

BHARAT SCHOOL OF BANKING

PROFIT AND LOSS

Question 1

Ramu buys 3 dozen tomatoes for Rs. 360. He buys carry bags to take them to his shop. Only one dozen can be filled into a carry bag and cost of each carry bag is Rs.10. He then sells the tomatoes along with carry bags for a cost of 200 per dozen. What is his profit percentage.

- a. 53.84%
- b. 60%
- c. 56.67%
- d. 63.84%
- e. 72%

Answer : a. 53.84%

Cost of 3 dozens of tomatoes is Rs. 360

Cost of 1 carry bag = Rs. 10. Therefore, three of them cost Rs. 30

Overall CP of tomatoes = 360 + 30 = Rs. 390

SP of each dozen of tomatoes = Rs. 200

Therefore SP of three dozens = 600

Profit percentage = $(SP - CP) / CP \times 100\% = (600 - 390)/390 \times 100\% = 210/390 \times 100\% = 2100/39\% = 53.84\%$

Question 2

Ravi buys a second hand car for Rs. 2,00,000. He then repaints it for Rs. 2000. He attaches new threading to all 4 tyres. Cost of threading per tyre is Rs. 200. At what price he should resell the car so that he gains 10%.

- a. Rs. 223080
- b. Rs. 223090
- c. Rs. 232080
- d. Rs. 223880
- e. Rs. 223070

Answer : a. Rs. 223080

Cost of second hand car = Rs. 2,00,000

Repainting cost = Rs. 2000

Cost of threading per tyre = Rs. 200

Cost of threading for all tyres = Rs. 200 x 4 = Rs. 800

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Total costs involved = Actual cost + Repainting costs + Threading costs = 2,00,000 + 2000 + 800 = 202800

Profit Percentage = 10% = $(SP - CP)/CP \times 100\%$

Or $10\% = (SP - 202800)/202800 \times 100\%$

Or $10 = (SP - 202800)/2028$

Or $SP = 20280 + 202800 = 223080$

Question 3

Suresh has four toys in his shop. He sells three toys at a profit percentage of 10%. What should be the profit percentage on his fourth toy so that his overall profit percentage jumps to 15%.

- a. 20%
- b. 30%
- c. 15%
- d. 70%
- e. 10%

Answer : 30%

Let the CP of each toy be Rs. 100. Therefore CP on all 4 toys = Rs. 400

SP on each of the first three toys = Rs. 110 (as it is given that the profit percentage is 10)

Therefore SP of first three toys = Rs. 110 x 3 = Rs. 330

Let the profit percentage on 4th toy be P%

Therefore SP of fourth toy = Rs. 100 + P

SP of all 4 toys = Rs. 330 + 100 + P = Rs. 430+P

Overall profit percentage = 15% = $(SP \text{ of } 4 \text{ toys} - CP \text{ of } 4 \text{ toys} / CP \text{ of } 4 \text{ toys} \times 100\% = 430+P-400/400 \times 100\%$

Or $15 = 30+P/4$

Or $30 + P = 60$

Or $P = 30$

Therefore profit percentage on fourth toy = 30%

Question 4

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Thomas buys 4 washing machines at a cost of Rs 20,000 per machine. He sells first machine at a profit percentage of 25%. What should be his loss percentage on remaining three washing machines so that his overall profit/loss on sale of all 4 machines is nil.

- a. Rs. 55050
- b. Rs. 55000
- c. Rs. 56000
- d. Rs. 50000
- e. Rs. 55040

Answer : b. Rs. 55000

CP of all 4 machines = CP of each machine x 4 = Rs. 20,000 x 4 = Rs. 80,000

Profit percentage on first machine = 25%

CP of first machine = Rs. 20,000

Therefore profit percentage = 25% = $\frac{SP - 20000}{20000} \times 100\%$

Or 25 = $\frac{SP - 20000}{2000}$

Or SP of first washing machine = 25000

Let SP of remaining three machines be Rs. L

Therefore SP of all four machines = SP of first machine + SP of remaining machines = 25000+L

Profit percentage on all 4 machines = 0% = $\frac{SP \text{ of all 4} - CP \text{ of all 4}}{CP \text{ of all 4}} \times 100\%$

Or 0 = $\frac{(25000 + L - 80000)}{80000} \times 100\%$

Or 0 = 25000 + L - 80000

Or L = Rs. 55000

Question 5

A seller sold his articles in two types such that three fourth at a profit of 10% and the remaining at loss of 2%. If the total profit was Rs.1500, what was the total value of the articles ?

