

## Permutations and Combinations

1. The number of different 8 letters arrangements that can be made from the letters of the word DAUGHTER so that
  - (i) All vowels occur together
  - (ii) All vowels do not occur together.
2. If  $C_2^n = C_3^n$  then  $n =$
3. How many chords can be drawn through 5 points on a circle?
4. A bag contains 5 red balls and 3 black balls. Determine the number of ways in which 2 red and 2 black balls can be selected.