**Aarambh Classes**

**Class XI**

**PERMUTATION WORKSHEET**

1. In how many ways can the letters of the word PENCIL be arranged so that (I)N is always next to E ?(ii)N and E are always together ?
2. How many different words can be formed with the letters of the word EQUATION so that
3. The words begin with E ? (ii)the words begin with E and end with N ? (iii) The words begin with and end with a consonant ?

3. In how many ways can 5 boys and 3 girls can be seated in arow so that no two girls are together ?

4. How many words can be formed from the letters of the word ‘DAUGHTER ‘ so that (I)the vowels always come together ? (ii)the vowels never come together ?

5. How many 4 digit numbers divisible by 4 can be made with the digits 1,2,3,4,5 if the repitition of digits is not allowed ?

6. How many different words can be formed by using all the letters of the word ‘ALLAHABAD ‘?

1. In how many of them vowels occupy the even positions ?
2. In how many of them both L do not come together ?

7. How many arrangements can be made with the letters of the word ‘MATHEMATICS ‘? In how many of them vowels are together ?

8. If all the letters of the word ‘AGAIN ‘be arranged as in adictionary ,what is the fiftieth word ?

9 . How many numbers greater than a million can be formed with the digits 2,3,0,3,4,2,3 ?

10. There are six periods in each working day of aschool .In how many ways can one arrange 5 subjects such that each subject is allowed at least 1 period ?