

Practice Exercise

Level - I

1. The sum of all the four digit even numbers which can be formed by using the digits 0, 1, 2, 3, 4 and 5 if repetition of digits is allowed is
 (a) 1765980 (b) 1756980
 (c) 1769580 (d) 1759680
2. How many words beginning with vowels can be formed with the letters of the word EQUATION?
 (a) 25200 (b) 15200
 (c) 25300 (d) 35200
3. The number of words that can be formed out of the letters of the word COMMITTEE is
 (a) $\frac{9!}{(2!)^3}$ (b) $\frac{9!}{(2!)^2}$
 (c) $\frac{9!}{2!}$ (d) 9!
4. If ${}^{10}P_r = 720$, then r is equal to
 (a) 4 (b) 2
 (c) 3 (d) 1
5. Number of ways in which 12 different balls can be divided into groups of 5, 4 and 3 balls are
 (a) $\frac{12!}{5!4!}$ (b) $\frac{12!}{5!4!3!}$
 (c) $\frac{12!}{5!4!3!3!}$ (d) None of these
6. How many different letter arrangements can be made from the letter of the word EXTRA in such a way that the vowels are always together?
 (a) 48 (b) 60
 (c) 40 (d) 30
7. In how many ways can a committee of 5 be made out of 6 men and 4 women containing atleast one woman?
 (a) 246 (b) 222
 (c) 186 (d) None of these
8. How many integers greater than 5000 can be formed with the digit 7, 6, 5, 4 and 3, using each digit at most once?
 (a) 72 (b) 144
 (c) 84 (d) 192
9. Every body in a room shakes hands with every else. If total number of hand-shaken is 66, then number of persons in the room is
 (a) 11 (b) 12
 (c) 13 (d) 14
10. The number of words from the letters of the words BHARAT in which *B* and *H* will never come together, is
 (a) 360 (b) 240
 (c) 120 (d) None of these
11. A bag contains 3 black, 4 white and 2 red balls, all the balls being different. The number of at most 6 balls containing balls of all the colours is
 (a) $42(4!)$ (b) $2^6 \times 4!$
 (c) $(2^6 - 1)(4!)$ (d) None of these
12. How many different ways are possible to arrange the letters of the word "MACHINE" so that the vowels may occupy only the odd positions?
 (a) 800 (b) 125
 (c) 348 (d) 576
13. If ${}^nP_r = {}^nP_{r+1}$ and ${}^nC_r = {}^nC_{r-1}$, then the values of n and r are
 (a) 4, 3 (b) 3, 2
 (c) 4, 2 (d) None of these
14. If ${}^nP_r = 720 {}^nC_r$, then r is equal to
 (a) 3 (b) 7
 (c) 6 (d) 4
15. In how many ways a hockey team of eleven can be elected from 16 players?
 (a) 4368 (b) 4267
 (c) 5368 (d) 4166
16. In how many ways can twelve girls be arranged in a row if two particular girls must occupy the end places?
 (a) $\frac{10!}{2!}$ (b) 12!
 (c) $10! \times 2!$ (d) $\frac{12!}{2!}$
17. To fill a number of vacancies, an employer must hire 3 programmers from among 6 applicants, and 2 managers from among 4 applicants. What is the total number of ways in which she can make her selection?
 (a) 1,490 (b) 132
 (c) 120 (d) 60
18. A father has 2 apples and 3 pears. Each weekday (Monday through Friday) he gives one of the fruits to his daughter. In how many ways can this be done?
 (a) 120 (b) 10
 (c) 24 (d) 12

Level - II

