









Date Planned : __ / __ / __	Daily Tutorial Sheet - 2	Expected Duration : 90 Min
Actual Date of Attempt : __ / __ / __	Level - 1	Exact Duration : _____

26. Letters of the word INDIALOIL are arranged in all possible ways. The number of permutations in which A, I, O occur only at odd places, is:
(A) 720 **(B)** 360 **(C)** 240 **(D)** 120
27. The number of ways of arranging 20 boys so that 3 particular boys are separated is:
(A) $9(16!)$ **(B)** $15(16!)$ **(C)** $15(17!)/2$ **(D)** None of these
28. How many ways are there to arrange the letters in the word GARDEN with the vowels in alphabetical order? 
(A) 360 **(B)** 240 **(C)** 120 **(D)** 480
29. The number of arrangements of the letters of the word BANANA in which two N's do not appear adjacently is:
(A) 40 **(B)** 60 **(C)** 80 **(D)** 100
30. In how many ways can 21 identical English and 19 identical Hindi books be placed in a row so that no two Hindi books are together?
(A) 1540 **(B)** 1450 **(C)** 1504 **(D)** 1405
31. In how many ways four '+' and five '-' signs can be arranged in a circle so that no two '+' sign is together. 
(A) 1 **(B)** 2 **(C)** 5 **(D)** 6
32. The number of ways in which two teams A and B of 11 players each can be made up from 22 players so that two particular players are on the opposite sides is:
(A) 369512 **(B)** 184755 **(C)** 184756 **(D)** 369514
33. How many different nine-digit numbers can be formed from the digits of the number 223355888 by rearrangement of the digits so that the odd digits occupy even places:
(A) 16 **(B)** 36 **(C)** 60 **(D)** 180
34. The number of ways in which the letters of the word ARRANGE can be made such that both R's do not come together is:
(A) 900 **(B)** 1080 **(C)** 1260 **(D)** 1620
35. We are required to form different words with the help of the letters of the word INTEGER. Let m_1 be the number of words in which I and N are never together and m_2 be the number of words which begin with I and end with R, then m_1 / m_2 is given by:
(A) 42 **(B)** 30 **(C)** 6 **(D)** $\frac{1}{30}$
36. In a group of 8 girls, two girls are sisters. The number of ways in which the girls can sit in a row so that two sisters are not sitting together is:
(A) 4820 **(B)** 1410 **(C)** 2830 **(D)** 30240
37. The number of words that can formed by using the letters of the word MATHEMATICS that start as well as end with T is:
(A) 80720 **(B)** 90720 **(C)** 20860 **(D)** 37528

38. The number of permutations of k different things, in a row, taken not more than r at a time (each thing may be repeated any number of times) is equal to: 
- (A) $k^r - 1$ (B) k^r (C) $k \left(\frac{k^r - 1}{k - 1} \right)$ (D) $\frac{(k^{r+1} - 1)}{(k - 1)}$
39. The number of words of four letters containing equal number of vowels and consonants (repetition allowed) is: 
- (A) 105^2 (B) 210×243 (C) 105×243 (D) 6×105^2
40. The number of ways in which 6 identical rings can be worn on 4 fingers of one hand is:
- (A) 9C_3 (B) 9C_4 (C) 6_4 (D) 4^6
41. 5 letters can be posted into 3 letter boxes in:
- (A) 3^5 ways (B) 5^3 ways (C) 5C_3 ways (D) None of these
42. The number of ways in which a mixed doubles game can be arranged from 9 married couples if no husband and wife play in the same game is: 
- (A) 756 (B) 3024 (C) 1512 (D) None of these
43. A library has a copies of one book, b copies of each of two books, c copies of each of three books and single copy of d books. The total number of ways in which these books can be arranged is:
- (A) $\frac{(a + b + c + d)!}{a! b! c!}$ (B) $\frac{(a + 2b + 3c + d)!}{a! (b!)^2 (c!)^3}$
- (C) $\frac{(a + 2b + 3c + d)!}{a! b! c!}$ (D) None of these
44. A class has n students. We have to form a team of the students including atleast two students and also excluding atleast two students. The number of ways of forming the team is: 
- (A) $2^n - 2n$ (B) $2^n - 2n - 2$ (C) $2^n - 2n - 4$ (D) $2^n - 2n - 1$
45. 15 identical balls have to be put in 5 different boxes. Each box can contain any number of balls. Total number of ways of putting the balls into box so that each box contains atleast 2 balls, is equal to: 
- (A) 9C_5 (B) ${}^{10}C_5$ (C) 6C_5 (D) ${}^{10}C_6$
46. The number of ways of selecting atleast 4 candidates from 8 candidates is: 
- (A) 270 (B) 70 (C) 163 (D) None of these
47. A student is to answer 10 out of 13 questions in an examination such that he must choose atleast 4 from the first five questions. The number of choices available to him is:
- (A) 140 (B) 196 (C) 280 (D) 346
48. Find number of arrangements of 4 letters taken from the word EXAMINATION.
- (A) 2454 (B) 2500 (C) 2544 (D) 2460
49. Find number of ways in which an arrangement of four letters can be made from the letters of the word PROPORTION.
- (A) 754 (B) 758 (C) 752 (D) 750
50. Find the number of permutations of the word ASSASSINATION taken 4 at a time.
- (A) 900 (B) 917 (C) 719 (D) 791