



THE MATH HUB

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Profit, Loss & Discount MCQs

100 FULLY SOLVED MCQs

PPSC, FPSC & ONE PAPER EXAMS

NTS • CSS MPT • PMS • Government Job Tests

Fast Methods • Four Options • Immediate Mathematical Solution

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PART 6 - PROFIT, LOSS & DISCOUNT | 100 SOLVED MCQs

Fast Profit, Loss & Discount Foundation

Basic quantities

$$\text{Profit} = \text{SP} - \text{CP}$$

$$\text{Loss} = \text{CP} - \text{SP}$$

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

$$\text{Loss \%} = \frac{\text{Loss}}{\text{CP}} \times 100$$

Successive discounts For discounts $a\%$ and $b\%$,

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

The two discounts are applied one after the other; they are not simply added.

Markup followed by discount Use multipliers directly:

$$\frac{\text{SP}}{\text{CP}} = \left(1 + \frac{m}{100}\right) \left(1 - \frac{d}{100}\right)$$

Then compare the result with 1.

Direct multiplier method

$$\text{SP} = \text{CP} \left(1 + \frac{p}{100}\right)$$

for a profit of $p\%$, and

$$\text{SP} = \text{CP} \left(1 - \frac{l}{100}\right)$$

for a loss of $l\%$.

Fast equal-SP result If two articles are sold at the same selling price, one at $x\%$ gain and the other at $x\%$ loss,

$$\text{Overall loss \%} = \frac{x^2}{100}$$

One-paper speed rule Whenever possible, take $\text{CP} = 100$ or $\text{MP} = 100$. Percentage questions then become direct multiplications instead of long algebra.

Direct Cost Price, Selling Price, Profit and Loss

MCQ 1

A coat is marked at \$50 and sold at a discount of 10%. How much is saved?

A. \$4

B. \$5

C. \$6

D. \$10

Official FPSC Practice Paper, General Abilities, Q95 (public practice item).

Solution

$$\begin{aligned} \text{Discount} &= \frac{10}{100} \times 50 \\ &= 5 \end{aligned}$$

$$\text{Saving} = \$5$$

Final Answer

Option B

Discount

$$\text{Discount} = \text{MP} - \text{SP}$$

$$\text{Discount \%} = \frac{\text{Discount}}{\text{MP}} \times 100$$

$$\text{SP} = \text{MP} \left(1 - \frac{d}{100}\right)$$

MCQ 2

A sculpture is sold for Rs. 79,950 after an 18% discount. Find its marked price.

- A. Rs. 95,000 B. Rs. 97,500
C. Rs. 98,500 D. Rs. 99,000

Adapted from an official FPSC General Science & Ability percentage/discount question.

Solution

Selling Price = 82% of Marked Price

$$79,950 = \frac{82}{100}M$$

$$M = 79,950 \times \frac{100}{82}$$

$$= 97,500$$

Final Answer

Option B

MCQ 3

An article costs Rs. 800 and is sold for Rs. 920. Find the profit percentage.

- A. 10% B. 12%
C. 15% D. 20%

Solution

$$\text{Profit} = 920 - 800 = 120$$

$$\text{Profit \%} = \frac{120}{800} \times 100$$

$$= 15\%$$

Final Answer

Option C

MCQ 4

An article costs Rs. 1,500 and is sold for Rs. 1,350. Find the loss percentage.

- A. 5% B. 8%
C. 10% D. 12%

Solution

$$\text{Loss} = 1500 - 1350 = 150$$

$$\text{Loss \%} = \frac{150}{1500} \times 100$$

$$= 10\%$$

Final Answer

Option C

MCQ 5

The cost price of an article is Rs. 640. It is sold at a profit of 25%. Find the selling price.

- A. Rs. 760 B. Rs. 780
C. Rs. 800 D. Rs. 820

Solution

$$SP = 640 \left(1 + \frac{25}{100} \right)$$

$$= 640 \times \frac{125}{100}$$

$$= 800$$

Final Answer

Option C

MCQ 6

The cost price is Rs. 2,500. If the loss is 12%, find the selling price.

- A. Rs. 2,100 B. Rs. 2,200
C. Rs. 2,250 D. Rs. 2,300

Solution

$$SP = 2500 \left(1 - \frac{12}{100} \right)$$

$$= 2500 \times \frac{88}{100}$$

$$= 2200$$

Final Answer

Option B

MCQ 7

An article is sold for Rs. 1,380 at a profit of 15%. Find the cost price.

- A. Rs. 1,100 B. Rs. 1,150
C. Rs. 1,200 D. Rs. 1,250

Solution

$$1380 = 115\% \text{ of CP}$$

$$CP = 1380 \times \frac{100}{115}$$

$$= 1200$$

Final Answer

Option C

MCQ 8

An article is sold for Rs. 1,840 at a loss of 8%. Find its cost price.

- A. Rs. 1,900 B. Rs. 2,000
C. Rs. 2,100 D. Rs. 2,200

Solution

$$1840 = 92\% \text{ of CP}$$

$$\begin{aligned} \text{CP} &= 1840 \times \frac{100}{92} \\ &= 2000 \end{aligned}$$

Final Answer

Option B

MCQ 9

A trader earns Rs. 180 profit on an article costing Rs. 1,200. Find the profit percentage.