- a)Rs.20409
- b)Rs.21009
- c)Rs.21429
- d)Rs.21400

Answer : c)Rs.21429

Solution:

Let the total value be Rs.X .

The value of $\frac{3}{4}$ th = Rs. $\frac{3X}{4}$ then the value of $\frac{1}{4}$ th = Rs. $\frac{X}{4}$

Since he made a profit of 10% on $\frac{3X}{4}$ and loss 2% on $\frac{X}{4}$

Selling price = Rs.[110% of $\frac{3X}{4}$] + [98% of $\frac{X}{4}$]

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$$= \text{Rs.}330X/400 + 98X/400$$

$$= \text{Rs.}428X/400$$

Since the total cost price is Rs.X and the total profit is Rs.1500 then

$$\text{Rs.}428X/400 - X = \text{Rs.}1500$$

$$28X = 1500 \times 400 = \text{Rs.}6,00,000$$

$$X = 6,00,000/28 = \text{Rs.}21428.57 = \text{Rs.}21429$$

Hence the answer is Rs.21429

Question 6

Meera sold 8 keys and makes a profit equal to the selling price of 2 keys, what is the profit percentage?

- a)33(1/3)% b)35(1/3)% c)33% d)35%

Answer : a)33(1/3)%

Solution :

By observing the given data we can have

S.P of 8 keys - C.P of 8 keys = profit = S.p of 2 keys then

S.P of 6 keys = c.p of 8 keys -----eq1

Let c.p of each key be Re.1

Then c.p of 8 keys = Rs.8

and s.p of 6 keys = Rs.8 (using eq1)

Now, the percent profit is = $(2/6 \times 100)\% = 100/3\% = 33(1/3)\%$

Question 7

If the profit is 40% and Rs.500 is the difference between c.p and s.p then c.p is:

- a)Rs.1750 b)Rs.1250 c)Rs.1500 d)Rs.1800

Answer : b)Rs.1250

Solution :

Let c.p be Rs.X then s.p = Rs.140% of X = Rs.14X/10

Now, $14X/10 - X = \text{Rs.}500$

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$$4X = \text{Rs.}5000$$

$$X = \text{Rs.}1250$$

$$\text{s.p} = \text{Rs.}14 \times 1250 / 10 = \text{Rs.}1750$$

Hence the c.p is Rs.1250

Question 8

A seller expects a gain of 25% on his cost price. If in a month, his sale was Rs.8000, what was his profit?

a) Rs.1000 b) Rs.2000 c) Rs.1600 d) Rs.2600

Answer : c) Rs.1600

Solution :

The seller expects a gain of 25% on cost price.

Let the cost price be Rs.100 and to get a gain of 25% the selling price should be Rs.125.

In a month his sale was Rs.8000

S.P	C.P
125	100
8000	?

i.e., the cost price of that month = $100 \times 8000 / 125 = \text{Rs.}6400$

Then the profit = S.P - C.P = Rs. 8000 - 6400 = Rs.1600

Question 9

If the selling price of 25 pens is equal to the cost price of 35 pens, then the profit percentage is:

a) 10 b) 40 c) 15 d) 21

Answer : b) 40

Solution:

Let S.P of each pen = Re.1

Then S.P of 25 pens = Rs.25

And S.P of 35 pens = Rs.35

Since S.P of 25 pens = C.P of 35 pens

Then C.P of 35 pens = Rs.25

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Therefore gain% = $(10/25) \times 100\% = 40\%$
Hence the answer is 40%

Question 10

What percent of selling price would be 30% of cost price if the profit is also a 30% of the selling price?

a) 21 b) 34 c) 81 d) 52

Answer : a) 21

Solution:

Let the selling price be Rs.100

Then profit = Rs.30

Therefore C.P = $100 - 30 = \text{Rs.}70$

Then, 30% of C.P = $30 \times 70 / 100 = \text{Rs.}21$

We have to find, how much % of S.P is 21

Let X% of S.P be 21.

i.e., $X/100 \times 100 = 21$

$X = 21$

The required % is 21.