

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

Sr	Questions	Answers Choice
1	The value of n , when ${}^n P_2 = 20$ is	A. 3 B. 4 C. 6 D. 5
2	In how many ways can 5 persons be seated at a round table	A. 5! B. 4! C. 3! D. 120
3	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
4	The sum of all positive integral multiple of 5 less than 100 is	A. 950 B. 760 C. 1230 D. 875
5	The key for opening a door is in a bunch of 10 keys. A man attempts to open the door by trying the keys at random discarding the wrong key. The probability that the door is opened in the 5th trial is	A. 1 / 10 B. 2 / 10 C. 3 / 10 D. 4 / 10
6	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
7	How many necklaces can be made from 6 beads of different colours?	A. 120 B. 60 C. 24 D. 15
8	An experiment yields 3 mutually exclusive and exhaustive events A, B, C, if $P(A) = 2$ and $P(B) = 3$. then $P(C) =$	A. 1 / 11 B. 2 / 11 C. 3 / 11 D. 6 / 11
9	The number of combinations of 10 different objects taken 8 objects at a time is	A. 90 B. 45 C. 55 D. 50
10	The number of the diagonals of a 6 sided figure is	A. 15 B. 21 C. 9 D. 6
11	How many committees of 5 numbers can be chosen from a group of 8 players person when each committee must include 2 particular persons	A. 8! B. 5!3! C. 5! D. 20
12	If A and B are two disjoint events then	A. $P(A \cup B) = P(A) + P(B)$ B. $P(A \cup B) = P(A) - P(A \cap B)$ C. $P(A \cup B) = P(A) \cup P(B)$ D. None
13	If S is a sample space and event set $E = \Phi$ then $P(E)$ is	A. > 0 B. 1 C. < 1 D. 0
14	Question Image	
15	$n(n - 1) (n - 2)$ in factorial form is	
16	In a school there are 150 students Out of these 80 students enrolled for mathematics class.50 enrolled for English class and 60 enrolled for Physics class The student enrolled for English cannot attend any other class but the students of mathematics and Physics can take two courses at a time find the number of students who have taken both physics and mathematics.	A. 40 B. 30 C. 50 D. 60

17	A card is drawn from a pack of cards numbered 1 to 52, the probability that the number on the card is a perfect square is	A. $1/13$ B. $2/13$ C. $7/52$ D. None of these
18	Product of any n consecutive positive integers is divisible by	A. n B. \sqrt{n} C. n! D. None
19	Out of 10, 000 families with 4 children each, the number of families all of whose children are daughters is	A. 375 B. 500 C. 625 D. 150
20	Arithmetic mean between 14 and 18 is	A. 16 B. 17 C. 15 D. 32