	→	6
Consumption	6	→	5
Expenditure	30		30

% decrease $= \frac{1}{6} \times 100 = 16\frac{2}{3}\%$

250. (c) According to question,
CP $= 30 \times 9.50 + 30 \times 8.5$
$= 30 [9.5 \times 8.5]$
$= 30 \times 18 = Rs. 540$
SP $= 60 \times 8.90$
$= Rs. 540$
Loss $= CP - SP = 540 - 534 = Rs. 6$

251. (c) According to question,

Tea – 1	Tea – 2
180 per kg	200 per kg
×	×
5	3 Total CP

CP $= 900 + 600 = 1500$
SP $= 210 \times (5 + 3)$
$= 210 \times 8 = 1680$

Profit = SP - CP = 1680 - 1500 = 180
Profit $= \frac{Profit}{CP} \times 100$
$= \frac{180}{1500} \times 100 = 12\%$

252. (a) According to question,
CP of Mixture
$= \frac{80 \times 13.5 + 120 \times 16}{200} = \frac{1080 + 1920}{200}$
$= \frac{3000}{200} = 15$
to gain 20% SP is $= 15 \times \frac{20}{200} \times 15$
$= 15 + 3 = Rs. 18$ per kg
Alternative :

80 kg	120 kg
2	3
13.50/kg	16/kg

x/kg
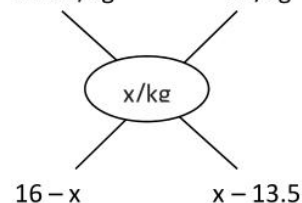
16 – x	x – 13.5

$\frac{16-x}{x-13.5} = \frac{2}{3}$
$48 - 3x = 2x - 27$
$5x = 75$
$x = 15/kg$
CP of mixture = Rs. 15 kg.
to gain 0% SP $= 15 + \frac{20}{100} \times 15$
$= 15 + 3 = 18 \, kg$

253. (b) Let cost price of 1 kg = Rs. 1
Cost price of 50 kg = Rs. 50
$\rightarrow$ Profit $= \frac{10}{100} \times 50 = Rs. 5$
Thus, Qty to added $= \frac{5}{1} = 5 \, kg$

254. (d) According to question,

CP of 70 liters of milk = Rs. 630
Added 5 liters of water,
Now, solution becomes = 75 liters
CP of water = Rs. 0
Thus, SP of 1 liter milk = Rs. 9
SP of 75 liters milk = 9 × 75 = 675 Rs.
Profit = SP − CP
= 675 − 630 = 45
Profit% = $\frac{45}{630} × 100 = \frac{50}{7} = 7\frac{1}{7}\%$

255. (a) According to question,
SP of mixture of milk and water = Rs. 9
Thus, CP of mixture of milk and water = 261
= $9 × \frac{100}{120}$ = Rs. 7
Now we use allegation to find the ratio in which water and milk mixed

Price of Pure milk   Price of Pure Water
   10   0

         7.5   →   Price of
mixture

   7.5   2.5
   3   :   1 →
      Ans.
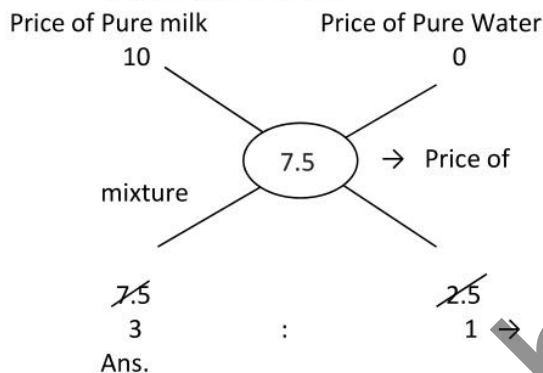
256. (d) According to question
CP of mixture of Rice
= 15 × 29 + 25 × 20
= 450 + 500 = Rs. 935
SP of 1 kg Mixture of Rice = Rs. 27
SP of 40 kg Mixture of Rice
= 24 × 40 = Rs. 1080
Profit = SP - CP = 1080 − 935 = 1080

257. (c) Let first blend is 2 kg and Second blend is 3 kg
total cost Price = (35 × 2) + (40 × 3)
= 70 + 120
= 190 Rs.
Total SP = (1 × 46) + (4 × 55) =
[$\frac{1}{5}$ of 5 kg = 1kg]
= Rs. 266
Profit percent = $\frac{Total\ profit}{Total\ CP} × 100$
→ $\frac{266-190}{190} × 100$
→ $\frac{76}{190} × 100 = 40\%$

258. (d) Ratio will be 25% = $\frac{1}{4}$
Water : Milk = 1 : 4

259. (c) According to question,
Let CP − CP = Loss
17x − 720 = 5x
12x = 720, x = 60
Thus, CP of 1 ball is Rs. 60

260. (a) Let SP of 1 book is Rs. x
SP of 25 books is Rs. 25x
According to question,
SP − CP = Profit
25x - 2000 = 5x
25x − 5x = 2000
20x = 2000
x = Rs. 100
Thus, SP of 1 book is Rs. 100

261. (a) Let SP of 1 hen = Rs. 1
SP of 144 hens = Rs. 144
Let CP of 1 hen = Rs. x
CP of 144 hens = Rs. 144 x
According to question
CP − SP = loss (SP of 96 hens)
According to question,
CP - SP = Loss (SP of 96 hens)
144x - 144 = 96
144x = 96 + 144
144x = 240
x = $\frac{240}{144} = \frac{5}{3}$
CP of 1 hen = Rs. $\frac{5}{3}$
CP of 144 hens = 5/3 × 144 = Rs. 240
Loss% = $\frac{96}{240} × 100 = 40\%$

262. (a) Let SP of 1 pencil is Rs. 1
SP of 100 pencils is Rs. 100
CP of 1 pencil is Rs. = 100x
According to question,
Gain = SP − CP
20 = 100 − 100x
100x = 80
x = $\frac{80}{100} = \frac{4}{5}$,
x = $\frac{4}{5}$
CP of 1 pencil = $\frac{4}{5}$
CP of 100 pencils = $\frac{4}{5} × 100 = Rs.$ 80
SP of 100 pencils = Rs. 100
Thus, Gain % = $\frac{20}{80} × 100 = 25\%$

263. (a) Let the SP of 1 pen = Rs. 1
The SP of 12 pens = Rs. 12
Let the CP of 12 pens = Rs. 12x

