

CLASS XI MATHS TEST ON PERMUTATION & COMBINATIONS

TIME 1 HOUR

MARKS : 40

1.
 - i. How many different words can be formed with the letters of the word HARYANA?
 - ii. How many of these begin with H and end with N? 4
2. How many numbers greater than a million can be formed with the digits 2, 3, 0, 3, 4, 2, 3? 4
3. Find the number of ways in which 5 boys and 5 girls be seated in a row so that :
 - a. No two girls may sit together
 - b. All the girls are never together 4
4. A boy has 3 library tickets and 8 books of his interest in the library. Of these 8, he does not want to borrow Chemistry Part II, unless Chemistry Part I is also borrowed. In how many ways can he choose the 3 books to be borrowed? 4
5. How many five-letter words containing 3 vowels and 2 consonants can be formed using the letters of the word 'EQUATION' so that the two consonants occur together? 4
6. How many even numbers are there with three digits such that if 5 is one of the digits, then 7 is the next digit (repetition of numbers allowed) ? 4
7. A president, secretary and an officer are to be selected from a group of 10 people. In how many ways can the selection be made if :
 - a. E must be an officer
 - b. C and D will serve together or not at all. 4
8. Five boys and five girls are to be seated in a row. In how many ways can this be done if ;
 - a. No two girls are together.
 - b. Two particular boys are always together.
 - c. All the boys are together and all the girls together.
 - d. Girls and Boys sit alternately. 4
9. How many different words can be formed by using all the letters of the word 'ALLAHABAD'?
 - a. In how many of them vowels occupy the even positions?
 - b. In how many of them both L do not come together? 4
10. Find the rank of ZENITH, if these all letters are written as in dictionary. 4