# ECAT Mathematics Chapter 9 Permutation, Combination and Probability

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | If 4 $^{6}P_{r}$= $^{6}P_{r+1}$, then r is equal to | A. 4<br>B. 3<br>C. 2<br>D. 1 |
| 2 | The value of n, when $^{n}P_{2}$= 20 is | A. 3<br>B. 4<br>C. 6<br>D. 5 |
| 3 | A dice is rolled. The probability that the dots on the top are greater than 4 is | A. 1/6<br>B. 1/3<br>C. 1/2<br>D. 1 |
| 4 | The domain of an infinite sequence is a | A. Set of natural numbers<br>B. R<br>C. Subset of N<br>D. None of the above |
| 5 | A and B throw a dice. The probability that A's throw is not greater then B's is | A. 5 / 12<br>B. 7 / 12<br>C. 1 / 6<br>D. 1 / 2 |
| 6 | A sequence is a function whose domain is | A. N<br>B. Subset of N<br>C. R<br>D. None of these |
| 7 | If S is a sample space and event set E = S then P(E) is | A. >0<br>B. 1<br>C. <1<br>D. 0 |
| 8 | Question Image | A. 120<br>B. 5<br>C. 4<br>D. 6 |
| 9 | Question Image | A. 1 / 2<br>B. 1 / 3<br>C. 1 / 4<br>D. None of these |
| 10 | Out of 40 consecutive natural numbers, two are chosen at random. Probability that the sum of the numbers is odd, is | A. 14 / 29<br>B. 20 / 39<br>C. 1 / 2<br>D. n |
| 11 | How many 6-Digit number can be formed without repairing any digit from the digits 0,1,2,3,4,5 | A. 720<br>B. 600<br>C. 120<br>D. 6-5! |
| 12 | A combination lock on a suitcase has 3 wheels each labeled with nine digits from 1 to 9. If an opening combination is a particular sequence of three digits with no repeats, the probability of a person guessing the right combination is | A. 1 / 500<br>B. 1 / 504<br>C. 1 / 252<br>D. 1 / 250 |
| 13 | A bag contains 3 white, 4 black and 2 red balls. If 2 balls are drawn at random, then the probability that both the ball are white is | A. 1/18<br>B. 1/12<br>C. 1/36<br>D. None of these |
| 14 | The probability to get an odd number in a dice thrown once is | A. 6<br>B. 1<br>C. 1/6<br>D. 1/2 |
| 15 | 20. 19. 18. 17= _____ | |
| | There are n seats round a table numbered 1, 2, 3, ..., n. The number of ways in which m | A. <sup>n</sup>P<sub>m</sub><br>B. <sup>n</sup>C<sub>m</sub>x (m |

| | | |
|---|---|---|
| 16 | There are n seats round a table numbered 1, 2, 3 ... n. The number of ways in which m person can take seats is | - 1) !<br>C. <sup>n-1</sup>P<sub>m</sub><br>D. None of these |
| 17 | Out of 10, 000 families with 4 children each, the number of families all of whose children are daughters is | A. 375<br>B. 500<br>C. 625<br>D. 150 |
| 18 | Fifteen girls compete in a race. The first three places can be taken by them in | A. 3! ways<br>B. 12! ways<br>C. 15 x 14 x 13 ways<br>D. 42 ways |
| 19 | Question Image | A. 5<br>B. 10<br>C. 20<br>D. 30 |
| 20 | nCn-r is equal to | A. n!<br>B. n-1Cr<br>C. nCr<br>D. None of these |