According to question,

Profit = SP − CP

Profit = 12 − 12x

4 = 12 − 12x

12x = 12 − 4

12x = 8

$x = \frac{8}{12} = \frac{2}{3}$

$x = \frac{2}{3}$

CP of 12 pens $= 12 \times \frac{2}{3} = Rs. \ 8$

SP of 12 pens = Rs. 12

Profit = SP − CP

= 12 − 8 = 4

Profit % $= \frac{4}{8} \times 100 = 50\%$

264. (a) Let SP of 1 meter cloth

= Rs. 1

SP of 33 meters cloth = 33

CP of 1 meter cloth = x

CP of 33 meter cloth = 33x

According to question,

Profit = SP − CP

11x = 33 − 33x

44x = 33

$x = \frac{33}{44} = \frac{3}{4}$

CP of 1 meter = Rs. $\frac{3}{4}$

CP of 33 meters = Rs. $\frac{3}{4} \times 33 = Rs. \frac{99}{4}$

SP of 33 meters = Rs. 33

Profit = SP − CP $= 33 - \frac{99}{4} = \frac{33}{4}$

Thus, Profit % $= \frac{\frac{33}{4}}{\frac{99}{4}} \times 100 = \frac{33}{99} \times 100$

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

265. (c) Let the SP of 1 meter cloth = 1 Rs.

The SP of 33 meters cloth = 1 × 33 = 33 Rs.

CP of 1 meter cloth = Rs. x

CP of 33 meters cloth = x × 33 = Rs. 33x

According to question,

Profit = SP − CP

11 = 33 − 33x

33x = 22

$x = \frac{22}{33} = \frac{2}{3}$

CP of 1 meter cloth = Rs. $\frac{2}{3}$

CP of 33 meters cloth $= \frac{2}{3} \times 33 = Rs. \ 22$

SP of 33 meters cloth = Rs. 33

Profit = SP − CP

= 33 − 22 = 11

Profit % $= \frac{11}{22} \times 100 = 50\% \ Ans.$

266. (a) Let SP of 1 meter cloth = Rs. 1

SP of 25 meters cloth = 25 × 1 = 25

CP of 1 meter cloth = Rs. x

CP of 25 meter cloth = 25x

According to question,

Gain = SP − CP

5 = 25 − 25x

25x = 20

$x = \frac{20}{25} = \frac{4}{5}$

CP of 1 meter cloth is = Rs. $\frac{4}{5}$

CP of 25 meter cloth $= \frac{4}{5} \times 25 = Rs. \ 20$

SP of 25 meter cloth = Rs. 25

Gain % $= \frac{5}{20} \times 100 = 25\%$

267. (a) According to question,

CP = Rs. 840

10 % Profit on CP $= \frac{10}{100} \times 840 = Rs. \ 84$

Thus, SP = 840 + 84 = Rs. 924

New buyer CP = Rs. 924

5% loss on CP $= \frac{5}{100} \times 924 = Rs. \ 46.2$

SP = Rs. 924 − 46.2 = Rs. 877.80

268. (c) According to question,

$SP = \frac{2}{3} MP, \frac{SP}{MP} = \frac{2}{3}$

If there is loss of 10% means $\frac{1}{10}$

$\frac{CP}{SP} = \frac{10}{9} \quad Loss \ of \ 10\%$

$\frac{CP}{SP} = \frac{10}{9}, \frac{SP}{MP} = \frac{2}{3}$

to make a ratio

CP	SP	MP
20	18	27

% profit when article is sold at MP

Profit = MP − CP

= 27 − 20 = Rs. 7

Profit % $= \frac{1}{20} \times 100 = 35\%$

269. (b) According to question,

CP	MP	MP	SP
100	115	100	88

15% above   12% Less

$\frac{CP}{MP} = \frac{100}{115} = \frac{20}{23}$

$\frac{MP}{SP} = \frac{100}{88} = \frac{25}{22}$

The ratio becomes

CP	SP	MP
500	506	575

6 units
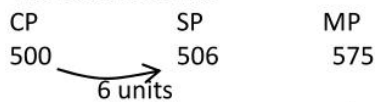
Profit % $= \frac{6}{500} \times 100 = 1\frac{1}{5}\%$

270. (c) In this type of question go through option

Option (c):

CP = Rs. 50

Gains as much percentage as the cost price of the article means 50

% gains

50% of CP

50% of Rs. 50 = Rs. 25

SP = CP + Profit

= 500 + 25

SP = 75 Rs.

271. (b) According to question

120 (books 3 Rs. each)

$\frac{1}{3}$ $\frac{1}{2}$

40 books + 60 books + 20 books

= 120 book

$\frac{Rs.4\ each}{60}$ + $\frac{Rs.5\ each}{300}$ +

$\frac{Rs.3\ each}{60}$ ×3
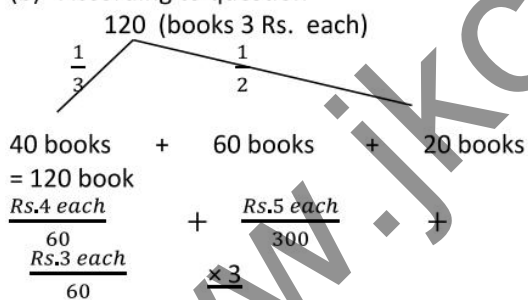
360 – SP

= 520 – SP

Total, CP = 360

SP = 520

Profit = 520 – 360 = 160

Profit % $= \frac{160}{360} \times 100 = \frac{400}{9} 44\frac{4}{9}\%$

272. (b) According to question

Sells it 10% profit of the SP

$\frac{1 \rightarrow Profit}{10 \rightarrow SP}$

CP = SP - Profit → 10 – 1 = 9 units

Now, 9 units → Rs. 27

1 unit → Rs. 3

10 units → 3 × 10 = Rs. 30

SP of article = Rs. 30

273. (b) According to question,

SP = Rs. 144

CP is equal to percentage of profit

Note: In this type of question go through option.

Option (b) : CP = Rs. 80

Profit% = 80%

SP $= 80 + \frac{80}{100} \times 80 = Rs.\ 144\ (Satisfied)$

274. (a) According to question,

	Original Price	25% Reduced	Reduced Price
Price	4		3
Consumption	3		4
	↓ ×2		↓ ×2
	6		8
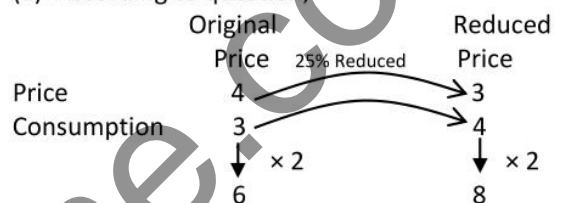
1 unit → 2

3 units → 2 × 3 = 6

4 units → 2 × 4 = 8

275. (d) According to question,

CP $= \frac{13}{15} SP$, $\frac{CP}{SP} = \frac{13}{15}$

If they sold 12% more then its Old selling price.

