7

Discount

EXERCISE 7A

For SSC GD & MTS Exams

1. An article, whose list price was ₹ 720, was subject to two successive discounts of 20% and 10% What is the amount (in ₹) of discount that a customer would get while purchasing the article?

SSC MTS 2/11/2021 (Shift-3)]

(a) 198 **(b)** 190.8

(c) 201.6 **(d)** 216

2. After allowing a discount of 10% on the marked price of an article, it is sold for ₹450. Had the discount not been given, the profit would have been 25% What id the 50% of the cost price (in ₹) of the article?

SSC MTC 2/11/2021 (Shift-2)

(a) 150 **(b)** 200

(c) 175 **(d)** 250

3. During festivals, a banner on a shop displays, 'Pay for 3 and get 5. The discount percentage offered is:

SSC MTC 02/11/2021 (Shift-1)

(a) $166\frac{2}{3}\%$ **(b)** 60%

(c) 40% **(d)** $66\frac{2}{3}\%$

4. A shopkeeper earns 25% profit, if he sells an article at 10% discount on the market price ₹ 2,500. Find his profit. **SSC MTS 02/11/2021 (Shift-1)**

(a) ₹450 **(b)** ₹400

(c) ₹375 **(d)** ₹350

5. A dealer bought an article at 10% discount on its marked price, and sold it at a price which was 15% above the marked price. The gain percent (correct to the nearest integer) is:

SSC MTS 27/10/2021 (Shift-2)

(a) 33% **(b)** 35%

(c) 25% **(d)** 28%

6. The cost price of an article is ₹ 214. After allowing three successive discounts of 15%, 20% and 10% on its list price, it is sold for ₹153. If it is sold at the list price, then the profit (in ₹) will be;

SSC MTS 27/10/2021 (Shift-2)

(a) 49 **(b)** 36

(c) 39 **(d)** 45

7. A bookseller buys books at a discount of 25% on the marked price. How much percent discount should he offer so as to gain 20% on the sale?

SSC MTS 27/10/2021 (Shift-1)

(a) 25% **(b)** 20%

(c) 30% **(d)** 10%

8. A single discount equivalent to three successive discount of 10%, 15% and 18% is:

SSC MTS 22/10/2021 (Shift-3)

(a) 35.36% **(b)** 34.17%

(c) 37.27% **(d)** 32.68%

9. A shopkeeper allows 10% discount on the marked price of an article and still gains 17%. If he gives 15% discount on the marked price, then his profit percent is: **SSC MTS 22/08/2019 (Shift-2)**

(a) 12 **(b)** 10.5

(c) 12.5 **(d)** 10

10. When an article is sold at a discount of 40% on its marked price, the profit is 25%. What is the ratio of the cost price to the marked price of the article?

SSC MTS 22/08/2019 (Shift-1)

(a) 12 : 25 **(b)** 4 : 5

(c) 5 : 8 **(d)** 8 : 13

11. The marked price of an article was 42% above its cost price. If after selling the article, a profit of 20.7% occurs, then find the discount percentage on the marked price of this article? **SSC MTS 21/08/2019 (Shift-3)**

(a) 15.6 **(b)** 16

(c) 15 **(d)** 14.3

12. A person buys an article for ₹ 16. If he had to buy a dozen of articles, then he would have to pay a total amount of ₹ 160. What would be the discount percentage (correct to the nearest integer) on buying a dozen of articles? **SSC MTS 21/08/2019 (Shift-1)**

(a) 10% **(b)** 17%

(c) 12% **(d)** 22%

13. Marked price of an article is ₹ 1500. If $16\frac{2}{3}\%$ discount is given, then what is the selling price?

SSC MTS 19/08/2019 (Shift-1)

(a) ₹ 1000 **(b)** ₹ 1300
(c) ₹ 1250 **(d)** ₹ 1150

14. A person bought a shirt marked ₹ 1000 and a pair of trousers marked ₹ 2000. The discounts offered on the shirt and the pair of trousers were 20% and 50%. Overall, How much discount he was offered?
SSC MTS 16/08/2019 (Shift-3)

(a) 25% **(b)** 43%
(c) 45% **(d)** 60%

15. A vegetable seller bought 10 dozens of potatoes for ₹ 120, another 5 dozens for ₹ 50 and another 5 dozens for ₹ 30. He sold the potatoes for ₹ 9 a dozen. How much discount did he overall offer?
SSC MTS 16/08/2019 (Shift-1)