- A. 12% B. 15%
C. 18% D. 20%

Solution

$$\begin{aligned} \text{Profit \%} &= \frac{180}{1200} \times 100 \\ &= \frac{3}{20} \times 100 \\ &= 15\% \end{aligned}$$

Final Answer

Option B

MCQ 10

A trader loses Rs. 225 on an article costing Rs. 1,500. Find the loss percentage.

- A. 10% B. 12%
C. 15% D. 18%

Solution

$$\begin{aligned} \text{Loss \%} &= \frac{225}{1500} \times 100 \\ &= 15\% \end{aligned}$$

Final Answer

Option C

MCQ 11

An article bought for Rs. 960 is sold for Rs. 1,200. Find the profit percentage.

- A. 20% B. 22.5%
C. 25% D. 30%

Solution

$$\text{Profit} = 1200 - 960 = 240$$

$$\begin{aligned} \text{Profit \%} &= \frac{240}{960} \times 100 \\ &= 25\% \end{aligned}$$

Final Answer

Option C

MCQ 12

An article bought for Rs. 875 is sold for Rs. 805. Find the loss percentage.

- A. 6% B. 8%
C. 10% D. 12%

Solution

$$\text{Loss} = 875 - 805 = 70$$

$$\begin{aligned} \text{Loss \%} &= \frac{70}{875} \times 100 \\ &= 8\% \end{aligned}$$

Final Answer

Option B

MCQ 13

Find the selling price of an article costing Rs. 1,250 if the profit is 20%.

- A. Rs. 1,400 B. Rs. 1,450
C. Rs. 1,500 D. Rs. 1,550

Solution

$$\begin{aligned} \text{SP} &= 1250 \times \frac{120}{100} \\ &= 1500 \end{aligned}$$

Final Answer

Option C

MCQ 14

Find the selling price of an article costing Rs. 1,800 if the loss is 5%.

- A. Rs. 1,690 B. Rs. 1,710
C. Rs. 1,720 D. Rs. 1,750

Solution

$$\begin{aligned} \text{SP} &= 1800 \times \frac{95}{100} \\ &= 1710 \end{aligned}$$

Final Answer

Option B

MCQ 15

An article is sold for Rs. 2,100 at a profit of 40%. Find the cost price.

- A. Rs. 1,400 B. Rs. 1,500
C. Rs. 1,600 D. Rs. 1,750

Solution

$$\begin{aligned} 2100 &= 140\% \text{ of CP} \\ \text{CP} &= 2100 \times \frac{100}{140} \\ &= 1500 \end{aligned}$$

Final Answer

Option B

MCQ 16

An article is sold for Rs. 2,160 at a loss of 10%. Find the cost price.

- A. Rs. 2,300 B. Rs. 2,400
C. Rs. 2,500 D. Rs. 2,600

Solution

$$\begin{aligned} 2160 &= 90\% \text{ of CP} \\ \text{CP} &= 2160 \times \frac{100}{90} \\ &= 2400 \end{aligned}$$

Final Answer

Option B

MCQ 17

If the ratio CP : SP = 5 : 6, find the profit percentage.

- A. 10% B. 15%
C. 20% D. 25%

Solution

$$\text{Profit} = 6 - 5 = 1 \text{ part}$$

$$\begin{aligned} \text{Profit \%} &= \frac{1}{5} \times 100 \\ &= 20\% \end{aligned}$$

Final Answer

Option C

MCQ 18

If SP : CP = 9 : 10, find the loss percentage.

- A. 5% B. 10%
C. $11\frac{1}{9}\%$ D. 12.5%

Solution

$$\text{Loss} = 10 - 9 = 1 \text{ part}$$

$$\begin{aligned} \text{Loss \%} &= \frac{1}{10} \times 100 \\ &= 10\% \end{aligned}$$

Final Answer

Option B

MCQ 19

If profit is $\frac{1}{5}$ of the cost price, what is the profit percentage?

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$\text{Profit} = \frac{1}{5} \text{ CP}$$

$$\begin{aligned} \text{Profit \%} &= \frac{\frac{1}{5} \text{ CP}}{\text{CP}} \times 100 \\ &= 20\% \end{aligned}$$

Final Answer

Option B

MCQ 20

If loss is $\frac{1}{8}$ of the cost price, what is the loss percentage?

- A. 10% B. 12.5%
C. 15% D. 20%

Solution

$$\begin{aligned}\text{Loss \%} &= \frac{1}{8} \times 100 \\ &= 12.5\%\end{aligned}$$

Final Answer

Option B

Reverse Percentage and Cost/Selling Relationships**MCQ 21**

Profit is 25% of the selling price. What is the profit percentage on cost price?

- A. 25% B. 30%
C. $33\frac{1}{3}\%$ D. 40%

Solution

$$\text{Let SP} = 100$$

$$\text{Profit} = 25$$

$$\text{CP} = 100 - 25 = 75$$

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

Final Answer

Option C

MCQ 22

Loss is 20% of the selling price. What is the loss percentage on cost price?

- A. 15% B. $16\frac{2}{3}\%$
C. 20% D. 25%

Solution

$$\text{Let SP} = 100$$

$$\text{Loss} = 20$$

$$\text{CP} = 100 + 20 = 120$$

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

Final Answer

Option B

MCQ 23

The selling price is 125% of the cost price. Find the profit percentage.

- A. 20% B. 25%
C. 30% D. 35%

Solution

$$\text{SP} = 125\% \text{ of CP}$$

$$\text{Profit} = 125\% - 100\% = 25\%$$

Final Answer

Option B

MCQ 24

The selling price is 92% of the cost price. Find the loss percentage.