So New selling price is

$= 15 + \frac{12}{100} \times 15 = 16.8$

Thus, Profit = SP - CP

= 16.8 - 13 = 3.8

Profit $= \frac{3.8}{13} \times 100 = 29\frac{3}{13}\%$

276. (c) According to question,

CP	SP	MP	SP
100 :	120	100 :	90
5 :	6	10 :	9

20% profit   10% Discount
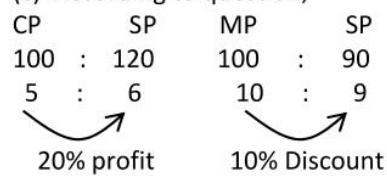
If

$\frac{CP}{SP} = \frac{5}{6} = \frac{MP}{SP} = \frac{10}{9}$

to make same SP

CP	SP	MP
45 :	54 :	60

15 unit increase

Thus, Percentage raised $= \frac{15}{45} \times 100$

$= \frac{100}{3}\%$

Quicker approach :

CP   MP

100 - Discount   100 + Profit%

100 − 10%   100 + 20%

90   120

30 unit increase

% raised $= \frac{30}{90} \times 100 = 33\frac{1}{3}\%$

277. (a) Let total consignment is 600 units

And the value of 1 unit is = Rs. 1

The value of 600 units

$= 1 \times 600 = $ Rs. 600

According to question,

600

$\frac{2}{3}$ Part $\frac{1}{3}$ part

400

5%   2% loss

420   196 = 616

CP of consignment = 600

SP of consignment = 616

16 units → 400

1 unit → 400/16

600 units → $\frac{400}{16} \times 600 = 15000$

Value of consignment = Rs. 15000

278. (c) According to question,

      2 Parts   3 Parts   Total

CP   2   :   3   :   5

     or   or   or

   200   +   300   =   500

     25% profit   10% overall

SP   250   +   300   =   550

Thus, Remaining parts sold at CP

SP of 3/5ᵗʰ part $= \frac{3}{5} \times 360000$

=Rs. 216000

Alternative :

$\frac{2}{5}$ $\frac{3}{5}$

A   B

25%   x%

10%

(10- x)   :   15

$\frac{10-x}{15} = \frac{2}{3}$, x = 0%
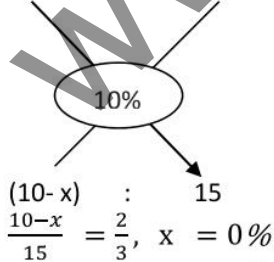
Hence, remaining $\frac{3}{5}$ *th part sold at CP 1*

279. (c) Let total no. of articles is 40 unit

CP of 1 article is Rs. 1

According to question,

40 (Article)

$\frac{3}{4}$ Part $\frac{1}{4}$ Part

CP → 30   +   10   = 40   6 unit profit

SP   36   +   10   = 46

Profit% $= \frac{6}{40} \times 100 = 15\%$
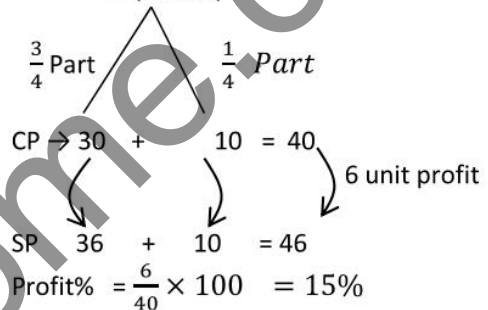
280. (c) According to question,

CP of 12 articles = Rs. P

SP of article = Rs. $\frac{P}{8} \times 12 = \frac{3}{2}P$

Profit = SP - CP

$= \left(\frac{3P}{2} - P\right) = \frac{3P - 2P}{2} = \frac{P}{2}$

Profit% $= \frac{\frac{P}{2}}{P} \times 100 = \frac{1}{2} \times 100$

= 50%

281. (d) According to question,

25% of SP $= \frac{1 \to Profit}{4 \to SP}$

thus, CP = SP - Profit

CP = 4 − 1

CP = 3

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

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

282. (b) According to question,

20% profit on CP $= \frac{1 - Profit}{5 \to CP}$

Thus, SP = CP + Profit

SP = 5 + 1

SP = 6

Percentage of profit calculated on SP

Profit% $= \frac{Profit}{SP} \times 100$

Thus, SP of part $\frac{3}{5}$ *th* $= \frac{3}{5} \times 360000$

= Rs. 216000

$= \frac{1}{6} \times 100 \ = 16\frac{2}{3}\%$

283. (a) Let the total cloth is = 100 units
CP of 100 units cloth are = Rs. 100
According to question,

          100 (unit cloth)

50   +   25   +   25   = Rs. 100

                      5% Profit

60   +   20   +   25   = Rs. 105

5 % profit

284. (d) According to question,
20 dozen eggs CP = Rs. 720
1 dozen eggs CP = Rs. 36
1 egg CP = Rs. 3
to gain 20% SP of 1 egg is
= CP + Profit% × CP
$= 3 + \frac{20}{100} \times 3$
= 3 + 0.6 = Rs. 3.6

285. (c) Let CP of 12 lemons = Rs. 5 units
According to question,
SP of 5 lemons = Rs. 14
SP of 1 lemon = 14/5
SP of 12 lemons = 14/5 × 12 = Rs. 168/5
5 units (CP) 40% Profit 7 units (SP)
$7 \text{ units} \rightarrow \frac{168}{5\times7} = \frac{24}{7}$
$5 \text{ units} \rightarrow \frac{24}{5} \times 5 = 24$
CP of 12 lemons = Rs. 24

286. (a) According to question,
Mahesh purchased radio
$= \frac{9}{10} \ of \ its \ SP$
Let original SP = 100 units
Original SP
Purchased   SP
   90   100

         108 (New SP)
Profit % $= \frac{18}{90} \times 100 = 20\%$

287. (a) Richa purchased an article $= \frac{4}{5} \ of \ its \ list$
price
Let list price = 50 units
Thus, Richa purchased at = 40 units
Purchased   List price
    40   50
20 units   20% Profit
  profit
      60 (New SP)

Profit% $= \frac{20}{40} \times 100 = 50\%$

288. (d) Let CP of the article is = 100 units
According to question,
         100 (CP)

115   110
     5 units difference
5 units → 10
$1 \text{ unit} \rightarrow \frac{10}{5}$
$100 \text{ units} \rightarrow \frac{10}{5} \times 100 = Rs. \ 200$

289. (b) Let the CP of the article = 100 units
According to question,
         100 (CP)

25%   25 units
Profit   difference

      125 (SP)
25 units → 210
$1 \text{ unit} \rightarrow \frac{210}{25}$
125 units→ 210/25 × 125
= Rs. 1050 (SP) Ans.

