

**DELHI PUBLIC SCHOOL, JAMMU**  
**SESSION(2021-22)**

**CLASS: XI**  
**SUBJECT: APPLIED MATHEMATICS**

Based on your understanding of e-lectures-cum-PPTs, video links and other-e-resources share with you, answer the following question.

**Assignment:**

- Q1. Evaluate each of the following  
i.  ${}^8P_3$                   ii.  ${}^{10}P_4$
- Q2. If  $P(5, r) = P(6, r - 1)$ , find  $r$ .
- Q3. If  $5P(4, n) = 6P(5, n - 1)$ , find  $n$ .
- Q4. If  $P(n, 5) = 20P(n, 3)$ , find  $n$
- Q5. If  ${}^nP_4 = 360$ , find the value of  $n$
- Q6. In how many ways can the letters of the word 'FAILURE' be arranged so that the consonants may occupy only odd positions?
- Q7. In how many ways can the letters of the word 'STRANGE' be arranged so that
- i. the vowels come together?
  - ii. the vowels never come together? and
  - iii. the vowels occupy only the odd places?