- A. 6% B. 8%
C. 10% D. 12%

Solution

$$\begin{aligned}\text{Loss} &= 100\% - 92\% \\ &= 8\%\end{aligned}$$

Final Answer

Option B

MCQ 25

The cost price is 80% of the selling price. Find the profit percentage on cost price.

- A. 20% B. 25%
C. 30% D. 40%

Solution

$$\text{Let SP} = 100$$

$$\text{CP} = 80$$

$$\text{Profit} = 20$$

$$\text{Profit \%} = \frac{20}{80} \times 100 = 25\%$$

Final Answer

Option B

MCQ 26

The cost price is 125% of the selling price. Find the loss percentage on cost price.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$\text{Let SP} = 100$$

$$\text{CP} = 125$$

$$\text{Loss} = 25$$

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

Final Answer

Option B

MCQ 27

An article is sold for Rs. 2,400 at a profit of 20%. Find its cost price.

- A. Rs. 1,800 B. Rs. 2,000
C. Rs. 2,100 D. Rs. 2,200

Solution

$$\begin{aligned}\text{CP} &= 2400 \times \frac{100}{120} \\ &= 2000\end{aligned}$$

Final Answer

Option B

MCQ 28

An article is sold for Rs. 2,520 at a loss of 10%. Find its cost price.

- A. Rs. 2,600 B. Rs. 2,700
C. Rs. 2,800 D. Rs. 3,000

Solution

$$\begin{aligned}\text{CP} &= 2520 \times \frac{100}{90} \\ &= 2800\end{aligned}$$

Final Answer

Option C

MCQ 29

At what price should an article costing Rs. 1,600 be sold to gain 12.5%?

- A. Rs. 1,700 B. Rs. 1,750
C. Rs. 1,800 D. Rs. 1,850

Solution

$$12.5\% = \frac{1}{8}$$

$$\text{Profit} = \frac{1}{8}(1600) = 200$$

$$\text{SP} = 1600 + 200 = 1800$$

Final Answer

Option C

MCQ 30

At what price should an article costing Rs. 2,400 be sold to incur a loss of $16\frac{2}{3}\%$?

- A. Rs. 1,900 B. Rs. 2,000
C. Rs. 2,100 D. Rs. 2,200

Solution

$$16\frac{2}{3}\% = \frac{1}{6}$$

$$\text{Loss} = \frac{1}{6}(2400) = 400$$

$$\text{SP} = 2400 - 400 = 2000$$

Final Answer

Option B

Marked Price and Discount**MCQ 31**

An article marked Rs. 1,000 is sold at a discount of 15%. Find the selling price.

- A. Rs. 800 B. Rs. 825
C. Rs. 850 D. Rs. 875

Solution

$$\text{Discount} = \frac{15}{100}(1000) = 150$$

$$\text{SP} = 1000 - 150 = 850$$

Final Answer

Option C

MCQ 32

An article marked Rs. 2,400 is sold at a discount of 12.5%. Find the selling price.

- A. Rs. 2,000 B. Rs. 2,100
C. Rs. 2,150 D. Rs. 2,200

Solution

$$12.5\% = \frac{1}{8}$$

$$\text{Discount} = \frac{1}{8}(2400) = 300$$

$$\text{SP} = 2400 - 300 = 2100$$

Final Answer

Option B

MCQ 33

An article marked Rs. 1,800 is sold for Rs. 1,530. Find the discount percentage.

- A. 10% B. 12%
C. 15% D. 18%

Solution

$$\text{Discount} = 1800 - 1530 = 270$$

$$\text{Discount \%} = \frac{270}{1800} \times 100$$

$$= 15\%$$

Final Answer

Option C

MCQ 34

An article marked Rs. 3,200 is sold for Rs. 2,720. Find the discount percentage.

- A. 12% B. 15%
C. 18% D. 20%

Solution

$$\text{Discount} = 3200 - 2720 = 480$$

$$\text{Discount \%} = \frac{480}{3200} \times 100 = 15\%$$

Final Answer

Option B

MCQ 35

A discount of Rs. 240 is equal to 20% of the marked price. Find the marked price.

- A. Rs. 1,000 B. Rs. 1,200
C. Rs. 1,400 D. Rs. 1,500

Solution

$$240 = \frac{20}{100}M$$

$$M = 240 \times \frac{100}{20}$$

$$= 1200$$

Final Answer

Option B

MCQ 36

A discount of Rs. 360 is 15% of the marked price. Find the marked price.

- A. Rs. 2,000 B. Rs. 2,200
C. Rs. 2,400 D. Rs. 2,600

Solution

$$360 = \frac{15}{100}M$$

$$M = 360 \times \frac{100}{15} = 2400$$

Final Answer

Option C

MCQ 37

An article marked Rs. 1,500 receives successive discounts of 10% and 20%. Find the final selling price.

- A. Rs. 1,050 B. Rs. 1,080
C. Rs. 1,100 D. Rs. 1,200

Solution

$$1500 \times \frac{90}{100} = 1350$$

$$1350 \times \frac{80}{100} = 1080$$

Final Answer

Option B

MCQ 38

An article marked Rs. 2,000 receives discounts of 20% and then 10%. Find the final price.

- A. Rs. 1,400 B. Rs. 1,440
C. Rs. 1,460 D. Rs. 1,500

Solution

$$2000 \times 0.80 = 1600$$

$$1600 \times 0.90 = 1440$$

Final Answer

Option B

MCQ 39

What single discount is equivalent to successive discounts of 10% and 20%?