290. (b) Let CP of the article = 100 units
According to question,
         100(CP)

106   104
     diff. 2 units
2 units → 3
$1 \text{ unit} \rightarrow \frac{3}{2}$
$100 \text{ units} \rightarrow \frac{3}{2} \times 100 = 150$
Thus, CP → Rs. 150

291. (d) Let initial SP = 100
Reduced SP = 100 − 60 = 40
According to question,
CP   SP
100   10% loss   90

90 units → 40

1 unit → 40/90

100 units → $\frac{40}{90} \times 100 = \frac{400}{9}$

CP = 400/9, SP = 100

Profit = $100 - \frac{400}{9} = \frac{500}{9}$

Profit% = $\frac{\frac{500}{9}}{\frac{400}{9}} \times 100 = \frac{5}{4} \times 100 = 125\%$

292. (d) According to question,

$CP = \frac{95}{100} SP$

$\frac{CP}{SP} = \frac{95}{100} = \frac{19}{20}$ 1 unit profit

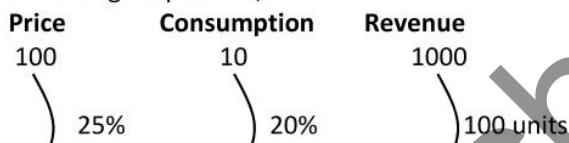Profit% $= \frac{1}{19} \times 100 = 5.26\%$

293. (d) According to question,

$CP = \frac{90}{100} SP$

$\frac{CP}{SP} = \frac{9}{10}$ 1 unit profit

$Profit \% = \frac{1}{9} \times 100 = 11\frac{1}{9}\%$

294. (d) Let the price of cloth = Rs. 100
and consumption of cloth = 10 units
According to question,

Price	Consumption	Revenue
100	10	1000

25%   20%   100 units

loss

75	12	900

Loss% $= \frac{100}{1000} \times 100 = 10\%$

295. (b) Let the numbers of articles be = 400 units

The CP of 1 articles = Rs. 1

The CP of 400 articles is = 1 × 400 = Rs. 400

According to question,

400 (units)

¾ part   ¼ part

300 (units)   100 (units)

CP → 300 × 1 = 300 + CP → 100 × 1 = 100 = 400

24% profit   Sold at CP   72 units

profit

    372 +   100 = 472
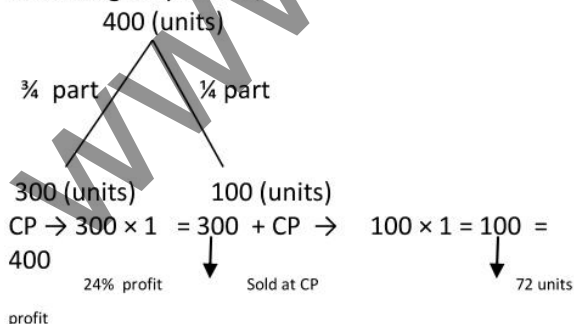
Profit% $= \frac{72}{400} \times 100 = 18\%$

296. (c) Let CP of the article = 100

According to question,

100 (CP) $\xrightarrow{30\% \text{ Profit}}$ 130 (SP)

Given:

130 units = 1690

1 unit $= \frac{1690}{130} = 13$

100 units = 13 × 100 = 1300

CP = Rs. 1300

297. (b) According to question

A ⤳ B   5   6

Profit of $\frac{1}{5}$ of his outlay   ×

B ⤳ C   5   6

20% profit   ×

C ⤳ D   5   6

     150   180

loss of $\frac{1}{6}$ of his out lay   CP of A   SP of C
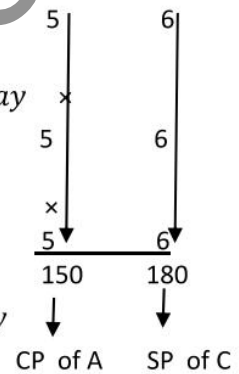
180 units = 600

1 unit $= \frac{600}{180}$

150 units $= \frac{600}{180} \times 150 = 500$

CP of A = Rs. 500

298. (c) According to question,

Let original Price = 100

100 (CP)

5% less   14% profit

95(CP)   114(SP)
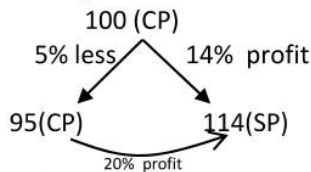
20% profit

14% Ans.

299. (c) Profit of A = Profit of B

10% A = 15% B

$\frac{A}{B} = \frac{15}{10} = \frac{3}{2}$

A : B = 3 : 2

Now with the help of option, check the ratio of CP of A and B

Option (C)

3000   :   2000

3   :   2

300. (b) Let the number of unit land is = 500 units

CP of 1 unit land = Rs. 1
According to question,

500 (units land)

$\frac{2}{5}$ Part $\frac{3}{5}$ part

200 (units)   300 (units)
CP → 200 × 1 = 200 + 300 = 300 = 500

6% loss   62 units increase   10% profit

SP →   188 +   362 = 550

Gain% = 62/300 × 100 = $20\frac{2}{3}$%
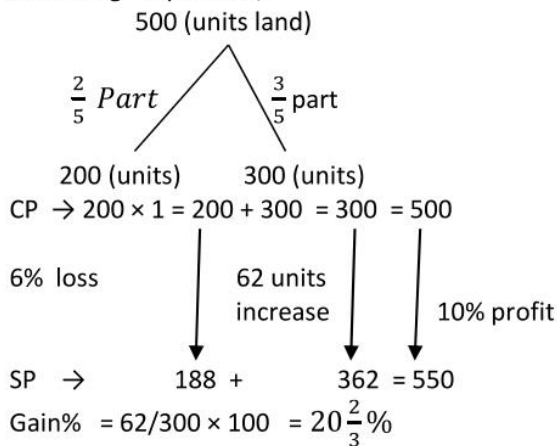
301. (a) Let the marked price = 100
According to the question,

