Celstream Placement Paper Questions

Q1. It was calculated that 75 men could complete a piece of work in 20 days. When work was scheduled to commence, it was found necessary to send 25 men to another project. How much longer will it take to complete the work?

a.20
b.30
c.45
d.40

ANS: B

Explanation:
Before:
One day work = 1 / 20
*One man's one day work = 1 / (20 * 75)*
Now:
No. Of workers = 50
*One day work = 50 * 1 / (20 * 75)*
*The total no. of days required to complete the work = (75 * 20) / 50 = 30*

Q2. In a management company 6 boys and 8 Girls can do a piece of work in 10 days while 26 boys and 48 womens can do the same in 2 days. Find the time taken by 15 Boys and 20 Girls in doing the same type of work?

a.7 days
b.5 days
c.6 days
d.4 days

ANS: d

Explanation:
Let one man's work for one day be x and

Let one boy's work for one day be y
Then 6x + 8 y = 1/10 -> eq 1
26x + 48 y = 1/2 -> eq 2
Multiply eq 1 by 6 on both sides:
36 xs + 48 y = 3/5 -> eq 3
Eq 3 – eq 2:
36x + 48y – 26x + 48y = 3/5 – ½
10x = 1/10 So x = 1/100 and y = 1/200
Amount of work that can be done by15 Boys and 20 Girlsin one day = (15/100 + 20/200) = ¼
Therefore 15 men and 20 boys can do the work in 4 days.

Q3. In a journey of 15 miles two third distance was travelled with 40 mph and remaining with 60 mph.How much time the journey takes

a. 40 min
b. 30 min
c. 120 min
d. 20 min

ANS: d

Q4. To 15 lts of water containing 20% alcohol, we add 5 lts of pure water. What is % alcohol.

a. 20%
b. 34%
c. 15%
d. 14%

ANS: c

Q5. A man divides Rs.8600 among 5 sons,4 daughters and 2 nephews. If each daughter receives four times as much as each nephew, and each son receives five times as much as each nephew, how much does each daughter receive?

a.900
b.500
c.800
d.700

ANS: c

Explanation:

Let the share of each nephew be Rs.x
Then, share of each daughter = Rs.(4x); share of each son = Rs.(5x).
*So, 5 * 5x + 4 * 4x + 2 * x = 8600*
=> 25x + 16x + 2x = 8600 => 43x = 8600
*=> x = 200. Therefore, Share of each daughter = Rs. (4 * 200) = Rs.800*

Q6. Kumar spends 75% of his income. His income is increased by 20% and he increased his expenditure by 10%. Find the percentage increase in his savings.

a.10%
b.20%
c.40%
d.50%

ANS: d

Explanation:

Let original income = Rs. 100. Then, expenditure = Rs.75 and savings = Rs. 25.
*New income = Rs.120 & New expenditure = Rs.[110/100 * 75] = Rs.165/2*
New savings = Rs.[120-165/2] = Rs.75/2
Increase in savings = Rs.[75/2 - 25] = Rs. 25/2
*Therefore, Increase% = [25/2 * 1/25 * 100]% => 50%*

Q7. Two pipes A and B can fill a tank in 36 min. and 45 min. respectively. A water pipe C can empty the tank in 30 min. First A and B are opened. After 7 minutes, C is also opened. In how much time, the tank is full?

a.45 min
b.39 min
c.46 min
d.50 min

ANS: c

Explanation:

Part filled in min. = 7[1/36 + 1/45] = 7/20
Remaining part = [1-7/20] = 13/20
Net part filled in 1 min. when A,B and C are opened = [1/36 + 1/45 - 1/30] = 1/60
Now, 1/60 part is filled in 1 min.
*13/20 part is filled in [60 * 13/20] = 39 min.*
Therefore, Total time taken to fill the tank = (39+7)min. => 46 min.

Q8. A cricketer has a certain average for 10 innings. In the eleventh inning, he scored 108 runs, thereby increasing his average by 6 runs. His new average is :

a.38
b.42
c.48
d.56

ANS: c

Explanation:

Ex: Let average for 10 innings be x. Then,
10x + 108/11 = x+6
=> 11x+66 = 10x+108 => x=42.
Therefore, New Average = (x+6) = 48 runs.

Q9. Present ages of Abi and Suji are in the ratio of 5:4 respectively. Three years hence, the ratio of their ages will become 11:9 respectively. What is Suji's present age in years?

a.24 years
b.25 years
c.26 years
d.22 years

ANS: a

Explanation:
Let the present ages Abi and Suji be 5x years and 4x years respectively.
Then, 5x+3 / 4x+3 = 11/9
=> 9(5x+3) = 11(4x+3) => x=6.
Therefore, Suji's present age = 4x = 24 years.

Q10. Pranav spends 30% of his monthly income on food articles, 40% of the remaining on conveyance and clothes and saves 50% of the remaining. If his monthly salary is Rs.18400, how much money does he save every month?

a.3468
b.3864
c.3644
d.3684

ANS: b

Explanation:
Saving = 50% of (100-40)% of (100-30)% of Rs.18400
*=> Rs. 50/100 * 60/100 * 70/100 * 18400 => 3864*
Therefore, he saves Rs.3864.

Q11. If the man walks at the rate of 5 kmph, he misses a train by 7 minutes. However, if he walks at the rate of 6 kmph, he reaches the station 5 minutes

before the arrival of the train. Find the distance covered by him to reach the station.

a.7
b.8
c.6
d.5

ANS: c

Explanation:
Let the required distance be x km.
Difference in the times taken at two speeds = 12 min = 1/5 hr.
=> x/5 - x/6 = 1/5
=> 6x-5x = 6 => x=6
Hence, the required distance is 6 km.

Q12. The profit earned by selling an article for Rs.832 is equal to the loss incurred when the same article is sold for Rs.448. What should be the sale price for making 50% profit?

a.900
b.860
c.960
d.780

ANS: c

Explanation:
Let C.P = Rs.x.
Then, 832 - x = x-448
=> 2x = 1280 => x=640
*=> 150% of Rs.640 = Rs. 150/100 * 640 => Rs.960*
Therefore, Required S.P = Rs.960

Q13. Suresh borrowed some money at the rate of 6% p.a. for the first three years, 9% p.a. for the next five years and 13% p.a. for the period beyond eight years. If the total interest paid by him at the end of 11 years is Rs.8160, how much money did he borrow?

a.8000
b.6000
c.9000
d.5000

ANS: a

Explanation:

Let the sum be Rs.x. Then,
*= [x*6*3/100] + [x*9*5/100] + [x*13*3/100] = 8160*
*=>18x+45x+39x = (8160*100)*
=> 102x = 816000
Therefore, x=8000.

Q14. What will be the cost of gardening 1 metre broad boundary around a rectangular plot having perimeter of 340 metres at the rate of Rs.10 per square metre?

a.4500
b.3640
c.4400
d.3440

ANS: d

Explanation:

2(l+b) = 340
Area of the boundary [(l+2)(b+2)-lb]
=> 2(l+b)+4 = 344
*Therefore, Cost of gardening = Rs.(344*10) = Rs.3440*

Q15. The diameter of the driving wheel of a bus in 140 cm. How many revolutions per minute must the wheel make in order to keep a speed of 66 kmph?

a.340
b.250
c.300
d.440

ANS: b

Explanation:

*Distance to be covered in 1 min. = [66*1000/60]m = 1100m*
*Circumference of the wheel = [2*22/7*0.70]m = 4.4m.*
Number of revolutions per min. = 1100/4.4 = 250