Wipro Aptitude Questions and Answers Set - I

1. Priya take 8 hours to draw 60 pages on a computer while parul takes 6 hours to draw 45 pages on computer. If both are working together in how much time will they draw a lot of 120 pages?

A. 8hrs
B. 7hrs
C. 9hrs
D. 11hrs

Answer – A. 8hrs
Explanation:
First calculate no of pages they draw in one hour. For priya it is 60/8 and for parul it is 45/6.
Now total pages they draw in one hour is 60/8 + 45/6 = 15
So to print 120 time they will take = 15*X = 120. So X = 8hrs

2. A can finish a work in 15 days and B can finish the work in 25 days. Both of them start working together but B leaves the work 3 days prior to the completion. After how many days B quit the work.

A. 7.5
B. 8
C. 8.5
D. 9

Answer – A. 7.5
Explanation:
Let 'X' days they take to complete the whole work.
(1/15 + 1/25)*(X-3) + 3* (1/15), X = 10.5 days. So he quits after 7.5 days.

3. A contractor undertook a job and employed 40 men to do a piece of work in 80 days. But after 60 days he found that only 3/5 of the work is completed. To complete the work in time, how many more men he should employ.

A. 15
B. 20
C. 25
D. 40

Answer – D. 40
Explanation:
(40*60)/3 = (x*20)/2

x=80
No of men required=80-40 =40

4. P, Q and R can complete a piece of work in 9, 18 and 27 days respectively. After 1/3 work is completed P left the work and the remaining work is completed by Q and R together. Find the days required to complete the remaining work.

A. 36/7
B. 35/6
C. 36/5
D. 32/5

Answer – C. 36/5
Explanation:
1/3 work is completed so remaining work is 2/3. As P left the job so remaining work will be completed by Q and R. Take X no. of days Q and R take to complete the work.
(1/18 + 1/27)*X = 2/3. So, X = 36/5

5. A is 25% more efficient than B. C does half the work done by A & B together. If C alone does the work n 30 days, then A alone can do the work in

A. 32 days
B. 27 days
C. 22 days
D. 25(1/2) days
E. None of these

Answer - B. 27 days
Explanation:
A's one day's work:B's one days work = 125:100 = 5:4
Let A's & B's one day's work be 5x and 4x days
Then C's one day's work = 9x/2
= > 9x/2 = 1/30
= > x = ((1/30)*(2/9)) = 1/135
A's one day's work = 5/135 = 1/27
Therefore, A alone can do the work in 27 days

6. P can finish a work in 27 days, Q in 9 days and C in 12 days. Q & R start the work but are forced to leave after 4 days. The remaining work done by P in:

A. 6 days

B. 9 days
C. 10 days
D. 12 days
E. None of these

Answer - A. 6 days
Explanation:
(Q+R)'s one day's work = 1/9+1/12 = 7/36
Q & R in 3 days = 4*7/36 = 7/9
Remaining work = 1-(7/9) = 2/9
1/27 work is done by A in 1 day.
2/9 work is done by A in 27*2/9 = 6 days

7. 4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 20 women complete it?

A. 10 days
B. 15 days
C. 20 days
D. 25 days
E. None of these

Answer - C. 20 days
Explanation:
1 man's 1 day's work = x days
1 woman's 1 day's work = y
Then, 4x+6y = 1/8 and 3x+7y = 1/10.
Solving these two equations y = 1/400
1 woman's 1 day's work = 1/400
20 women = 20/400 = 1/20 = 20 days
Therefore, 20 women can complete the work in 20 days.

8. A boat takes 120min less to travel 30km downstream than to travel the same distance upstream.If the speed of the boat in still water is 8kmph then the speed of the stream is

A. 2 kmph
B. 8 kmph
C. 3 kmph
D. 4 kmph
E. None of these

Answer - A. 2 kmph
Explanation:
Speed of the stream = x
(30/8-x) – (30/8+x)= 120/60 = 2/1
30(8+x) – 30(8-x) = 2[64 – x2] 240+30x-240x+30x = 2[64 – x2] 60x = 128- 2x2
2x2+60x-128 = 0
x2+30x-64 = 0
(x+32)(x-2) = 0
X=2 kmph

9. A boat running downstream covers a distance of 24km in 4hrs, while for covering the same distance upstream it takes 6hrs, what is the speed of the boat in still water ?

A. 12kmph
B. 10kmph
C. 5kmph
D. 7kmph
E. None of these

Answer - C. 5kmph
Explanation:
24/x-y = 6
6x – 6y = 24-----------(1)
24/x+y = 4
4x+4y = 24----------------(2)
24x – 24y = 96
24x+24y = 144
Solve abv 2 equ
48x = 240
X = 240/48 = 5

10. A boat can travel 4.2km upstream in 14min. If the ratio of the speed of the boat in still water to the speed of the stream is 7:1. How much time will the boat take to cover 17.6km downstream ?