Selling price = $\frac{MP}{2} = \frac{100}{2} = 50$

Loss = 20%

Cost Price = $50 \times \frac{100}{80} = \frac{125}{2}$

Profit = MP − CP

$= 100 - \frac{125}{2}$

Profit = $\frac{75}{2}$

Profit% = $\frac{75}{2} \times \frac{2}{125} \times 100 = 60\%$

302. (a) According to the question,
C.P. = Rs. 25
S.P. = Rs. 30
Profit = S.P. − C.P.
= 30 − 25 = Rs. 5
P% = $\frac{5}{25} \times 100 = 20\%$

303. (d) Given,
S.P. Rs. 270
Loss = 10%
As we know
→ C.P. × 90% = S.P.
→ C.P. × 9/10 = 270
→ C.P. = Rs. 300
Thus, Cost price of article is Rs. 300

304. (a) According to question,
Total change = $a - b - \frac{ab}{100}$

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

= - 4 [(-) sign shows decrease]

305. (c) According to question,
20% Profit = $\frac{1 \to Profit}{5 \to SP}$
Thus, CP = SP - Profit
CP = 5 − 1 = 4
Actual Profit always count on CP
i.e., Profit % = $\frac{1}{4} \times 100 = 255$

306. (b) According to question,
CP of a book = Rs. 150
Profit = 20%
SP of a book = CP + Profit% × CP
= $150 + \frac{20}{100} \times 150$
= 150 − 30
SP = 150 + 30 = 180

307. (d) According to question,
Cost 7 oranges = Rs. 3
Cost of 1 orange = Rs. 3/7
for 33% gain
→ SP = $\frac{3}{7} \times \frac{133}{100}$ for 100 oranges
→ SP = Rs. 57

308. (d) According to question,
SP of 6 articles = Rs. 1
SP of 1 articles = Rs. 1/6
Loss of 20 % is incurred = 100 − 20 = 80
When 6 articles are sold =
CP of 1 articles = $\frac{1}{6} \times \frac{100}{80}$
to gain 20% = $\frac{1}{6} \times \frac{100}{80} \times \frac{120}{100} = \frac{1}{4}$
Articles should be sold Rs. 1 to gain 20% is = 4

309. (c) According to question,
SP of 12 oranges is = Rs. 60
CP of 12 oranges is = 60 × 100/75 = 80
to gain 25%
SP = $80 + \frac{25}{100} \times 80 = Rs.\ 100$
12 oranges sell for Rs. 100 to gain 25% = 12 organges

310. (b) S.P. of 4 article = Rs. 1
Loss = 4 %
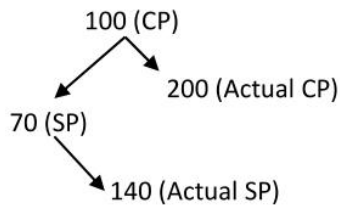C.P. of 4 article $1 \times \frac{100}{96} = \frac{100}{96}$
C.P. of 3 article $\frac{100}{96} \times \frac{3}{4} = \frac{75}{96}$
New S.P. of 3 article = Rs. 1
Profit% = $\frac{1 - \frac{75}{96}}{\frac{75}{96}} \times 100$
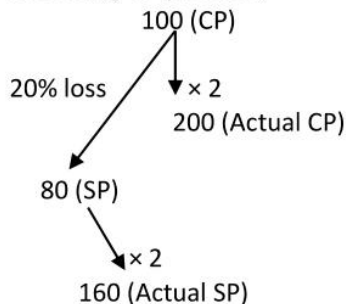= $\frac{21}{75} \times 100 = 28\%$

311. (a) According to question,

```
        100 (CP)

                  200 (Actual CP)
70 (SP)

              140 (Actual SP)
```

CP of 80 ball pens = Rs. 200

CP of 1 ball pens = Rs. 2.5

to gain 30% SP of 1 ball pens $= 2.5 + \frac{30}{100} \times 2.5$

$= 2.5 + 0.75 =$ Rs. 3.25

Ball pens he purchased in Rs. $104 = \frac{104}{3.25}$

= 32 Pens

312. (a) Let CP of the ball pen in = 100

According to question,

```
        100 (CP)

20% loss       ×2
              200 (Actual CP)

80 (SP)

        ×2
        160 (Actual SP)
```

CP of 90 ball pens = Rs. 200

CP of 1 ball pen $= \frac{200}{90} =$ Rs. $\frac{20}{9}$

to gain 20% SP of 1 ball

$= \frac{20}{9} + \frac{20}{100} \times \frac{20}{9}$

$= \frac{20}{9} + \frac{4}{9} = \frac{24}{9}$

$=$ Rs. $\frac{8}{3}$

No. of ball pens purchased for Rs.