- A. 26% B. 28%
C. 30% D. 32%

Solution

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

$$= 30 - 2 = 28\%$$

Final Answer

Option B

MCQ 40

What single discount is equivalent to successive discounts of 25% and 20%?

- A. 35% B. 40%
C. 42% D. 45%

Solution

$$D = 25 + 20 - \frac{25 \times 20}{100}$$

$$= 45 - 5 = 40\%$$

Final Answer

Option B

MCQ 41

Two successive discounts of 10% each are equal to a single discount of:

- A. 18% B. 19%
C. 20% D. 21%

Solution

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

$$= 20 - 1 = 19\%$$

Final Answer

Option B

MCQ 42

Two successive discounts of 20% each are equal to a single discount of:

- A. 32% B. 34%
C. 36% D. 40%

Solution

$$D = 20 + 20 - \frac{20 \times 20}{100}$$

$$= 40 - 4 = 36\%$$

Final Answer

Option C

MCQ 43

Successive discounts of 30% and 10% are equivalent to:

- A. 35% B. 37%
C. 38% D. 40%

Solution

$$D = 30 + 10 - \frac{30 \times 10}{100}$$

$$= 40 - 3 = 37\%$$

Final Answer

Option B

MCQ 44

An article marked Rs. 4,000 is sold at 25% discount. Find the selling price.

- A. Rs. 2,800 B. Rs. 3,000
C. Rs. 3,100 D. Rs. 3,200

Solution

$$SP = 4000 \times \frac{75}{100}$$

$$= 3000$$

Final Answer

Option B

MCQ 45

An article marked Rs. 5,000 gets two successive discounts of 10% each. Find the final price.

- A. Rs. 4,000 B. Rs. 4,050
C. Rs. 4,100 D. Rs. 4,500

Solution

$$5000 \times 0.90 = 4500$$

$$4500 \times 0.90 = 4050$$

Final Answer

Option B

Reverse Discount and Markup-Discount Combinations

MCQ 46

An article is sold for Rs. 1,600 after a discount of 20%. Find the marked price.

- A. Rs. 1,800 B. Rs. 2,000
C. Rs. 2,100 D. Rs. 2,200

Solution

$$1600 = 80\% \text{ of MP}$$

$$MP = 1600 \times \frac{100}{80} = 2000$$

Final Answer

Option B

MCQ 47

An article is sold for Rs. 1,760 after a discount of 12%. Find the marked price.

- A. Rs. 1,900 B. Rs. 2,000
C. Rs. 2,100 D. Rs. 2,200

Solution

$$1760 = 88\% \text{ of MP}$$

$$MP = 1760 \times \frac{100}{88} = 2000$$

Final Answer

Option B

MCQ 48

After two successive discounts of 10% each, an article sells for Rs. 3,240. Find its marked price.

- A. Rs. 3,600 B. Rs. 3,800
C. Rs. 4,000 D. Rs. 4,200

Solution

$$3240 = 0.9 \times 0.9 \times M$$

$$3240 = 0.81M$$

$$M = \frac{3240}{0.81} = 4000$$

Final Answer

Option C

MCQ 49

After discounts of 20% and 10%, an article sells for Rs. 2,880. Find its marked price.

- A. Rs. 3,600 B. Rs. 4,000
C. Rs. 4,200 D. Rs. 4,500

Solution

$$2880 = 0.8 \times 0.9 \times M$$

$$2880 = 0.72M$$

$$M = 4000$$

Final Answer

Option B

MCQ 50

After discounts of 30% and 10%, an article sells for Rs. 2,520. Find its marked price.

- A. Rs. 3,500 B. Rs. 4,000
C. Rs. 4,200 D. Rs. 4,500

Solution

$$2520 = 0.7 \times 0.9 \times M$$

$$2520 = 0.63M$$

$$M = 4000$$

Final Answer

Option B

MCQ 51

An article costs Rs. 1,000, is marked Rs. 1,500, and sold at 20% discount. Find the profit percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$SP = 1500 \times 0.80 = 1200$$

$$\text{Profit} = 1200 - 1000 = 200$$

$$\text{Profit \%} = \frac{200}{1000} \times 100 = 20\%$$

Final Answer

Option B

MCQ 52

An article costs Rs. 1,600, is marked Rs. 2,000, and sold at 10% discount. Find the profit percentage.

- A. 10% B. 12.5%
C. 15% D. 20%

Solution

$$SP = 2000 \times 0.90 = 1800$$

$$\text{Profit} = 1800 - 1600 = 200$$

$$\text{Profit \%} = \frac{200}{1600} \times 100 = 12.5\%$$

Final Answer

Option B

MCQ 53

An article costs Rs. 1,800, is marked Rs. 2,400, and sold at 25% discount. What is the result?

- A. 10% profit B. No profit, no loss
C. 10% loss D. 25% loss

Solution

$$SP = 2400 \times 0.75 = 1800$$

$$SP = CP$$

∴ No profit, no loss

Final Answer

Option B

MCQ 54

An article costs Rs. 2,400, is marked Rs. 3,000, and sold at 30% discount. Find the loss percentage.