(a) 11.11% **(b)** 5%
(c) 7.5% **(d)** 10%

16. Marked price of a shirt is ₹ 2000. If shopkeeper declares successive discount on shirt of 10% & 25%, the selling price (in ₹) of shirt is:
SSC MTS 14/08/2019 (Shift-3)

(a) 1350 **(b)** 1250
(c) 1650 **(d)** 1300

17. A customer was offered a discount of 40% on a piece of cloth. On insisting further, the shopkeeper agreed to a further discount of 20% on above. What was the effective discount offered to the customer?
SSC MTS 14/08/2019 (Shift-2)

(a) 60% **(b)** 48%
(c) 52% **(d)** 54%

18. After allowing a discount of 12.5% shopkeeper makes a profit of 25% on a bag. At what percent higher than the cost price did he mark the bag? (correct to nearest integer): **SSC MTS 13/08/2019 (Shift-2)**

(a) 35% **(b)** 43%
(c) 41% **(d)** 38%

19. A buys an article at ₹ 1800 and sells it after giving two successive discounts of 10% and 20%. What will be the selling price (in ₹) of the article?
SSC MTS 09/08/2019 (Shift-1)

(a) 1296 **(b)** 1668
(c) 1728 **(d)** 1336

20. Three successive discounts of 20%, 20% and 30% are offered on an article. If the marked price of the article is ₹ 750, then what will be selling price?
SSC MTS 08/08/2019 (Shift-2)

(a) ₹ 326 **(b)** ₹ 375
(c) ₹ 348 **(d)** ₹ 336

21. After offering a discount of 20% on an article, a trader earned a profit of 20%. If the cost price is ₹ 300, then what will be the selling price of the article after offering a discount of 25%?
SSC MTS 07/08/2019 (Shift-3)

(a) ₹ 352.5 **(b)** ₹ 375.5
(c) ₹ 432.5 **(d)** ₹ 337.5

22. A man sold a watch at a discount of 60% for Rs 1560. What is the marked price of the watch?
SSC MTS 07/08/2019 (Shift-1)

(a) ₹ 3900 **(b)** ₹ 3600
(c) ₹ 3300 **(d)** ₹ 3700

23. The marked price of an article is ₹ 2800. The selling price of the article is ₹ 2408. Find the discount percentage. **SSC MTS 06/08/2019 (Shift-2)**

(a) 18% **(b)** 24%
(c) 16% **(d)** 14%

24. Marked price and cost price of an article are in ratio 5 : 4. If the profit earned by selling the article is 12.5%, then what is the discount percentage?
SSC MTS 05/08/2019 (Shift-1)