$\frac{96}{8} \times 3 = 36 \; ball \; pens$

313. (c) Let SP 1 article = Rs. 1

SP 21 article $= 21 \times 21 =$ Rs. 21

CP of 1 article $= x \times 21 =$ Rs. 21x

According to question,

Loss = CP – SP

3 = 21x – 21

21x = 24

$x = \frac{24}{21} = \frac{8}{7}$

CP of article = Rs. $\frac{8}{7}$

CP of 21 articles $= \frac{8}{7} \times 21 = Rs. \; 24$

Loss = CP - SP = 24 – 21 = 3

Loss% $= \frac{3}{24} \times 100 = 12\frac{1}{2}\%$

314. (b) Let SP of 1 chair = Rs. 1

SP of 250 chairs = Rs. 250

CP of 1 chair = Rs. x

CP of 250 chair = x × 250 = 250x

According to question,

Gain = SP – CP

50 = 250 – 250x

250x = 200

$x = \frac{200}{250} = \frac{4}{5}$

CP of 1 chair = Rs. $\frac{4}{5}$

CP of 250 chair = Rs. 250

Gain% $= \frac{50}{200} \times 100 = 25\%$

315. (c) Let SP of 1 oranges = Rs. 1

SP of 36 oranges = Rs. 36

CP of 1 orange = Rs. x

CP of 36 oranges = Rs. 36x

According to question,

Loss = CP - SP

4 = 36x – 36

36x = 40

$x = \frac{40}{36} = \frac{10}{9}$

CP of 1 oranges $= \frac{10}{9}$

CP of 36 oranges $= \frac{10}{9} \times 36 = Rs. \; 40$

$Loss\% = \frac{4}{40} \times 100 = 10\%$

316. (b) According to the question,

Thus, CP of 4 bananas is = Rs. 1

Thus, CP of 1 bananas = Rs. $\frac{1}{4}$

→ For making

$33\frac{1}{3}\% \; profit \; SP \; of \; banana \; will \; be =$

$\frac{1}{4} 1\frac{4}{3} = Rs. \frac{1}{3}$

→ Therefore 3 bananas should be sold in Rs. 1

317. (b) SP of 1 potatoes = Rs. 63/12 = Rs. 21/4

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

$CP \times \frac{105}{100} = \frac{21}{4} = Rs. \; 5$

gain or loss percent by selling 50 kg of the same potatoes for Rs. 247.50

CP of 50 kg potatoes = 50 × 5 = Rs. 250

Loss = 250 – 247.50 = Rs. 2.50

Loss% $= \frac{2.50}{250} \times 100 = 1\%$

318. (a) Let CP of a watch = Rs. x

According to question,

Profit = SP – CP

4x = 14 × 450 – 14x

18x = 14 × 450

x $= \frac{14 \times 450}{18} = 350$

CP of a watch = Rs. 350

319. (c) According to question,

CP = 30 × 9.50 + 30 × 8.5

= 30 (9.5 + 8.5)

= 30 × 18 = Rs. 540

SP = 60 × 8.90

Rs. = 534

Loss = CP − SP

= 540 − 534 = Rs. 6

320. (b) According to question,

CP of 12 articles = Rs. 12

CP of 1 articles = Rs. 1

SP of 1 article = Rs. 1.25

Profit = SP − CP

Profit = Rs. (1.25 - 1) = 0.25

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

$= \frac{0.25}{1} \times 100 = 25\%$

321. (a) Given, CP of 10 kg, apples = 405

But 1 kg rotten

thus, remaining = 9 kg apple

thus, CP of 1 kg apple

= 4052/9 = 45

To gain 10% of 45 = 4.5

SP = 45 + 4.5 = Rs. 49.5

322. (a) According to question,

SP of 12 = Rs. 1800

SP = CP + Profit

12 CP + 3 CP = Rs. 1800 (as gain is 3 CP)

15 CP = 1800

CP $= \frac{1800}{15} \rightarrow CP = Rs.$ 120

323. (a) According to question,

CP of 200 book = 12000

CP of 1 book $= \frac{12000}{200} = Rs.$ 60

To get 20 book free

Profit = 20 × 60 = 1200

i.e. 10% of Rs. 12000

→ 10%

324. (c) According to question,

Reduction in S.T. $= \frac{7}{2} - \frac{10}{3} = \frac{21-20}{6}$

$= \frac{1}{6}\% = \frac{1}{600}$

Thus, Reduction in price marked at 8400

$= 8400 \times \frac{1}{600} = 14$

325. (d) In such type of pattern based question adopt option approach,

1st→ Check largest value of CP

2nd. → Check smallest value of CP

Mark the answer which is greatest.

Option (d) 1st → $\frac{29}{60} \times 100 = 48.33$

Option (a) 2nd. → $\frac{17}{36} \times 100 = 47.22$ *(wrong)*

326. (a) According to question,

CP = 1200

Repair = 200

Total CP = Rs. 1400

SP = Rs. 1680

Profit = 280

Profit% $= \frac{280}{1400} \times 100 = 20\%$

327. (d) According to Question,

CP of 2 dozen bananas (24 bananas) is = Rs. 32

SP of 1 dozen bananas (12 bananas) = Rs. 12

SP of 18 bananas is = Rs. 18

Thus, Now shopkeeper reduced to the rate Rs. 4/ dozen

Now, SP of 1 dozen bananas is Rs. 4

SP of 6 bananas is Rs. 2

Thus SP of total 24 bananas is Rs. = 18 + 2 = 20

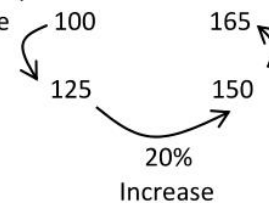Loss = CP - SP

= 32 − 20 = 12

Loss% $= \frac{12}{32} \times 100 = 37.5\%$

328. (c) According to question,

Passing through 3 hands rises on the whole by 65% mean

100   65% increase   165

According to question,

25% increase 　100　　　　165

　　　　　　125　　　　150

　　　　　　　20%

　　　　　　Increase

Thus 3rd earned profit is 10%

329. (d) According to question,

CP of 1 cup = Rs. 10

CP of 100 cups = 10 × 100 = Rs. 1000

Now 20 cups are broke means = Now 20 cups are broken means = 100 - 20 = 80 cups

SP of 1 cup is = Rs. 11

SP of 18 cups are = 11 × 80 = Rs. 880

thus, Loss = CP − SP

= 1000 − 880 = 120

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

$= \frac{120}{1000} \times 100 = 125$

330. (b) Let the original price = x per dozen

New price = $(x - 4)$ per dozens

New numbers of pins = 48/x dozens

New members of pins = $\frac{48}{x - 4}$ dozens

According to question,

$$\frac{48}{x - 4} - \frac{48}{x} = 1$$

$$8\left[\frac{x - x + 4}{x(x - 1)}\right] = 1$$

$48 \times 4 = x(x - 4)$

$x^2 - 4x = 192$

$x^2 - 4x - 192 = 0$

$x^2 - 16x + 12x - 192 = 0$

$x(x - 16) + 12(x - 16) = 0$

$(x - 16)(x - 12 = 0$

$x = 16, -12$

Thus, Original price = Rs. 16

New price = Rs. (16 - 4) = Rs. 12

Alternative:

Take help from option

Option (b) = Rs. 12 (reduction Price)

Thus, Original Price = 12 + 4 = 16

Original Price   Reduced Price

48/16 = 3 dozens   48/12 = 4 dozens Pin

1 dozens increase (Satisfied the question)

Cost of Pins per dozen after reduction

= Rs. 12

331. (d) According to question,

1st Middleman →   5   20% profit   6

2nd Middleman →   5   20% profit   6

3rd Middleman →   5   20% profit   6

           125   216

                  × 1600

× 1600

[200000]

345600

332. (d) According to question

Loss = 20% SP

i.e. Loss/SP = 1/5

Thus, CP = SP + Loss = 5 + 1 = 6

Thus, Loss % = $\frac{1}{6} \times 100 = \frac{50}{3}$%

333. (c) According to question,

A   B

20%   - 10%

?

