

ST. LAWRENCE HIGH SCHOOL A JESUIT CHRISTIAN MINORITY INSTITUTION



Worksheet-21

SUBJECT – MATHEMATICS

2nd-term

Chapter: Algebra

Topic: Permutations

Date: 09.11.2020

Class: XI

Choose the correct option

(1 X 15= 15)

- 1. How many different permutations can be made by taking all the letters of the word COMMERCE ?
 - a) 5400
 - b) 5040
 - c) 5004
 - d) 4050
- 2. How many different permutations can be made by taking all the letters of the word COSTING so that the vowels are always together ?
 - a) 1450
 - b) 1340
 - **c)** 1440
 - d) 1404
- 3. How many different permutations can be made by taking all the letters of the word ENGINEERING ?
 - a) 277800
 - b) 277200
 - c) 216800
 - d) 228600
- 4. How many different permutations can be made by taking all the letters of the word MONDAY ?
 - a) 720
 - b) 702
 - c) 270
 - d) None of these.

5. Find the rank of the letter MAKE when its letter are arranged as in a dictionary.

- a) 24
- b) 45
- **c)** 40
- d) None of these.

6. Find the rank of the letter LATE when its letter are arranged as in a dictionary.

- a) 12
- **b)** 14
- c) 16
- d) None of these.
- 7. Find the rank of the letter MOTHER when its letter are arranged as in a dictionary.
 - a) 396
 - b) 169
 - c) 309
 - d) 369
- 8. How many different arrangements can be made by taking all the letters of the word COSTING so that the vowels are never together ?
 - a) 35000
 - **b)** 3600
 - **c)** 3700
 - d) 3080
- 9. How many different arrangements can be made by taking all the letters of the word COSTING so that the vowels may appear in the odd places ?
 - a) 1444
 - b) 1044
 - **c) 1404**
 - d) 1440
- 10. In how many ways can 10 boys and 7 girls be arranged in a row so that no two girls come together ?
 - a) 1040890
 - b) 9876000
 - c) 9702800
 - d) None of these.

- 11. In how many ways can 3 boys and 5 girls be arranged in a row so that all the 3 boys are together ?
 - a) 4230
 - **b)** 4210
 - c) 4230
 - d) 4320
- 12. How many different arrangements can be made by taking all the letters of the word CONSTANT keeping the two vowels always together ?
 - a) 2500
 - b) 2560
 - c) 2540
 - d) 2520
- 13. How many numbers not more than 4 digits can be formed with the digits 1, 2, 3 and 4, repetitions being allowed ?
 - a) 340
 - b) 320
 - c) 330
 - d) 310

14. In how many ways can 6 boys form a ring?

- a) 352
- b) 350
- c) 120
- d) 270

15. In how many ways can 6 boys be seated at a round table ?

- a) 790
- b) 891
- c) 720
- d) 196

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