A. 56min
B. 44min
C. 32min
D. 48min
E. None of these

Answer - B. 44min
Explanation:
Speed = 7x:x
Downstream = 8x; upstream = 6x
Upstream speed = 4.2*60/14 = 18kmph
6x = 18
X = 3
Downstream = 8*3 = 24
Time taken for 17.6km = 17.6*60/24 = 44min

11. A man can row at 4 kmph in still water. If the velocity of the current is 1 kmph and it takes him 1 hour to row to a place and come back. how far is that place.

A. 1.8 km
B. 2.6 km
C. 1.5 km
D. 3.2 km
E. None of these

Answer - A. 1.8 km
Explanation:
Let the distance is x km
Rate downstream = 4 + 1 = 5 kmph
Rate upstream = 4 – 1 = 3 kmph
then
x/5 + x/3 = 1
3x + 5x = 15
x = 15/8 = 1.8 km

12. Arun takes thrice as long to row a distance against the stream as to row the same distance in favour of the stream. The ratio of the speed of the boat in still water and stream is

A. 3:1
B. 1:2
C. 2:1
D. 2:3
E. None of these

Answer - C. 2:1
Explanation :
speed downstream = x kmph

Speed upstream = 3x kmph
(3x+x)/2 : (3x-x)/2
4x/2 : 2x/2 = 2:1
Therefore, The ratio of the speed of the boat in still water and stream is 2:1

13. A boat takes 30 hours for travelling downstream from point A to point B and coming back to point C midway between A and B. If the velocity of the stream is 2 kmph and the speed of the boat in still water is 15 kmph, what is the distance between A and B?

A. 342km
B. 356km
C. 316km
D. 308km
E. None of these

Answer - D. 308km
Explanation :
velocity of the stream = 2 kmph
Speed of the boat in still water is 15 kmph
Speed downstream = (15+2) = 17 kmph
Speed upstream = (15-2) = 13 kmph
Let the distance between A and B be x km
x/17+(x/2)/13=30
x/17+x/26=30
43x/442=30
x=30*442/43 = 308.37 = 308km
Therefore, Distance between A and B = 308 km

14. A train running with 72km/hr takes 20sec to cross a platform 200 m long. How much it takes to cross a stationary train having twice the length of platform.

A. 20 sec
B. 30 sec
C. 40 sec
D. 50 sec
E. None of these

Answer – B. 30 sec
Explanation :
200+L = 72*(5/18)*20. L= 200m.
400 + 200 = 72*(5/18)*t. So, t = 30 sec

Therefore, the time taken to cross a stationary train is 30 sec.

15. A train travelling with 54 km/hr takes 20 second to cross a bridge. Another train 70 meter shorter crosses the same bridge at 36 km/hr. Find the time taken by the second train to cross the bridge.

A. 23 sec
B. 24 sec
C. 25 sec
D. 26 sec
E. None of these

Answer – A. 23 sec
Explanation :
Let L and B are length of train and bridge respectively.
L + B = 54*5/18*20 = 300 meter
L + B – 70 = 36*5/18*t = 230, se we get t = 23 sec
Therefore, the time taken by the second train to cross the bridge is 23 sec.

16. 20 by weight. He in total gets 20% profit by selling the first two and at last he finds he has no gain or no loss in selling the whole quantity which he had. What was the percentage loss he suffered for the third quantity?

A. 30%
B. 40%
C. 20%
D. 50%

Answer - B. 40%
Explanation:
Total quantity rate =
(12 * 100 + 15 * 80 + 20 * 60) = 3600
For first 2 quantity, (12 * 100) + (15 * 80) = 2400
But he gets 20% profit = 2400 * 1.2 = 2880
So the third quantity = 3600 – 2880 = 720
Actual third quantity rate = 20 * 60 = 1200
Loss suffered = (1200 - 720) / 1200
= 480/1200 = 40 %
Therefore, the percentage of loss he suffered for the third quantity is 40%.

17. Rs.1200 is divided among A,B,C so that A receives half so much as B and B half as much as C. Then B's share is

A. Rs.423
B. Rs.343
C. Rs.356
D. Rs.387
E. None of these

Answer - B. Rs.343
Explanation:
Let C = x
x: 2X : 4X = 1:2 :4
B =1200*2/7 = 342.8 = 343
Therefore, the share of B is 343

18. Naren received Rs.8000 as his share out of the total profit of Rs.12000 which he and Praba earned at the end of one year. If Naren invested Rs.20,000 for 6 months, whereas Praba invested his amount for the whole year , what was the amount invested by Praba ?

A. Rs.2,000
B. Rs.8,000
C. Rs.6,000
D. Rs.5,000
E. None of these

Answer - D. Rs.5,000
Explanation :
P = 8000:4000 = 2:1
20000*6 : x*12 = 2:1
20000:2x = 2:1
20000/2x =2/1
2X = 20000*1/2 =>x = 5,000
Therefore, the amount invested by Praba is 5,000.