12   :   18

2   +   3 = 5

↓ × 1000   ↓ × 1000

2000   5000

1 unit = 1000

CP of A = Rs. 2000
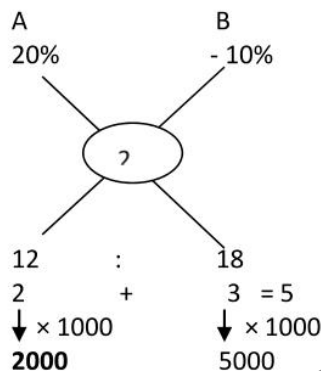
334. (a) According to question,

Given,   Loss

CP - 9400 = x .... (i)

10600 - CP = 2x .... (ii)

Put the value of eq. (i) in eq. (ii)

10600 - CP = 2CP - 18800

3 CP = 29400

CP = $\frac{29400}{3}$ = 9800

335. (c) According to question,

SP of 20 apples = Rs. 100

gained = 20%

Thus, CP of 20 apples = $100 \times \frac{100}{120} = \frac{250}{3}$

CP of 1 apples = $\frac{250}{3 \times 20} = \frac{25}{6}$

In 100 Rs. he buy = $\frac{100}{25} \times 6 = 24\ apples$

336. (d) According to question,

CP of 1 Pen = Rs. 50

CP of 50 pen = Rs. 50 × 50 = Rs. 2500

to gain 10% overall sold a = 2750

Now, 40 pen sold at 5% loss

Thus, SP of 40 pens = 40 × 47.5 = Rs. 1900

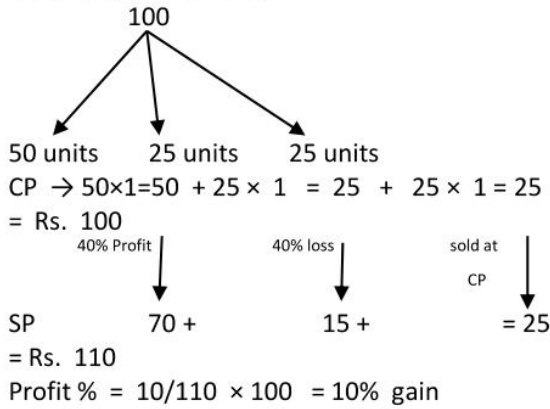Remaining 10 pens sold to get overall profit of 10% at Rs. 850

SP of 1 = $\frac{850}{10} = Rs.\ 85$

CP of 1 pen = Rs. 50

Profit % of remaining pen = $\frac{35}{50} \times 100 = 70\%$

337. (c) Let total number of cloth = 100 units

CP of 1 unit cloth = Rs. 1
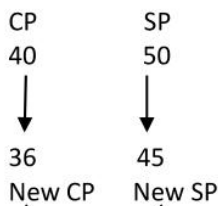CP of 100 units cloth are = 1 × 100 = Rs. 100
According to question,

100

50 units   25 units   25 units
CP → 50×1=50 + 25 × 1 = 25 + 25 × 1 = 25
= Rs. 100

| 40% Profit | 40% loss | sold at CP |

SP   70 +   15 +   = 25
= Rs. 110
Profit % = 10/110 × 100 = 10% gain

338. (b) Given:
20% Profit on SP means = $\frac{1}{5}$
20% Profit → $\frac{10 \to Profit}{50-SP}$
Thus, CP = SP - Profit
CP = 50 − 10
= 40

CP   SP
40   50

36   45
New CP   New SP

9 units Profit
Profit% = $\frac{Profit}{CP} \times 100$
= $\frac{9}{36} \times 100$ = 25% *Ans.*

339. (c) Let cost price = Rs. 100
According to question,
CP   SP   Profit
100 → 113   13

×7000
791000 (Given SP)
113 units = 791000
1 unit = $\frac{791000}{113}$ = Rs. 7000
13 units = 7000 × 13 = Rs. 91000

340. (c) Let CP of a car is = 100
According to question,
100 (CP) $\xrightarrow{20\% loss}$ 80 (SP)
Given : 80 units = 64000
1 unit = 64000/80 = 800

100 units = 800 × 100 = 80000
CP of the Car = Rs. 80000

341. (a) According to question,
CP of Radio = Rs. 225
Overhead expenses = Rs. 15
Total expenditure = 225 + 15 = Rs. 240
SP of the Radio = Rs. 300
Profit %= 300 − 240 = Rs. 60
Profit% = $\frac{60}{240} \times 100$ = 255

342. (d) According to question,
CP of 1 cycle = Rs. 500
CP of cycle = 500 × 10 = Rs. 5000
Spent on repair = Rs. 2000
Now,
Total CP = 5000 + 2000 = Rs. 7000
SP of 5 cycle = 750 × 5 = Rs. 3750
SP of 5 cycle = 550 × 5 = Rs. 2750
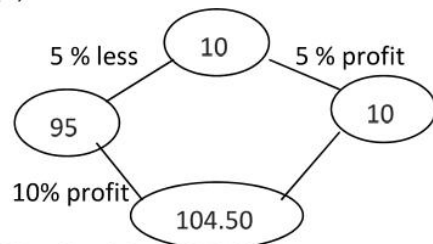Thus, SP of 10 cycle
= Rs. 3750 + 2750 = 6500
Loss = CP − SP
Loss = 7000 − 6500 = 500
Loss% = $\frac{500}{7000} \times 100$ = $\frac{50}{7}$
= $7\frac{1}{7}\%$

343. (d) Let the C.P. = Rs. 100

5 % less   10   5 % profit
95   10
10% profit   104.50

0.5 units → Rs. 2
100 units → $\frac{2 \times 100}{0.5}$ = Rs. 400

344. (d) According to question,
Pen × Profit% = Total Profit
50   × 10   = 500
100 × 17.5   = 1750
Total   150 pens × 15 = 2250
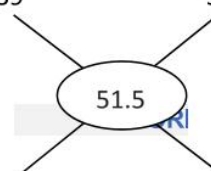Thus, Remaining profit % of pen = 17.5%

345. (c) According to question,
Watch   Wall Clock
(10% Profit)   (15% Profit)
39   58.5

51.5

7   12.5
14   +   25   39 units
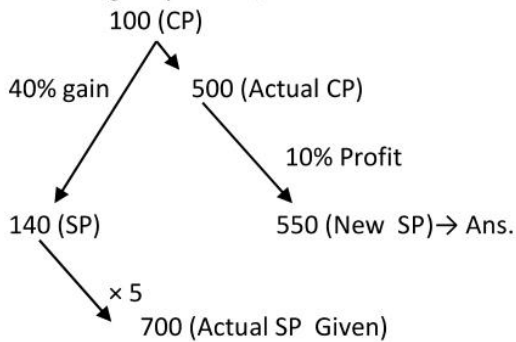
Diff. 11 units

39 units = 390
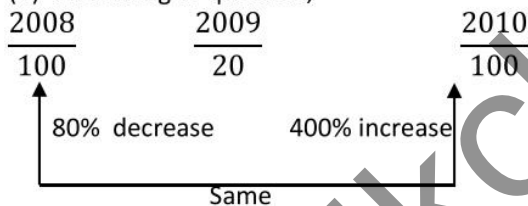
1 unit = $\frac{390}{39}$ = 10

11 units = 10 × 11 = Rs. 110

346. (b) Let the CP of the article = 100
According to question,

100 (CP)

40% gain ↗ 500 (Actual CP)

10% Profit

140 (SP)   550 (New SP)→ Ans.