- A. 10% B. 12.5%
C. 15% D. 20%

Solution

$$SP = 3000 \times 0.70 = 2100$$

$$\text{Loss} = 2400 - 2100 = 300$$

$$\text{Loss \%} = \frac{300}{2400} \times 100 = 12.5\%$$

Final Answer

Option B

MCQ 55

A shopkeeper marks an article 25% above cost and gives a 10% discount. Find the profit percentage.

- A. 10% B. 12.5%
C. 15% D. 17.5%

Solution

$$\text{Let } CP = 100$$

$$MP = 125$$

$$SP = 125 \times 0.90 = 112.5$$

$$\text{Profit \%} = 12.5\%$$

Final Answer

Option B

MCQ 56

An article is marked 20% above cost and sold at 20% discount. Find the result.

- A. 4% profit B. 4% loss
C. No profit, no loss D. 8% loss

Solution

$$\text{Let } CP = 100$$

$$MP = 120$$

$$SP = 120 \times 0.80 = 96$$

$$\text{Loss} = 4\%$$

Final Answer

Option B

MCQ 57

An article is marked 50% above cost and sold at 20% discount. Find the profit percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$\text{Let } CP = 100$$

$$MP = 150$$

$$SP = 150 \times 0.80 = 120$$

$$\text{Profit \%} = 20\%$$

Final Answer

Option B

MCQ 58

An article is marked 40% above cost and sold at 25% discount. Find the profit percentage.

- A. 5% B. 10%
C. 12% D. 15%

Solution

$$\text{Let CP} = 100$$

$$\text{MP} = 140$$

$$\text{SP} = 140 \times 0.75 = 105$$

$$\text{Profit \%} = 5\%$$

Final Answer

Option A

MCQ 59

An article is marked 60% above cost and sold at 25% discount. Find the profit percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$\text{Let CP} = 100$$

$$\text{MP} = 160$$

$$\text{SP} = 160 \times 0.75 = 120$$

$$\text{Profit \%} = 20\%$$

Final Answer

Option B

MCQ 60

An article is marked 25% above cost and sold at 20% discount. What is the result?

- A. 5% profit B. No profit, no loss
C. 5% loss D. 10% profit

Solution

$$\text{Let CP} = 100$$

$$\text{MP} = 125$$

$$\text{SP} = 125 \times 0.80 = 100$$

$$\therefore \text{No profit, no loss}$$

Final Answer

Option B

Target Profit After Discount**MCQ 61**

An article costs Rs. 900. To earn 20% profit after giving 10% discount, what should be the marked price?

- A. Rs. 1,100 B. Rs. 1,200
C. Rs. 1,250 D. Rs. 1,300

Solution

$$\text{Required SP} = 900 \times 1.20 = 1080$$

$$1080 = 90\% \text{ of MP}$$

$$\text{MP} = 1080 \times \frac{100}{90} = 1200$$

Final Answer

Option B

MCQ 62

An article costs Rs. 1,600. To gain 12.5% after a 10% discount, find the marked price.

- A. Rs. 1,900 B. Rs. 2,000
C. Rs. 2,100 D. Rs. 2,200

Solution

$$\text{Required SP} = 1600 \times 1.125 = 1800$$

$$1800 = 0.90M$$

$$M = 2000$$

Final Answer

Option B

MCQ 63

An article costs Rs. 2,000. To gain 8% after a 10% discount, find the marked price.

- A. Rs. 2,200 B. Rs. 2,300
C. Rs. 2,400 D. Rs. 2,500

Solution

$$\text{Required SP} = 2000 \times 1.08 = 2160$$

$$2160 = 0.90M$$

$$M = 2400$$

Final Answer

Option C

MCQ 64

An article costs Rs. 2,500. To gain 20% after giving 25% discount, find the marked price.

- A. Rs. 3,500 B. Rs. 4,000
C. Rs. 4,200 D. Rs. 4,500

Solution

$$\text{Required SP} = 2500 \times 1.20 = 3000$$

$$3000 = 0.75M$$

$$M = 4000$$

Final Answer

Option B

MCQ 65

An article costs Rs. 1,800. To earn 10% profit after a 10% discount, find its marked price.

- A. Rs. 2,000 B. Rs. 2,100
C. Rs. 2,200 D. Rs. 2,400

Solution

$$\text{Required SP} = 1800 \times 1.10 = 1980$$

$$1980 = 0.90M$$

$$M = 2200$$

Final Answer

Option C

MCQ 66

An article marked Rs. 2,500 is sold at 20% discount and still gives 25% profit. Find its cost price.

- A. Rs. 1,500 B. Rs. 1,600
C. Rs. 1,700 D. Rs. 1,800

Solution

$$\text{SP} = 2500 \times 0.80 = 2000$$

$$2000 = 125\% \text{ of CP}$$

$$\text{CP} = 2000 \times \frac{100}{125} = 1600$$

Final Answer

Option B

MCQ 67

An article marked Rs. 3,600 is sold at 25% discount and yields 12.5% profit. Find the cost price.

- A. Rs. 2,200 B. Rs. 2,400
C. Rs. 2,500 D. Rs. 2,600

Solution

$$\text{SP} = 3600 \times 0.75 = 2700$$

$$2700 = 112.5\% \text{ of CP}$$

$$\text{CP} = 2700 \div 1.125 = 2400$$

Final Answer

Option B

MCQ 68

An article marked Rs. 3,000 is sold at 10% discount and incurs a 10% loss. Find the cost price.

