Geek Placement
PLACEMENT HUB FOR GEEKS

Infosys P&C Questions with Solutions

1. How many 4 digit numbers contain number 2.

a. 3170

b. 3172

c. 3174

d. 3168

Ans: D

Sol: Total number of 4 digit numbers are 9000 (between 1000 and 9999).

We find the numbers without any two in them. So total numbers are 8 x 9 x 9 x 9 = 5832 So numbers with number two in them = 9000 – 5832 = 3168

2. How many three digit numbers ABC are formed where at least two of the three digits are same.

a. 252

b. 260

c. 213

d. 226

Ans: a

Sol: Total 3 digit numbers = 9 x 10 x 10 = 900

Total number of 3 digit numbers without repetition = 9 x 9 x 8 = 648

So a number of three digit numbers with at least one digit repeats = 900 – 648=252

3. In a cycle race, there are 5 persons named as J,K,L,M,N participated for 5 positions so that in how many number of ways can M finishes always before N?

a. 70

b. 60

c. 80

d. 22

Ans: b

Sol: Total number of ways in which 5 persons can finish is 5! = 120 (there are no ties) Now in half of these ways M can finish before N.

4. There are 16 people, they divide into four groups, now from those four groups select a team of three members, such that no two members of the team should belong to the same group.

a.112

b.234

c.256

d.214

Ans: c

Sol: We can select any three of the 4 groups in 4 C 3
ways. Now from each of these groups, we can select 1 person in 4 ways. So total ways = 4 x 4 x 4 x 4 = 256

5. 7 people have to be selected from 12 men and 3 women, Such that no two women can come together. In how many ways we can select them?

a. 2772

b. 2773

c. 2775

d. 2134

Ans: 2772

Sol: We can select only one woman, and remaining 6 from men. So 12 C 6 × 3 C 1 = 2772

6. Tennis players take part in a tournament. Every player plays twice with each of his opponents. How many games are to be played?

a. 210

b. 123

c. 250

d. 215

Ans: a

Sol: We can select two teams out of 15 in 15 C 2 ways. So each team plays with other teams once. Now to play two games, we have to conduct 15 C 2 x 2 = 210 games.

7. Find the no of ways in which 6 toffees can be distributed over 5 different people namely A,B,C,D,E.

a. 3

b. 4

c. 6

d. 5

Ans : d

Sol: We assume that all the toffees are similar. Then Number of ways are (n + r −1) C r −1

HereA+B+C+D+E=6

Here r = 5, n = 6

Number of ways = 6+5−1 C 5−1 = 10 C 4 = 210.

If all the toffees are different, then each toffee can be distributed to any of the five. So total ways are 5

8. A shop has 4 shelves, 3 wardrobes, 2 chairs and 7 tables for sale. You have to buy a. 1 shelf

b. 1 wardrobe

c. either 1 chair or 1 table

How many selections can be made?

a. 110

b. 109

c. 108

d. 107

Ans : c

Sol:

The way to answer this question

$4 C 1 \times 3 C 1 \times 2 C 1 + 4 C 1 \times 3 C 1 \times 7 C 1 = 108$

9. How many ways can one arrange the word EDUCATION such that relative positions of vowels and consonants remain same?

a. 2880

b. 2180

c. 2670

d. 2560

Ans: a

Sol: The word EDUCATION is a 9 letter word with none of the letters repeating

The vowels occupy 3,5,7th & 8th position in the word & remaining five positions are occupied by consonants

As the relative position of the vowels & consonants in any arrangement should remain the same as in the word EDUCATION. The four vowels can be arranged in 3rd,5th,7th & 8th position in 4! ways.

similarly, the five consonants can be arranged in 1st , 2nd, 4th, 6th & 9th position in 5! ways

Hence the total number of ways = $5! \times 4! = 120 \times 24 = 2880$

10. There are 8 digits and 5 alphabets.In how many ways can you form an alphanumeric word

using 3 digits and 2 alphabets?

a. 33190

b. 33210

c. 41200

d. 43200

Ans: d

Sol:

Select 3 digits from 8 digits i. e. 8 C 3 ways

And also select 2 alphabets from 5 alphabets

i.e., 5 C 2 ways

Now to form an alphanumeric word of 5 characters we have to arrange the 5 selected digits. So the answer is . 8 C 3 × 5 C 2 × 5! = 43200