**Permutation & Combination**

1. In how many ways can the letters of the word ALLAHABAD be arranged?

A) 7560 B) 144 C) 72 D) 720

2. In how many ways can the letters of the word GREAT be arranged in such a way that all the vowels are always together?

A) 72 B) 44 C) 20 D) 48

3. In how many ways can the letters of the word MISSISSIPPI be arranged?

A) 34750 B) 34560 C) 34650 D) 35560

4. How many ways are possible to arrange the letters of the word DAUGHTER in such a way that the letter G comes after R?

A) 6!/2 B) 8!/2 C) 4!/4 D) 8!/4

5. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 5 and none of the digits is repeated?

A) 5 B) 10 C) 15 D) 20

6. How many 3-digit numbers can be formed from the digits 2, 3, 5, 6, 7 and 9, which are divisible by 2 and none of the digits is repeated?

A) 20 B) 60 C) 40 D) 50

7. 25 buses are running between two places P and Q. In how many ways can a person go from P to Q and return by a different bus?

A) 500 B) 600 C) 400 D) 700

8. Find out the number of ways in which 6 rings of different types can be worn in 3 fingers?

A) 3^3 B) 6^3 C) 3^6 D) 6^6

9. In how many ways a committee of 3 members can be formed from 16 members?

A) 1320 B) 560 C) 3360 D) 210

10. In how many ways a committee, consisting of 5 men and 6 women can be formed from 8 men and 10 women?

A) 86400 B) 5040 C) 760 D) 11760

11. A group consists of 4 girls and 7 boys. In how many ways can a team of 3 members be selected if the team has at least one boy?

A) 161 B) 165 C) 39 D) 56

12. Your family vacation involves a cross-country air flight, a rental car, and a hotel stay in Boston. If you can choose from four major air carriers, five car rental agencies, and three major hotel chains, how many options are available for your vacation accommodations?

A) 80 B) 80 C) 60 D) 35

13. There are 6 Maths books, 5 Science books and 2 Novels. How many ways are possible to select 3 maths books, 2 science books and 1 novel?

A) 200 B) 400 C) 90 D) 4800

14. A double decked bus can accommodate 100 passengers, 60 in the lower deck and 40 in the upper deck. In how many ways can 100 passengers be accommodated, if 15 of them want to be in the lower deck only and 10 want to be in the upper deck only?

A) 75!/(45!\*30!) B) 100!/(60!\*40!) C) 75!/30! D) (75!\*60!\*40!)/(50!\*25!)

15. If the letters of the word WARD are permuted in all possible ways and the strings thus formed are arranged in the dictionary order, find the rank of the word WARD?

A) 85 B) 65 C) 20 D) 25