× 5

700 (Actual SP Given)

347. (b) According to question,

$\frac{2008}{100}$ $\frac{2009}{20}$ $\frac{2010}{100}$

80% decrease   400% increase

Same

348. (b) According to question,
CP of Radio = Rs. 600

5% of CP is charged = $\frac{5}{100} \times 600$
= Rs. 30

Thus, Total CP = 600 + 30 = Rs. 630

to gain 15% then SP = $630 + \frac{15}{100} \times 630$ =
724.5

349. (b) Account to question,

	TV	Radio	Total
CP	2000	750	2750
	↓ 20% profit	↓ 5% loss	↓ 362.5 gain
	2400	712.5	3112.5

Gain = Rs. 362.5

350. (a) Let CP of 1 bucket = Rs.x
CP of 1 mug = Rs. y
According to question,
$_{5\times}$ (8x + 5y) = 92 $_{\times 5}$ = 460
$_{8\times}$ (5x + 8y) = 77 $_{\times 8}$ = 616

40x + 25y = 460
40x + 64y = 616
(-) (-)   (-)
          39y   = 156
          y = $\frac{156}{39}$ = 4
Put y in eq. (i)
Thus, 8x + 20 = 92
8x = 72,   x = 9
Thus, Cost of 2 mugs and 3 buckets
2 × 4 + 3 × 9
8 + 27 = Rs. 35

351. (c) According to question,

Horse   Carriage
10%   5%

1
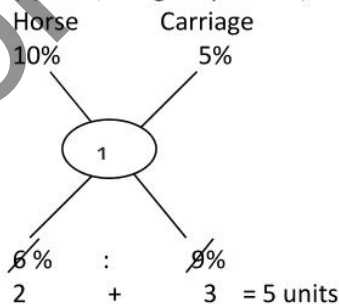
6%   :   9%
2   +   3   = 5 units
5 units = 40000
1 unit = $\frac{40000}{5}$ = 8000
2 units = 2 × 8000 = 16000
CP of Horse = Rs. 16000

352. (a)

353. (b) According to question,
3C + 8G = Rs. 47200 .... (i)
8C + 3G = 47200 + 53000
 =Rs. 100200 .... (ii)
Add equa. (i) and (ii)
11C + 11G = 147400
C + G = 13400 .... (iii)
Subtract eq. (i) and (ii)
- 5C + 5G = - 53 000
C − G = 10600 .... (iv)
Solve eq (iii) & (iv)
C = 12000
G = 1400

Thus, Cost of Cow = Rs. 12000

354. (b) Let the number of bad apples = x

C.P. of (140 - x) apples = Rs. 600

SP of (240 - x) apples = Rs. 3.5 × (240 - x)3.

According to the question,

→ 3.5 × (240 − x) - 600 = 198

x = 12

→ x% $= \frac{12}{240} \times 100\% = 5\%$

Alternate:

SP of apples = 600 + 198 = 798

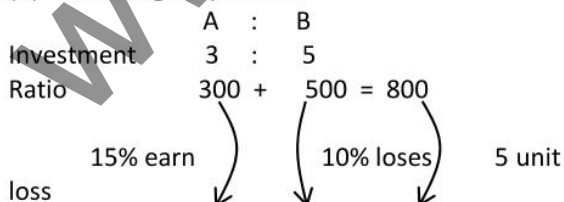No. of apples sold $= \frac{798}{3.5} = 228$

% of apples thrown =

$\frac{240-228}{240}$ $\frac{12}{240} \times 100 = 5\%$

355. (c) According to the question,

40 dozen bananas means = 480 bananas

30 Bananas rotten = 480 − 30 = 450

Bananas remaining = 450

Thus, C.P. of 40 dozen Bananas = Rs. 250

to make 20% S.P. of 450 bananas

$= 250 \times \frac{120}{100} = Rs. 300$

Thus, S.P. of 1 bananas $= \frac{300}{450} = Rs. \frac{2}{3}$

S.P. of dozen bananas $= \frac{2}{3} \times 12$

$= Rs. 8$

356. (b) S.P. of chair = Rs. 600

C.P. of chair = Rs. x

ATQ.

120% of x = Rs. 600

x $= 600 \times \frac{100}{120} =$

$x = 500$

357. (d) According to question

         A : B
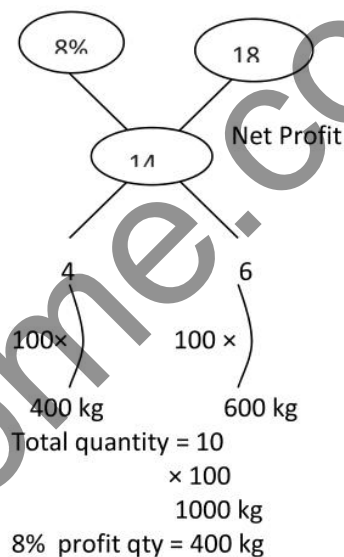
Investment   3 : 5

Ratio   300 + 500 = 800

     15% earn   10% loses)   5 unit

loss

        345 + 450 = 795

loss% $= \frac{5}{800} \times 100 = -\frac{5}{8}\%$

358. (c) According to question,
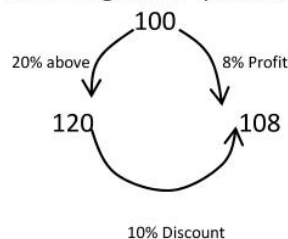
                A   B   Total

CP →   5 + x   = 5 + x

           ↓ 20% Profit

SP →   6 + 6   = 12

5 + x = 12 Because there is no profit no loss x = 7

Then loss is 7 − 6 = 1

Thus, Loss% $= \frac{1}{7} \times 100 = 14\frac{2}{7}\%$

359. (c)

Total quantity = 10

             × 100

           1000 kg

8% profit qty = 400 kg

360. (a) Let C.P of the articles = 100

According to the question

Profit % = 8