

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

Sr	Questions	Answers Choice
1	$6! = \underline{\hspace{2cm}}$	A. 360 B. 720 C. 6.5.4 D. None of these
2	If $n$ is a positive integer then $n!$ is	A. $(n - 1) (n - 2) \dots 3, 2, 1$ B. $n(n - 1) (n - 2) \dots 3, 2, 1$ C. $n(n - 1) (n - 2) \dots 3$ D. None of these
3	The probability to get an odd number in a dice thrown once is	A. 6 B. 1 C. $1/6$ D. $1/2$
4	Question Image <input type="text"/>	
5	The probability that a slip of number divisible by 4 is picked from the slips bearing numbers 1, 2, 3, ...10 is	A. $1/5$ B. $1/4$ C. $1/3$ D. $1/2$
6	Number of combination of zero or more things out of $n$ different things	A. $nPn$ B. $nPr$ C. $nCr$ D. $2n$
7	What is the probability of being born on Wednesday?	A. $1/7$ B. $1/2$ C. $1/3$ D. $1/8$
8	Number of ways of writing the letters of WORD taken all at a time is	A. 24 B. 4 C. 12 D. 6
9	A machine operates if all of its three components function. The probability that the first component fails during the year is 0.14, the second component fails is 0.10 and the third component fails is 0.05. the probability that the machine will fail during the year is	A. 0.2647 B. 0.2692 C. 0.3647 D. None of these
10	Number of selections of $n$ different things out of $n$	A. 1 B. $nPr$ C. $n!$ D. $nPr$
11	$n!/(n-1)! =$	A. $n$ B. $n!$ C. $(n-1)!$ D. $0!$
12	The probability of getting a number between 1 and 100 which is divisible by 1 and itself if only is	A. $1/4$ B. $1/2$ C. $3/4$ D. $25/98$
13	Question Image <input type="text"/>	A. 110 B. 220 C. 1320 D. None of these
14	An integer is chosen at random from the number ranging from 1 to 50. the probability that the integer chosen is a multiple of 2 or 3 or 10 is	A. $3/10$ B. $5/10$ C. $7/10$ D. $9/10$
15	Question Image <input type="text"/>	A. 5 B. 20 C. 9 D. 4
16	A die is thrown, the probability that the dots on the top are prime numbers or odd numbers is	A. $1/2$ B. $2/3$ C. $1/3$

D.  $\frac{2}{5}$

17 If  $S$  is a sample space and event set  $E = \Phi$  then  $P(E)$  is

- A.  $> 0$
- B. 1
- C.  $< 1$
- D. 0

18 Probability of an impossible event is

- A. 0
- B. -1
- C. 1
- D.  $\infty$

19  $n$  different objects can be arranged taken all at a time in \_\_\_\_\_

- A.  $(n + 1)!$  ways
- B.  $(n - 1)!$  ways
- C.  $n!$  ways
- D.  $n$  ways

20 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.  $\frac{2}{3}$