

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

Sr	Questions	Answers Choice
1	The number of the diagonals of a 6 sided figure is	A. 15 B. 21 C. 9 D. 6
2	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	
3	The sample space for tossing a coin once is	A. {T, T} B. {H, H} C. {H, T} D. None of these
4	If $n$ is a negative integer $n!$ is	A. 1 B. 0 C. Unique D. Not defined
5	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. $9/10$
6	Question Image	
7	The domain of a finite sequence is a	A. Set of natural numbers B. R C. Subset of N D. Proper subset of N
8	Question Image	
9	Two balanced dice are tossed once, the sample space when the integers on the faces of two dice are the same is	A. {(1, 1), (2, 2), (3, 3)} B. {(4, 4), (5, 5), (6, 6)} C. {(1, 1), (2, 2), (3, 3), (4, 4), (5, 5), (6, 6)} D. None of these
10	In a class of 100 students, 60 drink tea, 50 drink coffee and 30 drink both. A student from his class is selected at takes at last one of 2 drinks is	A. $2/5$ B. $3/5$ C. $4/5$ D. None of these
11	probability of a certain event is	A. 0 B. -1 C. 1 D. $\infty$
12	$n!/(n-1)! =$	A. $n$ B. $n!$ C. $(n-1)!$ D. $0!$
13	$6! =$ _____	A. 360 B. 720 C. 6.5.4 D. None of these
14	Question Image	
15	When a selection of object is made without paying regard to the order of selection, it is called	A. Sequence B. Series C. Combination D. Permutation
16	If $4 {}^6P_r = {}^6P_{r+1}$ , then $r$ is equal to	A. 4 B. 3 C. 2 D. 1
17	How many necklaces can be made from 6 beads of different colours?	A. 120 B. 60 C. 24 D. 12

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| 18 | The probability that the sum of dots appearing in two successive thrown of two dice, in every time 7 is   | A. $\frac{1}{5}$<br>B. $\frac{1}{36}$<br>C. $\frac{1}{7}$<br>D. $\frac{1}{63}$   |
| 19 | Three numbers are chosen random without replacement from $\{1, 2, 3, \dots, 10\}$ . the probability that minimum of the chosen numbering is 3 or their maximum is 7 | A. $\frac{7}{40}$<br>B. $\frac{5}{40}$<br>C. $\frac{11}{40}$<br>D. None of these |
| 20 | $8 \cdot 7 \cdot 6 \cdot 5$ in factorial form is  |  |