- A. Rs. 2,800 B. Rs. 3,000
C. Rs. 3,200 D. Rs. 3,300

Solution

$$\text{SP} = 3000 \times 0.90 = 2700$$

$$2700 = 90\% \text{ of CP}$$

$$\text{CP} = 2700 \times \frac{100}{90} = 3000$$

Final Answer

Option B

MCQ 69

An article marked Rs. 4,000 is sold at 20% discount and incurs a 20% loss. Find the cost price.

- A. Rs. 3,600 B. Rs. 4,000
C. Rs. 4,200 D. Rs. 4,500

Solution

$$\text{SP} = 4000 \times 0.80 = 3200$$

$$3200 = 80\% \text{ of CP}$$

$$\text{CP} = 3200 \times \frac{100}{80} = 4000$$

Final Answer

Option B

MCQ 70

An article marked Rs. 1,800 is sold at 20% discount and gives 20% profit. Find the cost price.

A. Rs. 1,100**B.** Rs. 1,200**C.** Rs. 1,300**D.** Rs. 1,400**Solution**

$$SP = 1800 \times 0.80 = 1440$$

$$1440 = 120\% \text{ of CP}$$

$$CP = 1440 \times \frac{100}{120} = 1200$$

Final Answer

Option B

Selling-Price Changes and Quantity Relations

MCQ 71

An article is sold at 10% loss. By what percentage must the present selling price be increased to obtain 10% profit?

- A. 20% B. $22\frac{2}{9}\%$
C. 25% D. 30%

Solution

$$\text{Let CP} = 100$$

$$\text{Old SP} = 90, \quad \text{New SP} = 110$$

$$\text{Increase} = 110 - 90 = 20$$

$$\frac{20}{90} \times 100 = 22\frac{2}{9}\%$$

Final Answer

Option B

MCQ 72

An article is sold at 20% profit. If its selling price is reduced by 10%, what is the new profit percentage?

- A. 6% B. 8%
C. 10% D. 12%

Solution

$$\text{Let CP} = 100$$

$$\text{Old SP} = 120$$

$$\text{New SP} = 120 \times 0.90 = 108$$

$$\text{Profit} = 108 - 100 = 8\%$$

Final Answer

Option B

MCQ 73

An article is sold at 10% loss. If its selling price is increased by 20%, what is the new result?

- A. 6% profit B. 8% profit
C. 10% profit D. No profit, no loss

Solution

$$\text{Let CP} = 100$$

$$\text{Old SP} = 90$$

$$\text{New SP} = 90 \times 1.20 = 108$$

$$\text{Profit} = 8\%$$

Final Answer

Option B

MCQ 74

An article is sold at 25% profit. If the selling price is reduced by 20%, what is the result?

- A. 5% profit B. No profit, no loss
C. 5% loss D. 10% loss

Solution

$$\text{Let CP} = 100$$

$$\text{Old SP} = 125$$

$$\text{New SP} = 125 \times 0.80 = 100$$

$$\therefore \text{No profit, no loss}$$

Final Answer

Option B

MCQ 75

An article is sold at 20% loss. If its selling price is increased by 25%, what is the result?

- A. 5% profit B. No profit, no loss
C. 5% loss D. 10% profit

Solution

$$\text{Let CP} = 100$$

$$\text{Old SP} = 80$$

$$\text{New SP} = 80 \times 1.25 = 100$$

$$\therefore \text{No profit, no loss}$$

Final Answer

Option B

MCQ 76

The cost price of 20 articles equals the selling price of 16 articles. Find the profit percentage.

- A. 20% B. 25%
C. 30% D. 40%

Solution

$$20C = 16S$$

$$\frac{S}{C} = \frac{20}{16} = \frac{5}{4}$$

$$\text{Profit \%} = \left(\frac{5}{4} - 1 \right) 100 = 25\%$$

Final Answer

Option B

MCQ 77

The cost price of 15 articles equals the selling price of 12 articles. Find the profit percentage.

- A. 20% B. 25%
C. 30% D. $33\frac{1}{3}\%$

Solution

$$15C = 12S$$

$$\frac{S}{C} = \frac{15}{12} = \frac{5}{4}$$

$$\text{Profit \%} = 25\%$$

Final Answer

Option B

MCQ 78

The cost price of 12 articles equals the selling price of 15 articles. Find the loss percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$12C = 15S$$

$$\frac{S}{C} = \frac{12}{15} = \frac{4}{5}$$

$$\text{Loss \%} = \left(1 - \frac{4}{5}\right) 100 = 20\%$$

Final Answer

Option B

MCQ 79

The selling price of 10 articles equals the cost price of 12 articles. Find the profit percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$10S = 12C$$

$$\frac{S}{C} = \frac{12}{10} = 1.2$$

$$\text{Profit \%} = 20\%$$

Final Answer

Option B

MCQ 80

The selling price of 15 articles equals the cost price of 12 articles. Find the loss percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$15S = 12C$$

$$\frac{S}{C} = \frac{12}{15} = 0.8$$

$$\text{Loss \%} = 20\%$$

Final Answer

Option B

Unit Deals and False-Weight Problems**MCQ 81**

A trader buys 10 pens for Rs. 90 and sells each pen for Rs. 10. Find the profit percentage.

