Profit & Loss Questions for SSC GD PDF

Instructions
For the following questions answer them individually

Question 1

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 ther radio at a loss of 5%. The total loss or gain is

A Gain Rs.353.50

B Gain Rs.362.50

C Loss Rs.332

D Loss Rs.300

Answer: B

Explanation:
Cost price of TV = Rs. 2000

Profit % = 20%

=> Selling price of TV = $2000 + (\frac{20}{100} \times 2000)$

= $2000 + 400 = Rs.\ 2400$

Similarly, selling price of radio = $750 - (\frac{5}{100} \times 750)$

= $750 - 37.5 = Rs.\ 712.5$

Thus, total cost price = $(2000 + 750) = Rs.\ 2750$

and total selling price = $(2400 + 712.5) = Rs.\ 3112.5$

$\therefore$ **Gain** = $3112.5 - 2750 = Rs.\ 362.50$

=> Ans - (B)

Question 2

A use worth Rs.1,50,000 is sold by X to Y at 5% profit. Y sells the house back to X at 2% loss. Then in the entire transaction:

A X gains Rs.3150

B X loses Rs.4350

C X loses Rs.1350

D X gains Rs.4350

Answer: A

Explanation:
In the first transaction :

Cost price for X = Rs. 1,50,000

Profit % = 5%

=> Selling price for X = Cost price of Y = $1,50,000 + (\frac{5}{100} \times 1,50,000)$

= $1,50,000 + 7500 = Rs.\ 1,57,500$

In the second transaction :

Cost price for Y = Rs. 1,57,500

Loss % = 2%

=> Selling price for Y = Cost price of X = $1,57,500 - (\frac{2}{100} \times 1,57,500)$

= $1,57,500 - 3150 = Rs.\ 1,54,350$

$\therefore$ Total profit for X = $1,57,500 - 1,54,350 = Rs.\ 3150$

=> Ans - (A)

Question 3

A trader sold an article at a gain of 20%. Had he purchased it for 40% more and sold for Rs 24 less, then he would have incurred a loss of 20%. What is the cost price (in Rs) of the article?

A 150

B 300

C 450

D 600

Answer: B

Explanation:

Let cost price of article = Rs. $100x$

Profit % = 20%

=> Selling price = $100x + (\frac{20}{100} \times 100x)$

= $100x + 20x = Rs.\ 120x$

Now, new cost price = $100x + (\frac{40}{100} \times 100x)$

= $100x + 40x = Rs.\ 140x$

Also, new selling price = Rs. $(120x - 24)$

=> Loss % = $\frac{140x-(120x-24)}{140x} \times 100 = 20$

=> $\frac{20x+24}{7x} = \frac{20}{5}$

=> $20x + 24 = 4 \times 7x$

=> $28x - 20x = 24$

=> $x = \frac{24}{8} = 3$

$\therefore$ Cost price = $100 \times 3 = Rs.\ 300$

=> Ans - (B)

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Question 4

By selling a table for Rs.2700 a man gets 10% loss, and than at what price (in Rs) should he sell to gain $33\frac{1}{3}$ %?

A 3000

B 3300

C 3600

D 4000

Answer: D

Explanation:
Selling price = Rs. 2700 and loss % = 10%

=> Cost price = $\frac{2700}{(100-10)} \times 100$

= $30 \times 100 = Rs.\ 3000$

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

$\therefore$ Selling price = $3000 + (\frac{100}{3 \times 100} \times 3000)$

= $3000 + 1000 = Rs.\ 4000$

=> Ans - (D)

Question 5

A trader buys two articles for Rs 4000 each. While selling if he gains 12.5% on one and losses 20% on the other, then what will be the overall loss percentage?

A 2.5

B 3.75

C 5

D 5.25

Answer: B

Explanation:
Cost price of each article = Rs. 4000

Profit % on one article = 12.5%

=> Selling price of first article = $4000 + (\frac{12.5}{100} \times 4000)$

= $4000 + 500 = Rs.\ 4500$

Similarly, selling price of second article = $4000 - (\frac{20}{100} \times 4000)$

= $4000 - 800 = Rs.\ 3200$

Thus, total cost price = $4000 + 4000 = Rs.\ 8000$

Total selling price = $4500 + 3200 = Rs.\ 7700$

$\therefore$ Overall loss % = $\frac{(8000-7700)}{8000} \times 100$

= $\frac{300}{80} = 3.75\%$

=> Ans - (B)

Question 6

If a man were to sell his hand-cart for ₹720, he would lose 25%. At what price must he sell it to gain 25% ?

A ₹960

B ₹1152

C ₹768

D ₹1200

Answer: D

Explanation:
Selling price = Rs. 720

Loss % = 25%

=> Cost price = $\frac{720}{(100-25)} \times 100$

= $720 \times \frac{4}{3} = Rs.\ 960$

Profit % = 25%

=> Selling price = $960 + (\frac{25}{100} \times 960)$

= $960 + 240 = Rs\ 1200$

=> Ans - (D)

Question 7

By selling some goods at ₹31, a salesman loses 7% on his output. Find the percentage profit or loss. When he sells the same at ₹35.

A Profit 5%

B Loss 5 %

C Loss 7 %

D Profit 7 %

Answer: A

Explanation:
Selling price = Rs. 31 and loss % = 7%

=> Cost price = $\frac{31}{(100-7)} \times 100$

= $\frac{3100}{93} = Rs. \frac{100}{3}$

If selling price = Rs. 35

=> *Profit %* = $\frac{35-\frac{100}{3}}{\frac{100}{3}} \times 100$

= $\frac{(105-100)}{100} \times 100 = 5\%$

=> Ans - (A)

Question 8

Satish bought two articles at the same price. He sold one of them at 27% profit and one at 39% loss. What is his net profit/loss percentage?

