

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

Sr	Questions	Answers Choice
1	The factorial of a positive integers is a (an)	A. Rational number B. Positive integer C. Real number D. None
2	$6! = \underline{\hspace{2cm}}$	A. 360 B. 720 C. 6.5.4 D. None of these
3	A die is rolled. What is the probability that the dots on the top are greater than 4?	A. $\frac{1}{4}$ B. $\frac{1}{2}$ C. $\frac{1}{3}$ D. $\frac{1}{33}$
4	Question Image	A. 5 B. 10 C. 20 D. 30
5	A coin is tossed. If head comes up, a die is thrown but if tail comes up, the coin is tossed again. The probability of obtaining a head and an even number is	A. $\frac{1}{8}$ B. $\frac{2}{8}$ C. $\frac{3}{8}$ D. None of these
6	Three unbiased coins are tossed. Then the probabilities of getting two heads is	A. $\frac{3}{8}$ B. $\frac{1}{8}$ C. $\frac{1}{4}$ D. None of these
7	$(n + 2) (n + 1) n = \underline{\hspace{2cm}}$	
8	How many signals can be given by 5 flags of different colours, using 3 flags at a time	A. 120 B. 60 C. 24 D. 15
9	The number of permutations of n objects of which there are $n_1$ like of one kind, $n_2$ like of the second kind and $n_3$ like objects of third kind are	
10	$(n + 2) (n + 1) n$ in factorial form is	
11	The sum of all odd numbers between 100 and 200 is	A. 6200 B. 7500 C. 6500 D. 3750
12	Question Image	
13	How many necklaces can be made from 6 beads of different colours?	A. 120 B. 60 C. 24 D. 15
14	$9 \cdot 8 \cdot 7 \cdot 6 = \underline{\hspace{2cm}}$	
15	A box contains 10 red 30 white and 20 black marbles When a marble is drawn at random the probability that it is either red or white is	A. $\frac{1}{6}$ B. $\frac{1}{3}$ C. $\frac{1}{2}$ D. $\frac{2}{3}$
16	Question Image	A. 56 B. 7 C. 8 D. $\frac{8}{7}$
17	The domain of a finite sequence is a	A. Set of natural numbers B. R C. Subset of N D. Proper subset of N
18	There are 25 tickets bearing number from 1 to 25. One ticket is drawn at random. The probability that the number on it is a multiple of 5 or 6 is	A. $\frac{7}{25}$ B. $\frac{9}{25}$ C. $\frac{11}{25}$ D. ...

D. None of these

19 A dice is rolled. The probability that the dots on the top are greater than 4 is

A.  $\frac{1}{6}$

B.  $\frac{1}{3}$

C.  $\frac{1}{2}$

D. 1

20 Question Image