

Crossover Drill - Practice Test - 4 (Quantitative Aptitude) (Self Assessment Test for Placement Drive - 2023 - 24)

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Two consecutive numbers are removed from the progression 1, 2, 3, ...n. The arithmetic mean of the remaining numbers is $26 \frac{1}{4}$. The value of n is 1 point

- ☐ 60
- ☐ 81
- ☒ 50
- ☐ Cannot be determined

[Clear selection](#)



A certain function f satisfies the equation $f(x)+2*f(6-x)=x$ for all real numbers x . The value of $f(1)$ is 1 point

- ☐ 1
- ☐ 2
- ☒ 3
- ☐ Can not be determined

Clear selection

The five tyres of a car (four road tyres and one spare) were used equally in a journey of 40,000 kms. The number of kms of use of each tyre was 1 point

- ☐ 40000
- ☐ 10000
- ☐ 32000
- ☒ 8000

Clear selection

Which of the following numbers must be added to 5678 to give a remainder of 35 when divided by 460? 1 point

- ☐ 955
- ☐ 980
- ☒ 797
- ☐ 618

Clear selection



The average marks of 3 students A, B and C is 60. When another student D joins the group, the new average becomes 56 marks. If another student E, who has 3 marks more than D, joins the group, the average of the 4 students B, C, D and E becomes 55 marks. How many marks did A get in the exam? 1 point

- ☐ 50
- ☐ 54
- ☒ 51
- ☐ 53

Clear selection

The rupee/coin changing machine at a bank has a flaw. It gives 10 ten rupee notes if you put a 100 rupee note and 10 one rupee coins if you insert a 10 rupee note but gives 10 hundred rupee notes when you put a one rupee coin! Sivaji, after being ruined by his rivals in business is left with a one rupee coin and discovers the flaw in the machine by accident. By using the machine repeatedly, which of the following amounts is a valid amount that Sivaji can have when he gets tired and stops at some stage (assume that the machine has an infinite supply of notes and coins): 1 point

- ☐ 26975
- ☒ 53947
- ☐ 18980
- ☐ 33966

Clear selection



How many 6 digit even numbers can be formed from digits 1, 2, 3, 4, 5, 6, and 7 so that the digit should not repeat and the second last digit is even? 1 point

- ☐ 6480
- ☐ 320
- ☐ 2160
- ☒ 720

Clear selection

In how many ways can the letters of the English alphabet be arranged so that there are seven letter between the letters A and B, and no letter is repeated 1 point

- ☐ $24P7 * 2 * 18!$
- ☒ $36 * 24!$
- ☐ $24P7 * 2 * 20!$
- ☐ $18 * 24!$

Clear selection



Professor absentminded has a very peculiar problem, in that he cannot remember numbers larger than 15. However, he tells his wife, I can remember any number up to 100 by remembering the three numbers obtained as remainders when the number is divided by 3, 5 and 7 respectively. For example (2,2,3) is 17. Professor remembers that he had (1,1,6) rupees in the purse, and he paid (2,0,6) rupees to the servant. How much money is left in the purse?

1 point

- ☐ 59
- ☐ 61
- ☐ 49
- ☒ 56

Clear selection

Find the probability that a leap year chosen at random will have 53 Sundays.

1 point

- ☐ 1/7
- ☒ 2/7
- ☐ 1/49
- ☐ 3/7

Clear selection



What is the number of ways of expressing 3600 as a product of three ordered positive integers (abc, bca etc. are counted as distinct). For example, the number 12 can be expressed as a product of three ordered positive integers in 18 different ways.

1 point

- ☐ 441
- ☒ 540
- ☐ 84
- ☐ 2100

Clear selection

Two vehicles A and B leaves from city Y to X. A overtakes B at 10:30 am and reaches city X at 12:00 pm. It waits for 2 hrs and return to city Y. On its way it meets B at 3:00 pm and reaches city Y at 5:00 pm. B reaches city X, waits for 1hr and returns to city Y. After how many hours will B reach city Y from the time A overtook him from the first time?