A 12% loss

B 12% profit

C 6% profit

D 6% loss

Answer: D

Explanation:
Let the CP of each article be Rs. 100x
Then, total CP = 100x * 2 = 200x
SP of the article sold at 27% profit = Rs. 127x
SP of the article sold at 39% loss = Rs. 61x
Total SP of both articles = Rs. (127x + 61x) = Rs. 188x
Since CP > SP, we can say that Satish incurred loss in this transaction.
Net loss incurred = Rs. (200x - 188x) = Rs. 12x
Net profit % = $\frac{12x}{200x} \times 100$ = 6%.
Therefore, option D is the right answer.

Question 9

Ajay sold his bike to Raman at 10% profit. Raman sold that bike to Abir at 10% profit. Abir sold that bike to Sumi at 10%loss. If Sumi paid 10890 for the bike, how much did Raman pay for the bike?

A Rs. 10000

B Rs. 12100

C Rs. 11000

D Rs. 10900

Answer: C

Explanation:
Let the CP of bike be Rs. 100x
SP for Ajay = CP for Raman = Rs 100x + 10% profit = Rs. 110x
SP for Raman = CP for Abir = Rs. 110x + 10% profit = Rs. 121x
SP for Abir = CP for Sumi = Rs. 121x + 10% loss = Rs. 108.9x
It is given that,
108.9x = 10890
=>x = 100
CP for Raman = Rs. 110x = Rs. 11000
Hence, option C is the correct answer.

Question 10

A merchant marks the price of his articles 20% above the cost price. If he allows 20% discount, then what is the profit or loss percentage?

A 2% loss

B 4% profit

C 4% loss

D No profit/loss

Answer: C

Explanation:
Let cost price = Rs. $100x$

=> Marked price = $100x + (\frac{20}{100} \times 100x) = Rs.\ 120x$

Discount % = 20%

=> Selling price = $120x - (\frac{20}{100} \times 120x) = Rs.\ 96x$

∵ Selling price < Cost price, thus loss % = $\frac{(100x-96x)}{100x} \times 100 = 4\%$

=> Ans - (C)

Question 11

The marked price of an article is 60% more than its cost price. What maximum discount percentage can be offered by the shopkeeper to sell his article at no profit or no loss?

A 37.5

B 62.5

C 50

D 25

Answer: A

Explanation:
Let cost price = Rs. $100x$

Markup % = 60%

=> Marked price = $100x + (\frac{60}{100} \times 100x) = Rs.\ 160x$

To have no profit/loss, => Selling price = Rs. $100x$

∴ Discount % = $\frac{(160x-100x)}{160x} \times 100$

= $\frac{600}{16} = 37.5\%$

=> Ans - (A)

Question 12

Mukesh sells two shirts. The cost price of the first shirt is equal to the selling price of the second shirt. The first shirt is sold at a profit of 30% and the second shirt is sold at a loss of 30%. What is the ratio of the selling price of the first shirt to the cost price of the second shirt?

A 91:100

B 100:91

C 31:50

D 50:31

Answer: A

Explanation:
Let cost price of 1st shirt = Rs. $100x$

Profit % = 30%

=> Selling price of 1st shirt = $100x + (\frac{30}{100} \times 100x) = Rs.\ 130x$

Also, selling price of 2nd shirt = Rs. $100x$

Loss % = 30%

=> Cost price of 2nd shirt = $\frac{100x}{(100-30)} \times 100 = Rs.\ \frac{1000x}{7}$

$\therefore$ Required ratio = $\frac{130x}{\frac{1000x}{7}}$

= $(13 \times 7) : 100 = 91 : 100$

=> Ans - (A)

Question 13

Rahul professes to lose 16% on selling sugar and uses a weight of 680 gm instead of 1 kg. What is the total profit percentage?

A 23.53

B 16

C 28.57

D 19.24

Answer: A

Explanation:
Let cost price of 1 kg sugar = Rs. 1000 (1 gm sugar cost Re. 1)

=> Cost price of 1 kg sugar (680 gm in reality) = Rs. 680

Selling price after 16% loss of 1 kg sugar = $1000 - (\frac{16}{100} \times 1000) = Rs.\ 840$

$\therefore$ Profit % = $\frac{(840-680)}{680} \times 100$

= $\frac{400}{17} = 23.529 \equiv 23.53\%$

=> Ans - (A)

Question 14

N professes to lose 25% on rice and uses a weight of 750 gm instead of 1 kg. What is the total profit or loss percentage?

A 5.25% profit

B 12.5% profit

C No profit/loss

D 5.25% loss

Answer: C

Explanation:
Let cost price of N = Rs. 1000/kg = Re. 1/gm

Loss % = 25%

=> Selling price = Rs. 750/750 gm = Re. 1/gm

Since, both the cost price and selling price are equal, thus N has no profit or loss.

=> Ans - (C)

Question 15

If 60% of total articles are sold at a loss of 50% and remaining articles are sold at a profit of 50%, then what will be the overall loss percentage?

A 20

B 15

C 25

D 10

Answer: D

Explanation:
Let total articles = 100 and price of all the articles = Rs. 100

Number of articles sold at 50% loss = $\frac{60}{100} \times 100 = 60$

Selling price of these articles = $60 - (\frac{50}{100} \times 60)$

= $60 - 30 = Rs.\ 30$

Similarly, selling price of (remaining 40) articles sold at 50% profit = $40 + (\frac{50}{100} \times 40)$

= $40 + 20 = Rs.\ 60$

Thus, net selling price = Rs. 90

$\therefore$ Overall loss % = $\frac{(100-90)}{100} \times 100 = 10\%$

=> Ans - (D)