(a) 12.5 **(b)** 15
(c) 8 **(d)** 10

SOLUTIONS 7A

1. (c) $20\% = \frac{1}{5} = \frac{4}{5\ \text{MRP}}$,

$$10\% = \frac{1}{10} = \frac{9}{10\ \text{MRP}}$$

MRP				SP
5		4	→	9
10	←	10		9
50		40		36

D = 14

$$\text{Discount} = \frac{720 \times 14}{50} = 201.6\ ₹$$

2. (b) $10\% = \frac{1}{10}$

MRP	SP
10	9 = 450
↓ × 50	1 = 50
500 ₹	

$$25\% = \frac{1}{4}$$

CP	SP = MRP
4	5 = 500
↓ × 100	1 = 100
₹ 400	

$$50\% \text{ of CP} = 400 \times \frac{1}{2} = ₹\,200$$

3. (c) Discount % $= \frac{2}{5} \times 100 = 40\%$

4. (a) $25\% = \frac{1}{4} = \frac{5}{4} \rightarrow \text{SP}$

$\frac{}{4} \rightarrow \text{CP}$

$10\% = \frac{1}{10} = \frac{9}{10} \rightarrow \text{SP}$

$\frac{}{10} \rightarrow \text{MRP}$

MRP		SP		CP
10		9	→	9
5	←	5		4
2500 = 50		45		36
1 = 50				

Profit = 9 × 50 = ₹ 450

5. (d) $10\% = \frac{1}{10} = \frac{9}{10} \rightarrow \text{CP}$

$\frac{}{10} \rightarrow \text{MRP}$

$15\% = \frac{3}{20} = \frac{23}{20} \rightarrow \text{SP}$

$\frac{}{20} \rightarrow \text{MRP}$

SP		MRP		CP
10	←	10		9
23		20	→	20
230		200		180

$$\text{Profit\%} = \frac{50}{180} \times 100 = 27.77$$

$$= 28\%$$

6. (b) $15\% = \frac{3}{20} = \frac{17}{20}$

$$20\% = \frac{1}{5} = \frac{4}{5}$$

$$10\% = \frac{1}{10} = \frac{9}{10}$$

MRP				SP
20	17	→	17	→ 17
5	← 5		4	→ 4
10	← 10	←	10	9
1000	850		680	612 = ₹ 153

$$1 = \frac{153}{612} = 0.25$$

MRP = 0.25 × 1000

= ₹ 153

Profit = ₹ 250 –214 = 36

7. (d) $25\% = \frac{1}{4} = \frac{3}{4} \rightarrow \text{CP}$

$\frac{}{4} \rightarrow \text{MRP}$

$20\% = \frac{1}{5} = \frac{6}{5} \rightarrow \text{SP}$

$\frac{}{5} \rightarrow \text{CP}$

MRP		CP		SP
4		3	→	3
5	←	5		6
20		15		18

Discount % $= \frac{2}{20} \times 100 = 10\%$

8. (c) $10\% = \frac{1}{10} = \frac{9}{10}$

$15\% = \frac{3}{20} = \frac{17}{20}$, $18\% = \frac{9}{50} = \frac{41}{50}$

MRP	SP
10	9
20	17
50	41
10000	6273

Discount % $= \frac{3727}{10000} \times 100 = 37.27\%$

9. (b) $10\% = \frac{1}{10} = \frac{9}{10} \rightarrow \text{SP}$

$\frac{}{10} \rightarrow \text{MRP}$

$17\% = \frac{11}{100} = \frac{11}{100} \rightarrow \text{SP}$

$\frac{}{100} \rightarrow \text{CP}$

New SP	MRP		SP		CP
	10		9	→	9
	117	←	117		100
	1170 × 2		1053 × 2		900 × 2
↓ 17 × 117	20 × 117				
1989	2340		2106		1800

Profit % $= \frac{189}{1800} \times 100 = 10.5\%$

10. (a) $40\% = \frac{2}{5} = \frac{3}{5} \rightarrow \text{SP}$

$\frac{}{5} \rightarrow \text{MRP}$

$25\% = \frac{1}{4} = \frac{5}{4} \rightarrow \text{SP}$

$\frac{}{4} \rightarrow \text{CP}$

MRP		SP		CP
5		3	→	3
5	←	5		4
25		15		12

CP : MRP = 12:25

11. (c) $42\% = \frac{21}{50} = \frac{71}{50} \rightarrow \text{MRP}$
$\rightarrow \text{CP}$

$$20.7\% = \frac{20.7}{100} = \frac{120.7}{100} \rightarrow \text{SP}$$
$$\rightarrow \text{CP}$$

SP		CP		MRP
50	←	50		71
120.7		100	→	100
6035		5000		7100

$$\text{D\%} = \frac{1065}{7100} \times 100 = 15\%$$

12. (b) Price of a dozen of articles
$= ₹\ 12 \times 16 = ₹\ 192$
$\text{CP} = 160$
$$\text{Discount\%} = \frac{32}{192} \times 100 = 16.84 = 17\%$$

13. (c) $16\frac{2}{30} = \frac{1}{6} = \frac{5}{6} \rightarrow \text{SP}$
$\rightarrow \text{MRP}$

MRP	SP
1500 = 6	5
1 = 260	× 250
	₹ 1250

14. (b) $20\% = \frac{1}{5} = \frac{4}{5} \rightarrow \text{CP}$
$\rightarrow \text{MRP}$

$50\% = \frac{1}{2} \rightarrow \text{CP}$
$\rightarrow \text{MRP}$

CP	MRP	CP	MRP
1000 = 4	5	2000 = 1	2
1 = 250	× 250		× 200
Shirt →	1250	trouser →	₹ 4000

$\text{Total CP} = 1000 + 2000 = ₹\ 3000$
$\text{Total MRP} = 1250 + 4000 = ₹\ 5250$
$$\text{Overall Discount\%} = \frac{2250}{5250} \times 100 = 42.85\%$$
$= 43\%$

15. (d) 10 dozens = ₹ 120
5 dozens = ₹ 50
5 dozens = ₹ 30
20 dozens = ₹ 200 → CP
1 dozens = ₹ 9
20 dozens = 9 × 20 = 180 → SP
$$\text{Discount\%} = \frac{20}{200} \times 100 = 10\%$$

16. (a) $10\% = \frac{1}{10} = \frac{9}{10} \rightarrow \text{SP}$
$\rightarrow \text{MRP}$

$$25\% = \frac{1}{4} = \frac{3}{4} \rightarrow \text{SP}$$
$$\rightarrow \text{MRP}$$

