

## ECAT (Pre-Eng) Mathematics Chapter 9 Permutation, Combination and Probability

Sr	Questions	Answers Choice
1	$n!/(n-1)!$	A. n B. n! C. (n-1)! D. 0!
2	Eight chairs are numbered 1 to 8. Two women and three men wish to occupy one chair each. First, the women choose the chairs from amongst the chairs marked 1 to 4 and then the men select the chairs from amongst the remaining. The number of possible arrangement is	A. ${}^6C_3 \times {}^4C_2 \times {}^3P_3$ B. ${}^4C_2 \times {}^6C_3 \times {}^4P_4$ C. ${}^4P_2 \times {}^6P_3$ D. None of these
3	Two unbiased dice are thrown. The probability that the total score is $> 5$ is	A. 1 / 18 B. 7 / 18 C. 13 / 18 D. 11 / 18
4	The value of n, when ${}^nP_2 = 20$ is	A. 3 B. 4 C. 6 D. 5
5	If n is a negative integer n! is	A. 1 B. 0 C. Unique D. Not defined
6	Question Image	
7	A bag contains 7 whit, 5 black and 4 rd balls. If two balls are drawn at random from the bag, the probability that they are not of the same color is	A. 73 / 120 B. 83 / 120 C. 67 / 120 D. 43 / 120
8	The factorial of a positive integers is a (an)	A. Rational number B. Positive integer C. Real number D. None
9	All letters of the word "AGAIN" are permuted in all possible ways and the words so formed (with or without meaning) are written as in dictionary, then the 50th word is	A. NAAGI B. NAAIG C. IAANG D. INAGA
10	The probability to get an odd number in a dice thrown once is	A. 1/2 B. 1/6 C. 1/3 D. 2
11	For a positive integer n	A. $n! = n(n + 1)$ B. $n! = n(n+1)!$ C. $n! = n(n - 1)$ D. $n! = n(n - 1)!$
12	The sample space for tossing a coin once is	A. {T, T} B. {H, H} C. {H, T} D. None of these
13	Form a group of 5 men and 3 women, a committee of 4 persons is to be selected randomly. The probability that there is a majority of men is	A. 1/4 B. 1/3 C. 1/2 D. 1/6
14	Question Image	A. 5 B. 20 C. 9 D. 4
15	Six boys and 3 girls are to be seated at random, in a row, for a photograph. The probability that no two girls will sit together is	A. 1/12 B. 1/6 C. 5/12 D. 7/12

16	Question Image	A. 0 B. -1 C. 1 D. 2
17	The probability that the sum of dots appearing in two successive thrown of two dice, in every time 7 is	A. 1/5 B. 1/36 C. 1/7 D. 1/63
18	Two cards are drawn at random from a well shuffled pack of cards. The probability that at least one of them is a face card is	A. 3 / 17 B. 5 / 17 C. 7 / 17 D. 9 / 17
19	A class contains nine boys and three girls, in how many ways can the teacher choose a committee of four?	A. 60 B. 460 C. 495 D. 272
20	Question Image	