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Profit and Loss Questions for SSC Exams.

Profit and Loss Quiz 4

Directions: Kindly study the following Questions carefully and choose the right answer:

1. 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 sold at marked price allowing no discount.

A. 30%   B. 37%   C. 23%   D. 27%

2. Cost price of 100 books is equal to the selling price of 60 books. The gain percentage or loss percentage is:

A. $66\frac{3}{2}$%   B. 67%   C. 66%   D. $66\frac{2}{3}$%

3. 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. 8.5%   B. 8.34%   C. 8.33%   D. 8.16%

4. 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. 21%   B. 18%   C. 20%   D. 15%

5. Mohan sold his watch at 10% loss. If he had sold it for Rs. 45 more, he would have made 5% profit. The selling price (in Rs.) of watch was

A. 300   B. 900   C. 110   D. 270

6. A vendor loses the selling price of 4 oranges on selling 36 oranges. His loss per cent is

A. $12\frac{1}{2}$%   B. 9%   C. 10%   D. $11\frac{1}{2}$%

7. Successive discounts of 30% and 20% is equivalent to a single discount of

A. 50%   B. 40%   C. 44%   D. 10%

8. The total discount on Rs. 1860 due after a certain time at 5% is Rs. 60. Find the time after which it is due

A. 9 months   B. 10 months   C. 8 months   D. 7 months

9. Simon purchased a bicycle for Rs. 6810. He had paid a VAT of 13.5%. The list price of the bicycle was

A. Rs. 5970.50   B. Rs. 6696.50   C. Rs. 6000   D. Rs. 6140

10. 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. 300   C. Rs. 270   D. Rs. 250

Correct Answers:

1	2	3	4	5	6	7	8	9	10
A	D	A	C	D	C	C	C	C	B

Explanations:

1. For this question we can apply a short trick approach

$$\left(\frac{x + y}{100 - y}\right) \times 100\%$$

where x = gain% after allowing the discount = 17%,
And y = discount offered on marked price = 10%
Now, on putting values of x and y in the short trick approach, we get

$$= \frac{17 + 10}{100 - 10} \times 100 \ = \frac{27}{90} \times 100 = 30\%.$$

Hence, option A is correct.

2. To solve this question, now we can apply a short trick approach

Gain% or Loss% $= \dfrac{x - y}{y} \times 100\%$

x is the number of books the cost price of which is given = 100
y is the number of books the selling price of which is given = 60
By the short trick approach, we get

Gain percentage $= \dfrac{100 - 60}{60} \times 100\% = \dfrac{40}{60} \times 100\%$

$= 66\dfrac{2}{3}\%.$

Hence, option D is correct.

3.

Discount% $= \dfrac{CP - SP}{CP} \times 100\%$

$= \dfrac{300 - 274.50}{300} \times 100 \ = \dfrac{25.50}{3} = 8.5\%.$

Hence, option A is correct.

4. Let's assume CP = 100, therefore MP = 140 and SP = 112.

Discount% = $\dfrac{MP - SP}{MP} \times 100\%$

{As discount is always calculated on Marked Price.}

= $\dfrac{140 - 112}{140} \times 100$ = $\dfrac{28}{140} \times 100$ = 20%.

Hence, option C is correct.

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5. Let the original SP = x

Therefore, new SP = (x + 45)

New SP = $\dfrac{100 + Profit\%}{100 - Discount\%} \times$ old SP

$\Rightarrow$ (x + 45) = $\dfrac{100 + 5}{100 - 10} \times x$

$\Rightarrow$ (x + 45) = $\dfrac{105}{90} \times x$ $\Rightarrow$ 90x + 90 × 45 = 105x

$\Rightarrow$ 15x = 90 × 45 $\Rightarrow$ x = $\dfrac{90 \times 45}{15}$ = 270.

Hence, option D is correct.

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6. Given,

In case of loss,

36 CP − 36 SP = 4 SP

$\Rightarrow$ 36 CP = 40 SP

To solve this question now, we can apply a short trick approach

Gain% or Loss% = $\dfrac{x - y}{y} \times 100\%$

x is the number of oranges the cost price of which is given = 36

y is the number of oranges the selling price of which is given = 40

By the short trick approach, we get

Loss% = $\dfrac{36 - 40}{40} \times 100\%$ = $\dfrac{-4}{40} \times 100\%$ = − 10%.

Note: '−' sign shows the loss percentage here.

Hence, option C is correct.

7. To solve this question, we can apply the net% effect formula

$$= \left(x + y + \frac{xy}{100}\right)\%$$

By the net% effect formula, we get

$$= \left(-30 - 20 + \frac{30 \times 20}{100}\right) = -50 + 6 = -44\%.$$ (Negative sign shows the Loss or Discount)

Hence, the single equivalent discount will be 44%.

Hence, option C is correct.

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8. Amount (A) = 1860/-, True Discount = 60/-, Rate of interest (R) = 5%

$$\text{Time (T)} = \frac{100 \times TD}{(A - TD) \times R} = \frac{100 \times 60}{(1860 - 60) \times 5} \implies T = \frac{100 \times 60}{1800 \times 5} = \frac{2}{3}\text{years}$$

$$\text{Total months} = \frac{12 \times 2}{3} = 8 \text{ months.}$$

Hence, option C is correct.

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9. Let's take the original price (list price) of the bicycle be x, then

$$113.5\% \text{ of } x = 6810 \implies x = \frac{6810 \times 100}{113.5} = \frac{6810 \times 1000}{1135} = 6000/-$$

Hence, option C is correct.

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10. Let's take CP = x, then

$$90\% \text{ of } x = 270 \implies x = \frac{270 \times 100}{90} = 300/-$$

Hence, option B is correct.