

Q1. A certain sum of money was lent under the following repayment scheme based on Simple Interest:

- 8% per annum for the initial 2 years
- 9.5% per annum for the next 4 years
- 11% per annum for the next 2 years
- 12% per annum after the first 8 years

Find the amount which a sum of Rs9000 taken for 12 years becomes at the end of 12 years.

[level 2, Wirpo, TechM]

- A. 20,200                      B. 19,800                      C. 20,000                      D. 20,160

Ans: D

Solution:

$$\text{Interest} = (9000/100) (8 \times 2 + 9.5 \times 4 + 11 \times 2 + 12 \times 4)$$

$$\text{Amount} = 11160$$

$$\text{Amount} = 9000 + 11160 = 20160$$

Q2. Manish, Rahul and Bharti have some stones with each of them. Five times the number of stones with Rahul equals seven times the number of stones with Manish while five times the number of stones with Manish equals seven times the number of stones with Bharti. What is the minimum number of stones that can be there with all three of them put together

[Level 3, TCS]

- A.113                      B.109                      C.93                      D.9

Ans: B

Solution:

Let the stones with Manish, Rahul and Bharti be m, r, and b respectively.

$$\text{Given, } 5r = 7m \text{ and } 5m = 7b$$

$$\Rightarrow 25r = 35m \text{ and } 35m = 49b$$

$$\Rightarrow 25r = 35m = 49b = k$$

The least possible integral values for r, m, b will be r = 49, m = 35 and b = 25

$$\text{Total} = 49 + 35 + 25 = 109.$$

Q3. If a: b = 7: 5, b: c = 9: 11, find a: b: c?

[level 1, Accenture]

- A. 63: 14: 55                      B. 63: 45: 55                      C. 14: 14: 15                      D. 7: 14: 15

Ans: B

Solution:

$$a : b : c = 7 \times 9 : 5 \times 9 : 11 \times 5 = 63: 45: 55$$

Q4. A dairyman pays Rs.6.4 per liter of milk. He adds water and sells the maximum at Rs. 8 per liter, thereby making 37.5% profit. The proportion of water to milk received by the customers is?

[level 2, Wirpo, TechM]

- A. 1: 15                      B. 1: 10                      C. 1: 20                      D.1: 20

Ans: B

Solution:

$$\text{Mean Cost Price} = \text{Rs } (100/137.5) \times 8 = \text{Rs } 64/11$$

By the rule of allegation,

$$(6.40 - 64/11) : (64/11 - 0) = 1 : 10$$

Q5. Two trains start from stations A and B and travel toward each other at speed of 50 kmph and 60 kmph respectively. At the time of their meeting the second train has travelled 120km more than the first. The distance between A and B is?

[level 2, Infosys]

- A. 990km                      B. 1200km                      C. 1320km                      D. 1440km

Ans: C

Solution:

In 1 hr, faster train covers 10 km extra.

So, for 120 km, it will take 12 hrs.

After 12 hrs, they will meet i.e.  $12 \times (50 + 60) \text{ KM} = 1320 \text{ Km}$

Q6. In one hour, a boat goes 11 km/hr along the stream and 5 km/hr against the stream. The speed of the boat in still water (in km/hr) is: [Level 1, Wipro]

A. 3 km/hr

B. 5 km/hr

C. 8 km/hr

D. 9 km/hr

Ans: C

Solution:

Speed of boat in still water =  $(11 + 5)/2 = 8 \text{ km/hr}$

Q7. A, B and C enter into a partnership by investing Rs.3600, Rs.4400 and Rs.2800. A is a working partner and gets a fourth of the profit for his services and the remaining profit is divided amongst the three in the rate of their investments. What is the amount of profit that B gets if A gets a total of Rs 8000. [level 2, Wirpo, TechM]

A. 4888.88

B. 9333.3

C. 4000

D. 3666.66

Ans: A

Solution:

Let  $100x$  be the total profit.

So,  $75x$  should be shared according to investments i.e.  $36 : 44 : 28 = 9 : 11 : 7$

Profit of A =  $25x + (9/27) \text{ of } 75x = 50x = 8000$

So,  $75x = 12000$

Profit of B =  $11/27 \text{ of } 12000 = 4888.88$

Q8. If the price of petrol increases by 25% and Raj intends to spend only an additional 15% on petrol, by how much will he reduce the quantity of petrol purchased? [Level 2, Accenture, Microsoft]

A. 10 %

B. 12 %

C. 8 %

D. 6.67 %

Ans: C

Solution:

