Profit and Loss Questions for CMAT

Instructions

For the following questions answer them individually

Question 1

Rohit bought 20 soaps and 12 toothpastes. He marked-up the soaps by 15% on the cost price of each, and the toothpastes by Rs.20 on the cost price each. He sold 75% of the soaps and 8 toothpastes and made a profit of Rs.385. If the cost of a toothpaste is 60% the cost of a soap and he got no return on unsold items, what was his overall profit or loss?

A   Loss of Rs.355

B   Loss of Rs.210

C   Loss of Rs.250

D   None of the above

   Answer: A

Explanation:
Let the CP of 1 soap = S
Thus, the CP of 1 toothbrush = 0.6S
Given that, SP of 1 soap = 1.15 S and SP of 1 toothbrush = 0.6S+20
Also, 15*1.15*S + 8*(0.6S+20) - 15S - 8*0.6*S = 385
Thus, solving we get S = 100
Hence, Total CP of 20 soaps and 12 toothbrush = 20*100 + 12*60 = 2720
SP of 15 soaps and 8 toothbrush = 15*1.15*100 + 8*80 = 2365
Thus, the overall loss = 2365 - 2720 = 355 Rs.
Hence, option A is the correct answer.

Question 2

Three years ago, your close friend had won a lottery of Rs. 1 crore. He purchased a flat for Rs. 40 lakhs, a car for Rs. 20 lakhs and shares worth Rs. 10 lakhs. He put the remaining money in a bank deposit that pays compound interest @ 12 percent per annum. If today, he sells off the flat, the car and the shares at certain percentage of their original value and withdraws his entire money from the bank, the total gain in his assets is 5%. The closest approximate percentage of the original value at which he sold off the three items is

A   60 percent

B   75 percent

C   90 percent

D   105 percent

   Answer: C

Explanation:
Hi total gain = 5%
Thus, the amount at the end of 3 years = 105 lakh Rupees
The amount he gets from the bank = $30(1.12)^2 = 42.14784$ lakh rupees
Let x be the percentage at which he sells the assets of worth 70 lakhs
Thus, the amount he gets = 0.7x lakhs
Thus, 70x + 42.1478 = 105
Thus, 70x = 62.8525
Thus, x is closest to 0.90= 90%
Hence, option C is the correct answer.

Question 3

Two men X and Y started working for a certain company at similar jobs on January 1, 1950. X asked for an initial monthly salary of Rs. 300 with an annual increment of Rs. 30. Y asked for an initial monthly salary of Rs. 200 with a rise of Rs. 15 every 6 months. Assume that the arrangements remained unaltered till December 31, 1959. Salary is paid on the last day of the month. What is the total amount paid to them as salary during the period?

A   Rs. 93,300

B   Rs. 93,200

C   Rs. 93,100

D   None of these

   Answer: A

Explanation:
January 1, 1950 to December 31, 1959 is a period of 10 years or 20 half years.
The person X after 1st year gets Rs. 300 in next year he gets Rs. 330 and so on.
So his earning is in AP with 10 300+330+360+...

Similarly earning of Y is in AP with 20 terms 200+215+230+245.... .

So, the total earnings of X equals 12*(300+330+....10 terms) = 52200
The total earnings of Y equals 6*(200+215+230+...20 terms) = 41100

So, the total earnings of the two equals 52200+41100 = 93300

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Question 4

A sum of money compounded annually becomes Rs.625 in two years and Rs.675 in three years. The rate of interest per annum is

A   7%

B   8%

C   6%

D   5%

   Answer: B

Explanation:
As we know, formulae of compound interest for 2 years will be:
$P(1 + \frac{r}{100})^2$ = 625 (Where r is rate, P is principal amount)
For 3 years:
$P(1 + \frac{r}{100})^3$ = 675
Dividing above two equations we will get r=8%

Question 5

If Fatima sells 60 identical toys at a 40% discount on the printed price, then she makes 20% profit. Ten of these toys are destroyed in fire. While selling the rest, how much discount should be given on the printed price so that she can make the same amount of profit?

A   30%

B   25%

C   24%

D 28%

Answer: D

Explanation:

Let the cost price be C and the marked price be M.

Given,

0.6 M = 1.2 C

M = 2C

CP of 60 toys = 60C

Now only 50 are remaining.

Hence,

M (1 - d) * 50 = 72C

1- d = 0.72

d = .28

Hence 28%

Question 6

A dealer buys dry fruits at Rs. 100, Rs. 80 and Rs. 60 per kilogram. He mixes them in the ratio 3 : 4 : 5 by weight, and sells at a profit of 50%. At what price per kilogram does he sell the dry fruit?

A Rs. 80

B Rs. 100

C Rs. 95

D None of these

Answer: D

Explanation:

Let's say he buy fruits of weights 3 kg., 4kg., 5 kg.

So cost price per kg. = $\frac{300+320+300}{9} = \frac{920}{9}$

Selling price = $\frac{920}{12} \times \frac{3}{2}$ = 115 per kg

Hence answer will be D.

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Instructions

Answer the questions based on the following information. A watch dealer incurs an expense of Rs. 150 for producing every watch. He also incurs an additional expenditure of Rs. 30,000, which is independent of the number of watches produced If he is able to sell a watch during the season, he sells it for Rs. 250. If he fails to do so, he has to sell each watch for Rs. 100.

Question 7

If he is able to sell only 1,200 out of 1,500 watches he has made in the season (and the rest 300 are sold out of season), then he has made a profit of

A Rs. 90,000

B Rs. 75,000

C Rs. 45,000

D Rs. 60,000

Answer: B

Explanation:
Cost price per watch = 150
Cost price for 1500 watches = 1500×150 = 225000
Total expense = 225000 + 30000 = 255000
Selling price for season = 1200×250 = 300000
For out of season = 300×100 = 30000
Total selling = 300000 + 30000 = 330000
Profit = 330000 - 255000 = 75000

Instructions
For the following questions answer them individually

Question 8

The price of a Maruti car rises by 30% while the sales of the car come down by 20%. What is the percentage change in the total revenue?

A -4%

B -2%

C +4%

D +2%

Answer: C

Explanation:
let's say price of maruti car is x rs.
Sales = y
revenue = xy
Changed price = 1.3x
changed value of sales = 0.8y
new revenue = 1.04 xy
Percentage change in revenue = 4%

Question 9

A man borrows 6000 at 5% interest, on reducing balance, at the start of the year. If he repays 1200 at the end of each year, find the amount of loan outstanding, in , at the beginning of the third year.

A 3162.75

B 4125.00

C 4155.00

D 5100.00

E 5355.00

Answer: C

Explanation:

Amount man gets after 1 year

= $6000 + (\frac{6000 \times 5 \times 1}{100}) - 1200$

= $6000 + 300 - 1200 = 5100$

∴. Amount at the beginning of third year, i.e. after 2 years

= $5100 + (\frac{5100 \times 5 \times 1}{100}) - 1200$

= $5100 + 255 - 1200 = 4155$

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Question 10

A shopkeeper labelled the price of his articles so as to earn a profit of 30% on the cost price. He,then sold the articles by offering a discount of 10% on the labelled price. What is the actual per cent profit earned in the deal?

A 18%

B 15%

C 20%

D none of these

Answer: D

Explanation:

Let the cost price of the article be Rs.100x.

Marked price = Rs.130x

S.P. of the article = $\frac{130x \times 90}{100}$ = Rs.117x

Actual percent profit = $\frac{117-100}{100} \times 100$

=17%

D is the correct answer.

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