MRP	SP
10	9
4	3
2000 × 40	27
1 = 50	
	₹ 1350

17. (c) $40\% = \frac{2}{5} = \frac{3}{5} \rightarrow \text{SP}$
$\rightarrow \text{MRP}$

$20\% = \frac{1}{5} = \frac{4}{5} \rightarrow \text{SP}$
$\rightarrow \text{MRP}$

MRP	SP
5	3
5	4
25	12

$$\text{Discount\%} = \frac{13}{25} \times 100 = 52\%$$

18. (b) $12.5\% = \frac{1}{8} = \frac{7}{8} \rightarrow \text{SP}$
$\rightarrow \text{MRP}$

$25\% = \frac{1}{4} = \frac{5}{4} \rightarrow \text{SP}$
$\rightarrow \text{CP}$

MRP		SP		CP
8		7	→	7
5	←	5		4
40		35		28

$$\text{Required\%} = \frac{12}{28} \times 100 = 42.85$$
$= 43\%$

19. (a) $10\% = \frac{1}{10} = \frac{9}{10} \rightarrow \text{SP}$
$\rightarrow \text{MRP}$

$$20\% = \frac{1}{5} = \frac{4}{5} \rightarrow \text{SP}$$
$$\rightarrow \text{MRP}$$

MRP	SP	
10	9	
5	4	
1800 = 50	36	₹ 20
1 = 36	× 36	
	₹ 1296	

20. (d)

MRP	SP
5	4
5	4
10	7

750 = 250 → 112

1 = 3 → × 3 ↓

₹ 336

21. (d)

MRP		SP		CP
5		4	→	4
6	←	6		5
30		24		20 = ₹ 300

× 15 ↓ 1 = 15

₹ 450

$$\text{SP after 25\% discount} = 450 \times \frac{3}{4}$$

$$= ₹\ 337.50$$

22. (a)

MRP	SP
5	2 = ₹ 1560
↓	1 = 780
₹ 3900	

23. (d) $\text{Discount\%} = \frac{392}{2800} \times 100 = 14\%$

24. (d)

MRP		CP		SP
5		4	→	4
6	←	8		9
40		32		36

$$\text{Discount\%} = \frac{4}{40} \times 100 = 10\%$$

EXERCISE 7B

For SSC CHSL Exam

1. A single discount equivalent to two successive discount of 20% and 10% on the marked price of an article is? **SSC CHSL 01/06/2022 (Shift-3)**

   (a) 18% **(b)** 28%

   (c) 24% **(d)** 22%

2. A bought a toy at a discount of 35%. If he paid ₹ 975, then find the marked price of the toy. **SSC CHSL 01/06/2022 (Shift-2)**

   (a) ₹ 1,550 **(b)** ₹ 1,650

   (c) ₹ 1,600 **(d)** ₹ 1,500

3. Under a sale offer for an item, Mahesh was offered 24% discount on the part of the marked price that was paid in cash, but was charged 1.5% on the part of the marked price paid through a credit card. If Mahesh paid 40% of the marked price in 5 cash and his total final payment was ₹ 6,391, what was the marked price of the item? **SSC CHSL 01/06/2022 (Shift-2)**

   (a) ₹ 7,200 **(b)** ₹ 6,900

   (c) ₹ 7,050 **(d)** ₹ 7,000

4. Under a sale offer, Tanvir was offered a 32% discount on the part of the marked price that was paid in cash, but had to add 1.2% on the part of the marked price paid through a credit card. If Tanvir paid 75% of the marked price in cash and the rest through a credit card, what percentage of the marked price was his total final payment? **SSC CHSL 31/05/2022 (Shift-3)**

   (a) 76.6% **(b)** 75.9%

   (c) 76.1% **(d)** 76.3%

5. The marked price of a mobile phone is ₹ 18,000. It is sold with two successive discounts of 25% and 4%. An additional discount of 5% is offered for cash payment. The selling price of the mobile on cash payment is: **SSC CHSL 31/05/2022 (Shift-2)**

   (a) ₹ 12,312 **(b)** ₹ 12,123

   (c) ₹ 12,132 **(d)** ₹ 12,231

6. A 25% profit is made when a discount of 25% is given on the marked price of an item. When the discount is 35%, what will be the profit? (Give your answer correct to the nearest whole number.) **SSC CHSL 31/05/2022 (Shift-1)**

