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Profit and Loss Questions for SBI PO Pre, IBPS PO Pre, SBI Clerk Mains and IBPS Clerk Mains Exams.

Profit and Loss Quiz 15

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

1. Hardik and Pandya sold their bats at Rs. 5457 each but Hardik incurred a loss of 15%, while Pandya gained 2%. What is the ratio of the cost price of the bat of Hardik to that of Pandya?
   A. 101 : 90  B. 467 : 389  C. 738 : 797  D. 642 : 537  E. None of these

2. The MRP of a article is 60% above its manufacturing cost. The article is sold through a retailer, who earns 19% profit on his purchase price. What is the approx. profit percentage for the manufacturer who sells his article to the retailer? The retailer gives 15% discount on MRP.
   A. 15.2%  B. 14.2%  C. 13%  D. 12.5%  E. None of these

3. An Article costs Rs. 5000 and it is marked up 40% by the shopkeeper. A customer walks into the shop and seems really interested in the article. Sensing this, the shopkeeper gets greedy and he raises the markup % to 80% and gives a discount of 20% to the customer. How much more/less money would he had made, had he not gotten greedy?
   A. Rs. 200 more  B. Rs. 200 less  C. Rs. 400 more  D. Rs. 400 less  E. None of these

4. A costs twice as much as B. A is sold at a loss of 10% and B is sold at 7/5th of its price. If selling price of A is Rs. 1200 more than selling price of B, what is the cost price of A?
   A. Rs. 2400  B. Rs. 3000  C. Can’t be determined  D. Rs. 6000  E. None of these

5. A firm of readymade garments makes both men’s and women’s shirts. Its average profit is 5% of the sales. Its profit in men’s shirts average 9% of the sales and women’s shirts comprise 60% of the output. The average profit per sale rupee in women shirts is
   A. 0.0266  B. 0.0466  C. 0.0433  D. 0.0233  E. None of these

6. A company first raises the price of articles by x% and then reduces all the new prices by x%. After one cycle, the price of a article decreased by Rs. 1,000; and after the second cycle, the article was sold for Rs. 23,040. What was the original price of the article?
   A. Rs. 15,000  B. Rs. 20,000  C. Rs. 25,000  D. Rs. 30,000  E. None of these
7. Shyam buys 600 laptops at Rs. 40,000 per unit from vendor A and buys 500 laptops at Rs. 35,000 per unit from vendor B and then sells all the laptops at Rs 50,000 per unit. What is the profit percentage?

A. 32.5  
B. 47.5  
C. 57  
D. 65  
E. None of these

8. An internet service provider company Century link marks up the cost price of a plan by 60% and offers a discount of 20%. He asks the customer to pay a service tax of 15% on the selling price. The customer refuses to pay the tax due to which the shopkeeper himself pays the service tax. Find his profit percentage

A. 8.8%  
B. 22.5%  
C. 5.6%  
D. 10.5%  
E. None of these

9. Two merchants sell an article for Rs.1,000 each. Merchant A computes his profit on cost price while Merchant B computes his profit on selling price. Both make a profit of 25% each. By how many rupees is the actual profit made by B more than that made by A?

A. Rs. 75  
B. Rs. 66  
C. Rs. 60  
D. Rs. 50  
E. None of these

10. A shopkeeper purchased 15 kg of variety A rice at Rs. X per kg and 10 kg of variety B rice at Rs. (X + 5) per kg. The shopkeeper sold the whole quantity of variety A rice at 10% profit and that of variety B rice at 20% profit. The total selling price of variety A rice was Rs. 30 more than that of variety B rice. Had the two varieties been mixed and sold at an overall profit of 20%, what would have been the selling price (per kg)?

A. Rs. 26.40  
B. Rs. 23.20  
C. Rs. 24.20  
D. Rs. 25.00  
E. None of these

Correct Answers:

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Explanations:

1.

CP of Hardik's bat = \( \frac{5457}{85} \times 100 \)

\[ = \frac{5457 \times 20}{17} = \frac{321 \times 20}{17} = 6420 \text{ Rs.} \]

CP of Pandya's bat = \( \frac{5457}{102} \times 100 \)

\[ = \frac{5457}{51} \times 50 = 107 \times 50 = 5350 \text{ Rs.} \]

\[ \therefore \text{Ratio} = 6420 : 5350 = 642 : 535 = 6 : 5 \]

Hence, option E is correct.

2.

The manufacturer sells the product to retailer, and then retailer sells to the customer.

Assume manufacturing cost = 100 and manufacturer profit = x

As Maximum Retail Price (MRP) of a product is 60% above its manufacturing cost,

MRP = 160\% \text{ of } 100 = 160

The retailer gives 15\% discount on MRP. So, customer price is 85\% of MRP.

Buyer Price = 85\% \text{ of } 160 = 136

Manufacturer makes x rupees profit, and then retailer makes 19\% profit.

So, 119\% \text{ of } (100 + x) = 136

\[ \Rightarrow 119 (100 + x) = 13600 \]

\[ \Rightarrow (100 + x) = 114.28 \]

\[ \Rightarrow x = 14.28 \]

Hence, Manufacturer profit = 14.2\%

The correct option is B.
3. We can compare Selling Price to get the answer.