1 point

- ☐ 50 hrs
- ☐ 49.5 hrs
- ☒ 41.5 hrs
- ☐ 37.5 hrs

Clear selection



You have been given a physical balance and 7 weights of 52, 50, 48, 44, 45, 46 and 78 kgs. Keeping weights on one pan and object on the other, what is the maximum you can weigh less than 183 kgs. 1 point

- ☒ 180
- ☐ 181
- ☐ 182
- ☐ 178

Clear selection

Find the number of zeroes in the expression
 $15 \times 32 \times 25 \times 22 \times 40 \times 75 \times 98 \times 112 \times 125$

1 point

- ☐ 12
- ☒ 9
- ☐ 14
- ☐ 7

Clear selection



There is a lot of speculation that the economy of a country depends on how fast people spend their money in addition to how much they save. Auggie was very curious to test this theory. Auggie spent all of his money in 5 stores. In each store, he spent Rs.4 more than one-half of what he had when he went in. How many rupees did Auggie have when he entered the first store? 1 point

- ☒ 248
- ☐ 120
- ☐ 252
- ☐ 250

Clear selection

When Usha was thrice as old as Nisha, her sister Asha was 25, When Nisha was half as old as Asha, then sister Usha was 34. their ages add to 100. How old is Usha? 1 point

- ☐ 37
- ☐ 44
- ☐ 45
- ☒ 40

Clear selection



The remainder when $m + n$ is divided by 12 is 8, and the remainder when $m - n$ is divided by 12 is 6. If $m > n$, then what is the remainder when mn divided by 6? 1 point

- ☐ 3
- ☐ 4
- ☐ 2
- ☒ 1

Clear selection

A certain sum of money is sufficient to pay either George's wages for 15 days or Mark's wages for 10 days. For how long will it suffice if both George and Mark work together? 1 point

- ☐ 8
- ☒ 6
- ☐ 9
- ☐ 5

Clear selection



Anand packs 304 marbles into packets of 9 or 11 so that no marble is left. 1 point

Anand wants to maximize the number of bags with 9 marbles. How many bags does he need if there should be at least one bag with 11 marbles.

- ☐ 33
- ☒ 32
- ☐ 31
- ☐ 30

Clear selection

You need a 18% acid solution for a certain test, but your supplier only ships a 1 point

13% solution and a 43% solution. You need 120 lts of the 18% acid solution. the 13% solution costs Rs 82 per ltr for the first 67 ltrs, and Rs 66 per ltr for any amount in excess of 67 ltrs. What is the cost of the 13% solution you should buy?

- ☐ 8002
- ☐ 7012
- ☒ 7672
- ☐ 7342

Clear selection



A spherical solid ball of radius 58 mm is to be divided into eight equal parts by cutting it four times longitudinally along the same axis. Find the surface area of each of the final pieces thus obtained(in mm^2) ? (where $\pi = \frac{22}{7}$) 1 point

- ☐ 3365 π
- ☒ 5046 π
- ☐ 1682 π
- ☐ 3346 π

Clear selection

There is a 7-digit telephone number with all different digits. If the digit at extreme right and extreme left are 5 and 6 respectively, find how many such telephone numbers are possible? 1 point

- ☐ 120
- ☐ 30240
- ☐ None of these
- ☒ 6720

Clear selection

The sum of three from the four numbers A, B, C, D are 4024, 4087, 4524 and 4573. What is the largest of the numbers A, B, C, D? 1 point

- ☒ 1712
- ☐ 1650
- ☐ 1164
- ☐ 1211

Clear selection



According to the stock policy of a company, each employee in the technical division is given 15 shares of the company and each employee in the recruitment division is given 10 shares. Employees belonging to both committees get 25 shares each. There are 20 employees in the company, and each one belongs to at least one division. The cost of each share is \$10. If the technical division has 15 employees and the recruitment division has 10 employees, then what is the total cost of the shares given by the company? 1 point

- ☐ 2650
- ☐ 3180
- ☒ 3250
- ☐ 3120

Clear selection

In a group of five families, every family is expected to have a certain number of children, such that the number of children forms an arithmetic progression with a common difference of one, starting with two children in the first family. Despite the objection of their parents, every child in a family has as many pets to look after as the number of off springs in the family. What is the total number of pets in the entire group of five families. 1 point

- ☐ 99
- ☐ 9
- ☐ 55
- ☒ 90

Clear selection



There is a set of 36 distinct points on a plane with the following characteristics:

1 point

* There is a subset A consisting of fourteen collinear points.

* Any subset of three or more collinear points from the 36 are a subset of A.

How many distinct triangles with positive area can be formed with each of its vertices being one of the 36 points? (Two triangles are said to be distinct if at least one of the vertices is different)

☐ 7140

☐ 4774

☐ 1540

☒ 6776

[Clear selection](#)

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