

ECAT Mathematics Chapter 9 Permutation, Combination & Probability

Sr	Questions	Answers Choice
1	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
2	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
3	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. $\frac{2}{5}$ B. $\frac{3}{5}$ C. $\frac{4}{5}$ D. None of these
4	There are n seats round a table numbered 1, 2, 3 n. The number of ways in which m person can take seats is	A. ${}^n P_m$ B. ${}^n C_m \times (m - 1)!$ C. ${}^{n-1} P_m$ D. None of these
5	The probability to get an odd number in a dice thrown once is	A. $\frac{1}{2}$ B. $\frac{1}{6}$ C. $\frac{1}{3}$ D. 2
6	The number of combinations of 10 different objects taken 8 objects at a time is	A. 90 B. 45 C. 55 D. 50
7	There are 16 point in a plane, in which 6 are collinear. how many lines can be drawn by joining these points?	A. 10 B. 66 C. 71 D. 106
8	The probability that a person A will be alive 15 years hence is $\frac{5}{7}$ and the probability that another person B will be alive 15 years hence is $\frac{7}{9}$. Find the probability that both will be alive 15 years hence	A. $\frac{4}{63}$ B. $\frac{5}{9}$ C. $\frac{45}{49}$ D. None of these
9	How many arrangements of the letters of the word PAKISTAN cab be made	
10	If for two events A and B , $P(A \cup B) = 1$, then events A and B are	A. Certain events B. Mutually exclusive C. Complementary events D. Independent
11	Question Image	A. 5 B. 10 C. 20 D. 30
12	Question Image	
13	How many arrangements of the letters of the word MATHEMATICS can be made	
14	If two balls are drawn from a bag containing 3 white, 4 black and 5 red balls. Then the probability that the drawn balls are of different colours is	A. $\frac{1}{66}$ B. $\frac{3}{66}$ C. $\frac{19}{66}$ D. $\frac{47}{66}$
15	How many arrangements of the letter of the word PAKPATTAN can be made	
16	A and B throw a dice. The probability that A's throw is not greater then B's is	A. $\frac{5}{12}$ B. $\frac{7}{12}$ C. $\frac{1}{6}$ D. $\frac{1}{2}$
17	Out of 40 consecutive natural numbers, two are chosen at random. Probability that the sum of the numbers is odd, is	A. $\frac{14}{29}$ B. $\frac{20}{39}$ C. $\frac{1}{2}$ D. n

18	Product of any n consecutive positive integers is divisible by	A. n B. \sqrt{n} C. n! D. None
19	The probability to get an odd number in a dice thrown once is	A. 6 B. 1 C. 1/6 D. 1/2
20	The value of n, when ${}^nP_2 = 20$ is	A. 3 B. 4 C. 6 D. 5