**First Scenario:** When markup was 40%

\[ = 140\% \text{ of } 5000 = 7000 \]

**Second Scenario:** When there is markup of 80 % and then a discount of 20%

\[ = 80\% \text{ of } 180\% \text{ of } 5000 = 7200 \]

In the second scenario, he is earning Rs. 200 less.

So we can say that he would have earned Rs. 200 less, had he not gotten greedy.

Hence, option B is correct.

4. Let the cost of B be 100x ( for the sake of ease in computation)

So cost of A becomes 200x

Now SP of A becomes 90% of 200x = 180x

And SP of B becomes \(100x \times \frac{7}{5} = 140x\)

The difference between both of them is 40x

Since this difference corresponds to Rs. 1200, 40x = 1200 or x = 30

There cost of A becomes 200 \times 30 = Rs. 6000

Hence, option D is correct.

5. Let the total sales be Rs. 100

Women's shirt comprise 60% of the output

\[ \Rightarrow \text{Rs. 60 out of Rs. 100 is sales of female's shirts} \]

\[ \therefore \text{Men's shirts comprise } (100 - 60) = 40\% \text{ of the output} \]

\[ \Rightarrow \text{Rs. 40 out of Rs. 100 is the sales of male's shirts} \]

\[ \therefore \text{Average profit from men's shirt = 9\% of 40 = Rs. 3.6} \]

Overall average profit = 5 \% of 100 = Rs. 5

\[ \therefore \text{Average profit from women's shirts = } 5 - 3.6 = \text{Rs. 1.4} \]

This is from the sale of Rs. 60

\[ \therefore \text{The profit per rupee is } \frac{1.4}{60} = 0.0233 \]

\[ \therefore \text{The average profit per sale rupee in women shirts is Rs. 0.0233} \]

Hence, option D is correct.
6. This problem can be solved by either the conventional method or by using the answer options.

After the first cycle, the value of the article decreased by Rs. 1,000.
∴ The original price has to be more than Rs. 23,040
Hence, options 1 and 2 can be eliminated.

\[
x\% \text{ increase and } x\% \text{ decrease is equivalent to } \left(1 + \frac{x}{100}\right)\left(1 - \frac{x}{100}\right)
\]

∴ Old price \times \left[1 - \frac{x^2}{10000}\right] = \text{New price}

∴ Old price – new price = old price \times \left[\frac{x^2}{10000}\right]

i.e. 1000 = old price \times \left[\frac{x^2}{10000}\right]

Consider option C: Old price = 25000
∴ 1000 = 25000 \times \left[\frac{x^2}{10000}\right]
∴ \frac{x^2}{10000} = 400 \text{ i.e. } x = 20\%
∴ Change for second year = (1 + 0.2)(1 - 0.2) = (1.2)(0.8) = 0.96
Observe that value of old price : new price for second year = 23040 : 24000 = 0.96
Hence, original price of article = Rs. 25,000
Hence, option C is correct.

7. Total cost incurred = (600 \times 40,000) + (500 \times 35,000) = 24000000 + 17500000
= 41500000 = 41.5 million [1 million = 1000000]
Total units = 600 + 500 = 1100
Total Revenue = 1100 \times 50,000 = 55 million.

\[
\text{Profit\%} = \frac{\text{Revenue} - \text{Cost}}{\text{Cost}} \times 100
\]
\[
= \frac{55 \text{ million} - 41.5 \text{ million}}{41.5 \text{ million}} \times 100
\]
= \frac{13.5}{41.5} \times 100 = 32.5\%
Hence, option A is correct.
8. Let the cost price of the plan be $P$

Marked price = $1.6P$

Selling price = $0.8(1.6P) = 1.28P$

Service tax = $0.15(1.28P) = 0.192P$

Profit $\% = \frac{(1.28P - 0.192P) - P}{P} \times 100\% = 8.8\%$

Hence, option A is correct.

9. Since B computes actual profit on S.P., actual profit for B = 25% of 1000 = Rs. 250

Since A computes actual profit on C.P., C.P. for A = $\frac{1000}{1.25} = Rs. 800$

∴ Actual profit for A = 25% of 800 = Rs. 200

∴ Required difference = 250 – 200 = Rs. 50

Hence, option D is correct.

10. | Rice A | Rice B |
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<tr>
<td>Cost price</td>
<td>$15 \times x$</td>
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<tr>
<td>↓ 10% profit</td>
<td>↓ 20% profit</td>
</tr>
<tr>
<td>Selling price</td>
<td>$110%$ of $15x$</td>
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<td>= $16.5x$</td>
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Now, $16.5x = 12x + 60 + 30$

or, $4.5x = 90$

∴ $x = \frac{90}{4.5} = Rs. 20$ kg

Now, new selling price of mixture

= $\left[15 \times 20 + 10 \times (20 + 5)\right] \frac{120}{100} = Rs. 660$

∴ SP per kg = $\frac{660}{25} = Rs. 26.4$ per kg

Hence, option A is correct.
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