

CAT Quantitative Aptitude Questions for Practice Set 4 - Solutions

Difficulty Level – Easy

1. (C)

Let the total work is 300 units (LCM of 150,100 and 60)

A's per day work = 2 units

B's per day work = 3 units

C's per day work = 5 units

(A + B + C)'s per day work = $2 + 3 + 5 = 10$ units

Time taken = $300/10 = 30$ Days

2. (A)

Food for 80 person = 150 days

Food for 1 person = $150 * 80$

Food for 150 person = $(150 * 80/150)$

= 80 days

3. (A)

Total days taken by Mahesh alone = $45 * 4 = 180$ days

Let the total work = 180 units (LCM of 180 and 60)

Mahesh per day work = 1 units

Mahesh and Anand per day work = $180/60 = 3$ units

Anand per day work = $3 - 1 = 2$

Time taken = $180/2 = 90$ days

4. (C)

Let total work is 60 (LCM of 20, 12 & 15)

Per day work

(Raj + Mohan) = 3 units

(Mohan + Sohan) = 5 units

(Raj + Shohan) = 4 units

(Raj + Mohan + Sohan) = $(3 + 5 + 4)/2 = 6$ units

Raj's per day work = $6 - 5 = 1$ unit

Total time taken by Raj = 60 days

5. (A)

$(20 * 18 * 10)/1500 = (45 * 16 * 4)/Q$

$Q = 1200$ tons

6. (D)

Speed of A with respect to B

$AB = 36 - 24 = 12$ km/hr

Time taken by A to catch B

$AB = 120/12 = 10$ hours

7. (C)

$$\begin{aligned}\text{Length} &= (108 \times 5) / 18 \times 8 \\ &= 240 \text{ meters}\end{aligned}$$

8. (D)

$$\begin{aligned}\text{Sum of length} &= (72 \times 5 / 18) \times 73 \\ &= 1460 \text{ m}\end{aligned}$$

$$\begin{aligned}\text{Length of platform} &= 1460 - 422 \\ &= 1040 \text{ m}\end{aligned}$$

9. (A)

$$\begin{aligned}\text{Difference between the speed} &= 90 \text{ km/hr} \\ &= 90 \times 5 / 18 = 25 \text{ m/s}\end{aligned}$$

$$\begin{aligned}\text{Time taken} &= (640 + 480) / 25 \\ &= 44.8 \text{ seconds}\end{aligned}$$

10. (C)

$$\begin{aligned}\text{CI } 6^{\text{th}} \text{ year} &= \text{CI } 5^{\text{th}} \text{ year} \times 1.25 \\ &= 900 \times 1.25 \\ &= \text{Rs. } 1125\end{aligned}$$

11. (C)

$$\begin{aligned}\text{CI}_7 - \text{CI}_6 &= 1450 - 1250 \\ &= \text{Rs. } 200 \\ \text{Rate of interest} &= (200 / 1250 \times 100) \\ &= 16\% \text{ per annum}\end{aligned}$$

12. (A)

$$\text{Net \% change} = -20 - 40 + \frac{20 \times 40}{100} = -52$$

So, 52% decrease

13. (C)

$$\begin{aligned}\text{New area} &= 1.6 \times 1.6 \times \text{diagonal area} \\ &= 2.56 \times \text{original area} \\ \text{So, area increased by } &156\%\end{aligned}$$

14. (C)

$$\begin{aligned}15 \text{ SP} &= 21 \text{ CP} \\ \text{SP/CP} &= 1.4 \\ \text{So, profit percentage} &= 40\%\end{aligned}$$

15. (A)

$$\begin{aligned}\text{Let CP} &= 100 \\ \text{SP} &= 135 \\ \text{Profit \%} &= 305 / 100 \times 100 \\ &= 305\%\end{aligned}$$

16. (D)

$$11x - 3x = 8x = 1152$$

$$x = 144$$

$$(II + III) = 5x + 11x = 16x$$

$$= 2304$$

17. (A)

$$P/Q * Q/R * R/S = 3/8 * 5/4 * 16/15$$

$$P/S = 1/2$$

18. (D)

Work done by 10 men = work done by 16 women

Work done by 15 men = work done by $(16 * 3/2)$ women

= 24 women

So, 40 women and 15 men = 40 women and 24 women

= 64 women

Therefore we can say

16 women will take 40 days

Hence, 64 women will take $40/4 = 10$ days

19. (B)

Distance is same. So, speed will be inversely proportional to time.

Ratio of time taken by car and motorcycle = 28 : 20

= 7 : 5

So, ratio of speed of car and motorcycle = 5 : 7

$$5/7 = 32/M$$

$$M = (32 * 7)/5 = 44.8 \text{ km/hr}$$

20. (B)

Let the capacity of container be 70L (LCM of 5, 7 & 10)

Now,

I container, milk = 28L

Water = 42L

II container, milk = 20L

Water = 50L

III container, milk = 21L

Water = 49L

In large container, milk = $(28 + 20 + 21)$

= 69L

Water = $42 + 50 + 49$

= 141L

Milk : Water = 23 : 47