Let he consumes 10 ltr RS 10 so he spends Rs 100

As per question he intends to spend 15% more (of 100 in our case)=Rs 115

and price increased by 25% =Rs. 12.5 (10+25% of 10)

let he reduces quantity by  $X$  lts. then consumed(new reduced) quantity=  $10(1-X/100)$

Spending amount=Price of gasoline\*Quantity

$115=12.5*10(1-X/100)$

$X=8\%$

Q9. I sold two watches for Rs. 300 each, one at a loss of 10% and the other at a profit of 10%. What is the percent loss (-) or the percent profit (+) that resulted from the transaction? [level 2, TechM]

A. (+) 10

B. (-) 1

C. (+) 1

D. 0

Ans: B

Solution:

Loss Percent =  $(10^2/100) = 1\% \text{ Loss}$

Q10. The average temperature on Wednesday, Thursday and Friday was  $25^\circ$ . The average temperature on Thursday, Friday and Saturday was  $24^\circ$ . If the temperature on Saturday was  $27^\circ$ , what was the temperature on Wednesday? [level 1, Capegemini]

A.  $24^\circ$

B.  $21^\circ$

C.  $27^\circ$

D.  $30^\circ$

Ans: D

Solution:

$$(we+th+fr)/3 = 25^0$$

$$(th+fr+sa)/3 = 24^0$$

$$sa = 27^0$$

$$we = ?$$

Multiply the average expressions by 3:

$$we+th+fr = 75^0$$

$$th+fr+sa = 72^0 ; \text{ subtract } sa = 27^0$$

$$th+fr = 45^0 ; \text{ subtract this from } we+th+fr = 75^0$$

$$we = 30^0$$

Q11. A house owner wants to get his house painted. He is told that this would require 45 kg of paint. Allowing for 6.25% wastage and assuming that the paint is available in 4 kg tins, the number of tins required for painting the house? [Level 2, TCS]

A. 18

B. 11

C. 14

D. 12

Ans: D

Solution:

$$\text{Total paint required} = 45 + \text{wastage} = 45 + x$$

$$x/(45 + x) * 100 = 6.25$$

$$100x = 281.25 + 6.25x$$

$$x = 3\text{kg}$$

$$\text{Total number of tins} = (45 + 3)/4 = 12 \text{ tins}$$

Q12. Ramesh bought two boxes for Rs. 1300. He sold one box at a profit of 20% and the other box at a loss of 12%. If the selling price of both boxes is the same, Find the cost price of each box.

[Level 2, Wipro]

A. 650,650

B. 550,750

C. 450,850

D. None of these

Ans: B

Solution:

$$\text{Since Profit\% is 20; CP1} = 5, \text{ SP1} = 6$$

$$\text{Since Loss\% is 12; CP2} = 25, \text{ SP2} = 22$$

$$\text{Since Selling price of both are equal, SP1} = \text{SP2} = 66$$

$$\text{So, CP1} = 55, \text{ CP2} = 75$$

$$\text{So, CP1} + \text{CP2} = 1300$$

$$55 + 75 = 1300$$

$$1 = 10$$

$$\text{CP1} = 550, \text{ CP2} = 750$$

Q13. The average wages of a worker during a fortnight comprising 15 consecutive working days was Rs.90 per day. During the first 7 days, his average wages was Rs.87/day and the average wages during the last 7 days was Rs.92 /day. What was his wage on the 8<sup>th</sup> day? [level 2, Wirpo, TechM]

A. 83

B. 92

C. 90

D. 97

Ans: D

Solution:

$$\text{Total wage for 15 days} = 90 \times 15$$

$$\text{Total wage for first 7 days} = 87 \times 7$$

$$\text{Total wage for last 7 days} = 92 \times 7$$

$$\text{Wages for 8}^{\text{th}} \text{ day} = 90 \times 15 - (87 \times 7 + 92 \times 7) = 97$$

Q14. 45men can complete a work in 16 days. Six days after they started working, 30more men joined them. How many days will they now take to complete the remaining work? [Level 2, Wipro]

A. 5days      B. 6days      C. 3day      D. NOT

Ans: B

Solution:

Use  $M1D1 = M2D2$

Q15. Taps A and b can fill a bucket in 12 min and 15 min respectively. If both are opened and A is closed after 3 min, how much further time would it take for B to fill the bucket?

[level 2, Accenture]

A. 7min 45sec    B. 7min 15sec      C. 8min 5sec      D. 8min 15sec

Ans: D

Solution:

Total Work = LCM (12, 15) = 60

A does in 1 min =  $60/12 = 5$  units

B does in 1 min =  $60/15 = 4$  units

In 3 min work completed =  $3 \times (4 + 5) = 27$

Remaining work be completed by B in  $(60 - 27)/4 = 8 \text{ min } 15 \text{ sec}$