- A. 10% B. $11\frac{1}{9}\%$
C. 12.5% D. 15%

Solution

$$\text{CP per pen} = \frac{90}{10} = 9$$

$$\text{Profit per pen} = 10 - 9 = 1$$

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

Final Answer

Option B

MCQ 82

A trader buys 12 items for Rs. 100 and sells 10 items for Rs. 100. Find the profit percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$\text{CP per item} = \frac{100}{12}$$

$$\text{SP per item} = \frac{100}{10} = 10$$

$$\frac{\text{SP}}{\text{CP}} = \frac{10}{100/12} = 1.2$$

$$\text{Profit \%} = 20\%$$

Final Answer

Option B

MCQ 83

A trader buys 5 articles for Rs. 40 and sells 4 articles for Rs. 40. Find the profit percentage.

- A. 20% B. 25%
C. 30% D. $33\frac{1}{3}\%$

Solution

$$\text{CP per article} = \frac{40}{5} = 8$$

$$\text{SP per article} = \frac{40}{4} = 10$$

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

Final Answer

Option B

MCQ 84

A trader buys 8 articles for Rs. 72 and sells 6 articles for Rs. 72. Find the profit percentage.

- A. 25% B. 30%
C. $33\frac{1}{3}\%$ D. 40%

Solution

$$\text{CP per article} = \frac{72}{8} = 9$$

$$\text{SP per article} = \frac{72}{6} = 12$$

$$\text{Profit \%} = \frac{3}{9} \times 100 = 33\frac{1}{3}\%$$

Final Answer

Option C

MCQ 85

A trader buys 20 articles for Rs. 180 and sells 18 articles for Rs. 180. Find the profit percentage.

- A. 10% B. $11\frac{1}{9}\%$
C. 12.5% D. 15%

Solution

$$\text{CP per article} = \frac{180}{20} = 9$$

$$\text{SP per article} = \frac{180}{18} = 10$$

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

Final Answer

Option B

MCQ 86

A dealer claims to sell at 20% loss but gives only 750 g instead of 1 kg. Find his actual profit percentage.

- A. 5% B. $6\frac{2}{3}\%$
C. 8% D. 10%

Solution

$$\text{Let cost of 1 kg} = 100$$

$$\text{Charged price} = 80$$

$$\text{Actual cost of 750 g} = 75$$

$$\text{Profit} = 80 - 75 = 5$$

$$\text{Profit \%} = \frac{5}{75} \times 100 = 6\frac{2}{3}\%$$

Final Answer

Option B

MCQ 87

A dishonest dealer charges the cost price of 1 kg but gives only 800 g. Find his profit percentage.

- A. 20% B. 25%
C. 30% D. $33\frac{1}{3}\%$

Solution

$$\text{Let cost of 1 kg} = 100$$

$$\text{SP} = 100$$

$$\text{Actual cost of 800 g} = 80$$

$$\text{Profit \%} = \frac{20}{80} \times 100 = 25\%$$

Final Answer

Option B

MCQ 88

A dealer claims a 10% loss but gives only 800 g instead of 1 kg. Find the actual profit percentage.

- A. 10% B. 12.5%
C. 15% D. 20%

Solution

$$\text{Let cost of 1 kg} = 100$$

$$\text{Charged price} = 90$$

$$\text{Actual cost} = 80$$

$$\text{Profit \%} = \frac{10}{80} \times 100 = 12.5\%$$

Final Answer

Option B

MCQ 89

A dealer marks a commodity at a 25% profit on the cost of 1 kg but gives only 800 g for the price of 1 kg. Find the actual profit percentage.

- A. 50% B. 56.25%
C. 60% D. 62.5%

Solution

$$\begin{aligned}\text{Let cost of 1 kg} &= 100 \\ \text{Charged price} &= 125 \\ \text{Actual cost of 800 g} &= 80 \\ \text{Profit} &= 125 - 80 = 45 \\ \text{Profit \%} &= \frac{45}{80} \times 100 = 56.25\%\end{aligned}$$

Final Answer

Option B

MCQ 90

A dealer claims a 5% loss but gives only 900 g instead of 1 kg. Find his actual profit percentage.

- A. 5% B. $5\frac{5}{9}\%$
C. $6\frac{2}{3}\%$ D. 10%

Solution

$$\begin{aligned}\text{Let cost of 1 kg} &= 100 \\ \text{Charged price} &= 95 \\ \text{Actual cost} &= 90 \\ \text{Profit \%} &= \frac{5}{90} \times 100 = 5\frac{5}{9}\%\end{aligned}$$

Final Answer

Option B

Mixed High-Yield One-Paper Problems**MCQ 91**

Two articles are sold for Rs. 1,200 each. One is sold at 20% profit and the other at 20% loss. Find the overall result.

- A. 2% loss B. 4% loss
C. No profit, no loss D. 4% profit

Solution

$$\begin{aligned}CP_1 &= 1200 \times \frac{100}{120} = 1000 \\ CP_2 &= 1200 \times \frac{100}{80} = 1500 \\ \text{Total CP} &= 2500, \quad \text{Total SP} = 2400 \\ \text{Loss \%} &= \frac{100}{2500} \times 100 = 4\%\end{aligned}$$

Final Answer

Option B

MCQ 92

Two articles are sold for Rs. 960 each. One gives 20% profit and the other 20% loss. Find the overall loss percentage.

- A. 2% B. 4%
C. 5% D. 8%

Solution

$$\begin{aligned}CP_1 &= 960 \times \frac{100}{120} = 800 \\ CP_2 &= 960 \times \frac{100}{80} = 1200 \\ \text{Total CP} &= 2000, \quad \text{Total SP} = 1920 \\ \text{Loss \%} &= \frac{80}{2000} \times 100 = 4\%\end{aligned}$$

Final Answer

Option B

MCQ 93

Two articles are sold at the same selling price. One is sold at 25% gain and the other at 25% loss. Find the overall loss percentage.