   (a) 13% **(b)** 8%

   (c) 9% **(d)** 11%

7. The marked price of a refrigerator is ₹ 60,000. A shopkeeper offers a flat discount of ₹ 12,000 on full cash payment. Further he offers an extra discount of 5% on the marked price to his regular customers. How much does a regular customer have to pay for the refrigerator? **SSC CHSL 31/05/2022 (Shift-1)**

   (a) ₹ 45,000 **(b)** ₹ 48,000

   (c) ₹ 44,000 **(d)** ₹ 47,000

8. The marked price of a shirt is ₹ 2,150. Let two successive discounts offered by the store be 10% and 'x%'. If the selling price of the shirt is ₹ 1,505, then calculate the value of 'x'. [Give your answer correct to two decimal places.] **SSC CHSL 30/05/2022 (Shift-3)**

   (a) 24.44% **(b)** 24.24%

   (c) 22.22% **(d)** 22.42%

9. A book is sold for ₹ 1,554 by allowing a discount of 26% on its marked price. Find the marked price of the book: **SSC CHSL 30/05/2022 (Shift-3)**

(a) ₹ 1,854 **(b)** ₹ 2,100

(c) ₹ 1,750 **(d)** ₹ 2,000

10. If a company gives a discount of 20% on the marked price of an article and gains 20% on that particular article, then at what percentage above the cost price did the company mark its goods?

SSC CHSL 30/05/2022 (Shift-2)

(a) 50% **(b)** 20%

(c) 40% **(d)** 25%

11. A shoe manufacturing company offers 3 types of discount schemes to its customers: (*i*) 20% and 12% (*ii*) 25% and 5% (*iii*) 30% and 3% at different stages of sales. Find the best scheme for the customer.

SSC CHSL 30/05/2022 (Shift-1)

(a) Only Scheme (*iii*) **(b)** Only Scheme (*i*)

(c) Only Scheme (*ii*) **(d)** Both Scheme (*i*) and (*ii*)

12. Anil offers his customer a discount of 15% on a T-shirt and he still makes a profit of 25%. What is the actual cost of the T-shirt marked ₹ 500.?

SSC MTS 21/08/2019 (Shift-1)

(a) ₹ 340 **(b)** ₹ 330

(c) ₹ 350 **(d)** ₹ 360

13. A shopkeeper makes a profit of 12.5% after allowing a discount of 10% on the marked price of an article. Find his profit percentage if the article is old at the marked price, allowing no discount.

SSC CHSL 27/05/2022 (Shift-3)

(a) 25% **(b)** 30%

(c) 22.5% **(d)** 27%

14. The price of a cell phone is ₹ 20,000. On Sundays, the shopkeeper offers a cash discount of ₹ 1,000 on the purchase of the cell phone. Further, if someone purchases it through a credit card, he gives 5% additional discount. If someone is purchasing the cell phone on a Sunday thorough a credit card, then how much does he/she have to pay?

SSC CHSL 27/05/2022 (Shift-2)

(a) ₹ 18,350 **(b)** ₹ 18,900

(c) ₹ 18,050 **(d)** ₹ 18,500

15. The marked price of a mobile phone is ₹ 36,000. A shopkeeper gives a discount of 11% on the marked price. Further, if a customer purchases it through credit card the discount increases by 15%. Pooja purchases it through the credit card. How much does she pay?

SSC CHSL 27/05/2022 (Shift-1)

(a) ₹ 31,000 **(b)** ₹ 32,000

(c) ₹ 30,880 **(d)** ₹ 30,600

16. The marked price of a table is ₹ 3,000, which is 25% above the cost price. It is sold at a discount of 20% on the marked price. What is the profit or loss percent?

SSC CHSL 12/08/2021 (Shift-2)

(a) Loss, 5% **(b)** Profit, 10%

(c) Profit, 15% **(d)** No profit, no loss

17. The marked price of an article is ₹ 1,360. If a shopkeeper sold the article at 15% loss after giving 25% discount, then the cost price of the article is:

SSC CHSL 11/08/2021 (Shift-2)

(a) ₹ 1,200 **(b)** ₹ 1,600

(c) ₹ 1,400 **(d)** ₹ 15,00

18. A marks her goods 25% above the cost price. She sells 25% of the goods at the marked price, 60% at 25% discount and the remaining at 10% discount. What is her overall gain or loss per cent?

