Doon Public School

A Senior Secondary School
Sector- 21, Panchkula. Ph: 0172- 2590514

Assignment 3 **Subject: Mathematics** **Class: XI-B**

Date: 7-08-2018

1. ${}^{n}P_5 = 42\ {}^{n}P_3,\ n > 4$. Find the value of n.
2. Find the number of arrangements of the letters of the word INDEPENDENCE in which words begin with I and end in P.
3. What is the number of ways of choosing 4 cards from a pack of 52 playing cards such that two are red cards and two are black cards.
4. Determine 'n' if $2nC_3 : {}^{n}C_3 = 12:1$
5. In how many ways can 5 girls and 3 boys be seated in a row so that no two boys are together.
6. Evaluate $(102)^5$ using Binomial theorem.
7. Find a positive value of m for which the coefficient of x^2 in the expansion $(1+x)^m$ is 6.
8. Find coefficient of x^5 in the product $(1+2x)^6(1-x)^7$ using Binomial theorem.