19. A,B and C started a shop by investing Rs.27000, Rs.48000 and Rs.63000 respectively. At the end of the year the profits were distributed among them.If B's share of profit be Rs.19200, then the total profit was

A. Rs.55000
B. Rs.52000

C. Rs.52550
D. Rs.55200
E. None of these

Answer - D. Rs.55200
Explanation :
A:B:C = 27:48:63 = 9:16:21
16x/46 = 19200
X = 19200*46/16 = 55200
Therefore, the total profit is Rs. 55200

20. A sum of money is divided among P,Q,R and S in the ratio 5:4:7:9 respectively. If the share of P is Rs.2300 more than that of Q, then what is the total amount of R and S together ?

A. Rs.36800
B. Rs.36000
C. Rs.35000
D. Rs.37200
E. None of these

Answer - A. Rs.36800
Explanation :
5x-4x = 2300
X = 2300
R = 7*2300 = 16100
S = 9*2300 = 20700
R+S = 36800
Therefore, the total amount of R and S together is Rs. 36800.

21. A box contains 30 electric bulbs, out of which 8 are defective. Four bulbs are chosen at random from this box. Find the probability that at least one of them is defective?

A. 432/783
B. 574/783
C. 209/784
D. 334/784
E. None of these

Answer – B. 574/783
Explanation :

1 – 22c4/30c4 = 1 – 209/783 = 574/783

22. Two person A and B appear in an interview. The probability of A's selection is 1/5 and the probability of B's selection is 2/7. What is the probability that only one of them is selected?

A. 11/35
B. 12/35
C. 13/35
D. 17/35
E. None of these

Answer – C. 13/35
Explanation :
A selects and B rejects + B selects and A rejects = (1/5)*(5/7) + (4/5)*(2/7) = 13/35

23. An apartment has 8 floors. An elevator starts with 4 passengers and stops at 8 floors of the apartment. What is the probability that all passengers travels to different floors?

A. 109/256
B. 135/256
C. 105/256
D. 95/256
E. None of these

Answer – C. 105/256
Explanation :
Total outcomes = 8*8*8*8
Favourable outcomes = 8*7*6*5 (first person having 8 choices, after that second person have 7 choices and so on)
So, probability = 105/256

24. A speak truth in 60% cases and B in 80% cases. In what percent of cases they likely to contradict each other narrating the same incident?

A. 9/25
B. 7/25
C. 11/25
D. 13/25
E. None of these

Answer – C. 11/25
Explanation :
P(A) = 3/5 and P(B) = 4/5. Now they are contradicting means one is telling truth and other telling the lie. So,
Probability = (3/5)*(1/5) + (2/5)*(4/5)

25. A 4- digit number is formed by the digits 0, 1, 2, 5 and 8 without repetition. Find the probability that the number is divisible by 5.

A. 1/5
B. 2/5
C. 3/5
D. 4/5
E. None of these

Answer – B. 2/5
Explanation :
Total possibility = 5*4*3*2
Favourable outcomes = 2*4*3*2 (to be divisible by 5 unit digit can be filled with only 0 or 5, so only two possibilities are there, then the remaining can be filled in 4, 3 and 2 ways respectively)
so probability = 2/5

26. A bag contains 8 blue and 7 green balls. 2 balls are drawn one by one without replacement. What is the probability that the balls are alternately of different colors?

A. 9/21
B. 8/17
C. 5/14
D. 8/15
E. 9/19

Answer - D. 8/15
Explanation:
When 1st is blue, prob. = 8/15 * 7/14 = 4/15
When 1st is green, prob. = 7/15 * 8/14= 4/15
Add both cases = 8/15

27. A bag contains 8 blue and 7 green balls. A ball is drawn out of it and put back in the bag. Then a ball is drawn again. What is the probability that both the balls are green?

A. 36/225
B. 48/221
C. 49/225
D. 40/221
E. None of these

Answer - C. 49/225
Explanation:
7/15 * 7/15 = 49/225

28. The batting average of a batsman for 20 innings is 35 and the difference b/w the runs of best inning and worst inning is 50. If these two innings are not included the average becomes 32 for 18 innings. The best score of the batsman is.

A. 91
B. 77
C. 87
D. 82

Answer – C. 87
Explanation :
35*20 = 700.
Best(B) – Worst(W) = 50
700 – B – H = 18*32= 576. B+H = 124 and B-H = 50. So B =87

29. The average age of 5 children of a family is 10 years but if we include the age of father and mother then the average age becomes 22 years. It is given that father age is 6 years more than the mother so what will be the age of mother at present.

A. 47
B. 48
C. 49
D. 50

Answer – C. 49
Explanation :
sum of age of children = 50
50 + M+ F = 22*7 = 154.
M+F = 104 and F= M+6 . So, M = 49

30. The average age of a class of 20 students is 12 years. Out of which one student whose age is 10 year left the class and two new boys entered the class. The average of the class remains the same and the difference between the ages of new boys is 4 year. What will be the age of younger one .

A. 8
B. 9
C. 10
D. 11

Answer – B. 9
Explanation :
240 – 10 + a+ b = 21 * 12
a+ b =22, a-b = 4. So, b= 9