SSC CHSL 10/08/2021 (Shift-3)

(a) Gain 15.124% **(b)** Loss 18.175%

(c) Loss 3.125% **(d)** Gain 4.375%

19. The marked price of a juicer mixer is ₹ 5500 and three successive discounts of 40%, 30%, and 20% are given on this marked price. The selling price of the juicer mixer is: **SSC CHSL 10/08/2021 (Shift-2)**

(a) 1835 **(b)** 1868

(c) 1848 **(d)** 1858

20. A dealer allows his customers a discount of 35% and still gains 30%. If the cost price of an article is ₹ 950, then what is its marked price (in ₹)?

SSC CHSL 09/08/2021 (Shift-3)

(a) 1900 **(b)** 1750

(c) 1800 **(d)** 1500

21. A shopkeeper offers successive discounts of 35%, 10% and 6% on every item. At what price (nearest to a rupee) customers can get an item marked for ₹ 1000? **SSC CHSL 09/08/2021 (Shift-2)**

(a) 562 **(b)** 550

(c) 450 **(d)** 645

22. Amit purchased stationery marked for ₹ 8000 at 12% discount and spent ₹ 160 on transportation. He sold the stationery at the marked price. Find his profit percentage. **SSC CHSL 06/08/2021 (Shift-3)**

(a) 10 **(b)** 12

(c) 12.5 **(d)** $11\frac{1}{9}$

23. A customer availed a 10% discount on the purchase of a table and paid ₹ 4950 for it. How much money

would he have saved if he had bargained to get 12% discount?

(a) 110 **(b)** 99

(c) 108.90 **(d)** 660

24. An article is listed at ₹ 5,000 and two successive discounts of 12% and 12% are given on it. How much will the seller gain or lose if he gives a single discount of 24%? **SSC CHSL 05/08/2021 (Shift-3)**

(a) Loss ₹ 72 **(b)** Loss ₹ 64

(c) Profit ₹ 64 **(d)** Profit ₹ 72

25. Two successive discounts of each of x% on the marked price of an article are equal to a single discount of ₹ 350. If the marked price of the article is ₹ 800, then the value of x is: **SSC CHSL 5/08/2021 (Shift-1)**

(a) 27.5% **(b)** 20%

(c) 25% **(d)** 22.5%

26. A tractor is sold after allowing three successive discounts of 10%, 5% and 2%. If the marked price of the tractor is ₹ 4,88,000, find its net selling price.

SSC CHSL 26/05/2022 (Shift-3)

(a) ₹ 5,08,895.2 **(b)** ₹ 4,49,895.06

(c) ₹ 4,18,895.45 **(d)** ₹ 4,08,895.2

27. The marked price of a study table is ₹ 3,200. It will be offered for ₹ 2,448 after two successive discounts. If the first discount is 10%, the second discount is:

SSC CHSL 26/05/2022 (Shift-3)

(a) 13% **(b)** 10%

(c) 15% **(d)** 18%

28. The marked price of a toy was ₹ 4,875. Successive discounts of 28% and 30% were offered on it during a clearance sale. What was the selling price of the toy?

SSC CHSL 26/05/2022 (Shift-2)

(a) ₹ 2,457 **(b)** ₹ 2,047.50

(c) ₹ 2,057.50 **(d)** ₹ 2,467

29. X's salary is increased by 20% and then decreased by 20%. What is the change is salary?

SSC CHSL 26/05/2022 (Shift-1)

(a) 4% decrease **(b)** 4% increase

(c) 2% decrease **(d)** 2% increase

30. After allowing 15% discount, it dealer wishes to sell a machine for ₹ 1,22,700. At what price must the machine be marked? (Consider up to two decimals)

SSC CHSL 26/05/2022 (Shift-1)

(a) ₹ 1,22,352.94 **(b)** ₹ 1,44,352.94

(c) ₹ 1,48,352.94 **(d)** ₹ 1,36,352.94

SOLUTIONS 7B

1. (b)

MRP	SP
5	4
10	9
50	36

$$\text{Discount \%} = \frac{14}{50} \times 100 = 28\%$$

2. (d)

MRP	SP
20	13 = ₹ 975
× 75 ↓	1 = 75
₹ 1500	

3. (d)

MRP	SP
100	76
1.5% ↓	40% ↓
101.5	30.4
× 60% ↓	
60.9	91.3
	⊕

Now, 91.3 = ₹ 6391

$\therefore$ 1 = 70

4. (d)

MRP	SP
100	68
1.2% ↓	75% ↓
101.2	51
×25% ↓	
25.3	76.3
	⊕

$$\text{Required percentage} = \frac{76.3}{100} \times 100 = 76.3\%$$

5. (a)

