ECAT Mathematics Chapter 9 Permutation, Combination & Probability

Sr	Questions	Answers Choice
1	Three integers are chosen at random from the first 20 integers. Then probability that their product is even, is	A. 2 / 19 B. 3 / 29 C. 17 / 19 D. 4 / 19
2	A card is drawn from a pack of cards numbered 2 to 53. the probability that the number on the card is prime number less than 20 is	A. 2 / 13 B. 4 / 13 C. 5 / 13 D. 8 / 13
3	Fifteen girls compete in a race. The first three places can be taken by them in	A. 3! ways B. 12! ways C. 15 x 14 x 13 ways D. 42 ways
4	A bag contains 3 white, 4 black and 2 red balls. If 2 balls are drawn at random, then the probability that both the ball are white is	A. 1/18 B. 1/12 C. 1/36 D. None of these
5	Question Image	
6	A bag contains 7 whit, 5 black and 4 rd balls. If two balls are drawn at random from the bag, the probability that they are not of the same color is	A. 73 / 120 B. 83 / 120 C. 67 / 120 D. 43 / 120
7	Question Image	
8	In how many ways can 5 persons be seated at a round table	A. 5! B. 4! C. 3! D. 120
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	If n is a negative integer n! is	A. 1 B. 0 C. Unique D. Not defined
11	n(n - 1) (n - 2) .... (n - r + 1) = _____	
12	In a country 55% of the male population has houses in cities while 30% have houses both in cities and in villages find the percentage of the population that has houses only in villages	A. 45 B. 30 C. 25 D. 50
13	How many 3 digit numbers can be formed by using each one of the digit 2, 3, 5, 7, 9 only once?	A. 15 B. 24 C. 60 D. 120
14	For a positive integer n	A. n! = n(n + 1) B. n! = n(n+1)! C. n! = n(n - 1) D. n! = n(n - 1)!
15	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
16	Question Image	
17	How many necklaces can be made from 6 beads of different colours?	A. 120 B. 60 C. 24 D. 15
		A. 1 / 4

18	The probability of getting a number between 1 and 100 which is divisible by 1 and itself if only is	B. 1 / 2 C. 3 / 4 D. 25 / 98
19	Out of 40 consecutive natural numbers, two are chosen at random. Probability that the sum of the numbers is odd, is	A. 14 / 29 B. 20 / 39 C. 1 / 2 D. n
20	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