- A. 4% B. 5%
C. 6.25% D. 8%

Solution

Equal SP and equal $x\%$ gain/loss

$$\begin{aligned}\text{Overall loss \%} &= \frac{x^2}{100} \\ &= \frac{25^2}{100} = 6.25\%\end{aligned}$$

Final Answer

Option C

MCQ 94

Two articles are sold at the same selling price. One gives 10% gain and the other 10% loss. Find the overall loss percentage.

- A. 0.5% B. 1%
C. 2% D. No loss

Solution

$$\begin{aligned}\text{Overall loss \%} &= \frac{10^2}{100} \\ &= 1\%\end{aligned}$$

Final Answer

Option B

MCQ 95

Two articles are sold for Rs. 1,500 each. One yields 25% profit and the other 25% loss. Find the overall loss percentage.

- A. 5% B. 6.25%
C. 7.5% D. 8%

Solution

$$\begin{aligned}\text{CP}_1 &= 1500 \times \frac{100}{125} = 1200 \\ \text{CP}_2 &= 1500 \times \frac{100}{75} = 2000 \\ \text{Total CP} &= 3200, \quad \text{Total SP} = 3000 \\ \text{Loss \%} &= \frac{200}{3200} \times 100 = 6.25\%\end{aligned}$$

Final Answer

Option B

MCQ 96

An article marked Rs. 2,500 is bought at 20% discount and then sold at the marked price. Find the profit percentage.

- A. 20% B. 25%
C. 30% D. 40%

Solution

$$\text{CP} = 2500 \times 0.80 = 2000$$

$$\text{SP} = 2500$$

$$\text{Profit} = 500$$

$$\text{Profit \%} = \frac{500}{2000} \times 100 = 25\%$$

Final Answer

Option B

MCQ 97

An article marked Rs. 2,000 is bought at 25% discount and sold at 10% discount on the marked price. Find the profit percentage.

- A. 15% B. 20%
C. 25% D. 30%

Solution

$$\text{CP} = 2000 \times 0.75 = 1500$$

$$\text{SP} = 2000 \times 0.90 = 1800$$

$$\text{Profit} = 300$$

$$\text{Profit \%} = \frac{300}{1500} \times 100 = 20\%$$

Final Answer

Option B

MCQ 98

An article marked Rs. 1,000 is bought by a shopkeeper at 20% trade discount and sold to a customer at 10% discount. Find the shopkeepers profit percentage.

- A. 10% B. 12.5%
C. 15% D. 20%

Solution

$$CP = 1000 \times 0.80 = 800$$

$$SP = 1000 \times 0.90 = 900$$

$$\text{Profit} = 100$$

$$\text{Profit \%} = \frac{100}{800} \times 100 = 12.5\%$$

Final Answer

Option B

MCQ 99

An article has a basic cost of Rs. 1,000. Transport adds 10% to its cost. If it is sold for Rs. 1,320, find the profit percentage on total cost.

- A. 15% B. 20%
C. 22% D. 32%

Solution

$$\text{Transport} = \frac{10}{100}(1000) = 100$$

$$\text{Total CP} = 1000 + 100 = 1100$$

$$\text{Profit} = 1320 - 1100 = 220$$

$$\text{Profit \%} = \frac{220}{1100} \times 100 = 20\%$$

Final Answer

Option B

MCQ 100

A shopkeeper buys 50 identical items for Rs. 4,000. Five become worthless. He sells each of the remaining items for Rs. 100. Find the overall profit percentage.

- A. 10% B. 12.5%
C. 15% D. 20%

Solution

$$\text{Saleable items} = 50 - 5 = 45$$

$$\text{Total SP} = 45 \times 100 = 4500$$

$$\text{Profit} = 4500 - 4000 = 500$$

$$\text{Profit \%} = \frac{500}{4000} \times 100 = 12.5\%$$

Final Answer

Option B

Profit, Loss & Discount - Rapid Revision Grid

Profit / loss base Profit and loss percentages are normally calculated on CP, not on SP:

$$\frac{\text{Profit or Loss}}{\text{CP}} \times 100$$

Profit multiplier

$$20\% \text{ profit} \Rightarrow \text{SP} = 1.20 \text{ CP}$$

$$25\% \text{ profit} \Rightarrow \text{SP} = 1.25 \text{ CP}$$

Loss multiplier

$$10\% \text{ loss} \Rightarrow \text{SP} = 0.90 \text{ CP}$$

$$20\% \text{ loss} \Rightarrow \text{SP} = 0.80 \text{ CP}$$

Successive discount shortcut

$$10\%, 20\% \Rightarrow 28\% \text{ equivalent discount}$$

$$20\%, 20\% \Rightarrow 36\% \text{ equivalent discount}$$

Equal gain and loss with equal SP

$$10\% \Rightarrow 1\% \text{ overall loss}$$

$$20\% \Rightarrow 4\% \text{ overall loss}$$

$$25\% \Rightarrow 6.25\% \text{ overall loss}$$

Exam-speed check For every answer, ask in this order:

$$\text{CP} \rightarrow \text{MP} \rightarrow \text{Discount} \rightarrow \text{SP}$$

Then compare SP with CP. This prevents mixing discount percentage with profit/loss percentage.