MRP	SP
4	3
25	24
20	19
₹ 18000 = 2000	1368
1 = 9	× 9 ↓
	₹ 12312

6. (b)

MRP		SP		CP
4		3	→	3
5	←	5		4
20		15		12
20		13		

$$35\% = \frac{7}{20} = \frac{13}{20} \rightarrow \begin{matrix}\text{SP}\\ \text{NP}\end{matrix}$$

$$\text{Profit \%} = \frac{1}{12} \times 100 = 8.33 = 8\%$$

7. (a) MRP Discount

$$60000 \qquad 12000 + 60000 \times \frac{1}{20} = 15000$$

$$\text{SP} = 60000 - 15000 = ₹\ 45000$$

8. (c) MRP Discount SP

$$2150 \qquad 10\% \qquad 2150 \times \frac{9}{10} = ₹\ 1935$$

$$1935 - 1505 = ₹\ 430$$

$$\Rightarrow \quad x = \frac{430}{1935} \times 100 = 22.22\%$$

9. (b) MRP SP

50 → 37 = ₹ 1554

× 42 ↓ 1 = ₹ 42

₹ 2100

10. (a)

MRP		SP		CP
5		4	→	4
6	←	6		5
30		24		20

10

$$\text{Required\%} = \frac{10}{20} \times 100$$

$$= 50\%$$

11. (a) I[st] Scheme

MRP	SP
100	80
100	88
10000	7040

II[nd] Scheme

MRP	SP
100	75
100	95
10000	7125

III[rd] Scheme

MRP	SP
100	70
100	97
10000	6790

The best scheme for the customer is III[rd] scheme

12. (a)

MRP		SP		CP
20		17	→	17
5	←	5		4
₹ 500 = 100		85		68
1 = 5				× 5 ↓
				₹ 340

13. (a)

MRP	SP	CP
10	9	
	9	8
10	9	8

$$\text{Profit\%} = \frac{2}{8} \times 100 = 25\%$$

14. (c) CP D SP

20000 1000 19000

Discount = 5%

$$\therefore \quad \text{SP} = 19000 \times \frac{95}{100} = ₹\ 18050$$

15. (d)

	MRP	SP
15%	20	17

$$\text{SP} = \frac{17}{20} \times 36000$$

$$\text{SP} = ₹\ 30600$$

16. (d)

SP		MRP		CP
5	←	5		4
4		5	→	5
20		25		20

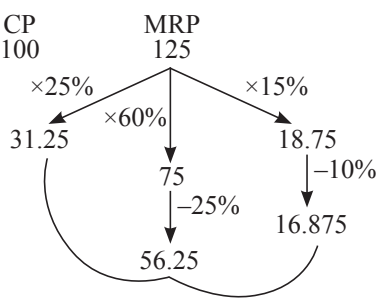
0

No profit, No loss

17. (a)

MRP		SP		CP
4		3	→	3
17	←	17		20
₹ 1360 = 68		51		60
1 = 20				× 20 ↓
				₹ 1200

18. (d)



Total SP = ₹ 104.375

$$\text{Profit\%} = \frac{4.375}{100} \times 100$$

$$= 4.375\%$$

19. (c)

MRP	SP
5	3
10	7
5	4
₹ 5500 = 250	84
₹ 1 = 22	× 22
	SP = ₹ 1848

20. (a)

MRP	SP	CP
20	13	
	13	10
20	13	10 = ₹ 950
× 95		1 = 95
₹1900		

21. (b)

MRP	SP
20	13
10	9
50	47
₹ 1000 = 10000	5499
$1 = ₹ \frac{1}{10}$	$\times \frac{1}{10}$
	SP = ₹ 549.90
	= ₹ 550

22. (d)

MRP	SP
₹ 8000 = 25	22
1 = ₹ 320	× 320
	₹ 7040

Total CP = 7040 + 160 = 7200

Profit = 8000 – 7200 = 800

$$\text{Profit\%} = \frac{800}{7200} \times 100 = 11\frac{1}{9}\%$$

23. (a)

MRP	SP
100	90 = ₹ 4950
2	₹ 1 = 55
100	88
× 55	
₹ 110	

24. (a)

	MRP	SP
New SP	25	22
	25	22
	625	484
	(19	25) × 25
	475	625 484
	Loss = 9	

$$\text{Loss} = \frac{9}{625} \times 5000 = ₹ 72$$

25. (c) $800 \times \frac{x}{100} \times \frac{x}{100} = 450$

$x^2 = 5625$

$x = 75$

100 – 75 = 25%

26. (d)

MRP	SP
10	9
20	19
50	49
₹ 488000 = 10000	8379
1 = 48.8	× 48.8
	₹ 408895.20

27. (c)

MRP	D%	SP	CP
3200	10%	2880	2448

$$\text{D\%} = \frac{432}{2880} \times 100$$

D% = 15%

28. (a)

MRP	SP
25	18
10	7
₹ 4875 = 250	126
1 = 19.5	× 19.5
	₹ 2457

29. (a)

5	6
5	4
25	24

$$\text{Loss\%} = \frac{1}{25} \times 100 = 4\% \text{ decrease}$$

30. (b)

MRP	SP
20	17 = ₹ 122700
× 7217.64	1 = ₹ 7217.64
SP = ₹ 144352.94	

EXERCISE 7C

For SSC CGL & CPO Exams

1. A article is sold for ₹ 288 after successive discounts of 25% and x%. If the marked price of the article is ₹ 480, what is the value of x?

SSC CGL 13/06/2019 (Shift-2)

(a) 20 **(b)** 16

(c) 15 **(d)** 18

2. An article is sold for ₹ 288 after successive discounts of 20% and 25%. What is the marked price of the article?

SSC CGL 13/06/2019 (Shift-1)

(a) ₹ 520 **(b)** ₹ 480

(c) ₹ 460 **(d)** ₹ 500

3. An article is sold for ₹ 612 after successive discounts of 25% and 15%. What is the marked price of the article?

SSC CGL 12/06/2019 (Shift-2)

(a) ₹ 1000 **(b)** ₹ 940

(c) ₹ 980 **(d)** ₹ 960

4. An article is sold for ₹ 545.40 after successive discounts of 30% and 15%. What is the marked price of the article? **SSC CGL 11/06/2019 (Shift-2)**

(a) ₹ 920 **(b)** ₹ 960

(c) ₹ 900 **(d)** ₹ 940

5. An article is sold for ₹ 535.50 after two successive discounts of 25% and 15%. What is the marked price of the article? **[SSC CGL 11/06/2019 (Shift-3)]**

(a) ₹ 800 **(b)** ₹ 830

(c) ₹ 820 **(d)** ₹ 840

6. An article is sold for ₹ 1,680 after two successive discounts of 20% and 16%. What is the marked price of the article? **[SSC CGL 11/06/2019 (Shift-2)]**

(a) ₹ 2,300 **(b)** ₹ 2,200

(c) ₹ 2,500 **(d)** ₹ 2,400

7. An article is sold for ₹ 657.90 after successive discounts of 15% and 10%. What is the marked price of the article? **[SSC CGL 11/06/2019 (Shift-1)]**

(a) ₹ 920 **(b)** ₹ 860

(c) ₹ 900 **(d)** ₹ 880

8. An article is sold for ₹ 642.60 after successive discounts of 15% and 10%. What is the marked price of the article? **[SSC CGL 10/06/2019 (Shift-3)]**

(a) ₹ 840 **(b)** ₹ 820

(c) ₹ 800 **(d)** ₹ 880

SOLUTIONS 7C

1. (a)

MRP	D%	SP	CP
480	25%	$480\times\frac{75}{100}=360$	288

$$\text{Discount} = 360 - 288 = 72$$

$$\text{Discount\%} = \frac{72}{360}\times 100 = 20\%$$

2. (b)

MRP	SP	
5	4	
4	3	
20	12	= ₹ 288
↓ × 24	1	= ₹ 24

MRP = ₹ 480

3. (d)

MRP	SP	
4	3	
20	17	
80	51	= ₹ 612
↓ × 12	1	= 12

MRP = ₹ 960

4. (a)

MRP	SP	
10	7	
20	17	
200	119	= ₹ 547.40
↓ × 4.6	1	= 4.6

MRP = ₹ 920

5. (a)

MRP	SP	
4	3	
20	17	
80	51	= ₹ 535.50
↓ × 10.5	1	= 10.5

MRP = ₹ 840

6. (c)

MRP	SP	
5	4	
25	21	
125	84	= ₹ 1680
↓ × 20	1	= 20

MRP = ₹ 2500

7. (b)

MRP	SP	
20	17	
10	19	
200	153	= ₹ 657.90
↓ × 4.3	1	= 4.3

MRP = ₹ 860

8. (a)

MRP	SP	
20	17	
10	9	
200	153	= ₹ 642.60
↓ × 4.2	1	= 4.2

MRP = ₹ 840