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

Sr	Questions	Answers Choice
1	The sample space for tossing a coin twice is	A. {H, T} B. {HH, HT, TH, TT} C. {H, T, HH} D. {HH, HT, TT}
2	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)!
3	The sample space for tossing a coin once is	A. {T, T} B. {H, H} C. {H, T} D. None of these
4	Arithmetic mean between 14 and 18 is	A. 16 B. 17 C. 15 D. 32
5	How many comittees 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
6	Three unbiased coins are tossed. Then the probabilities of getting two heads is	A. 3/8 B. 1/8 C. 1/4 D. None of these
7	Form a group of 5 men and 3 women, a committee of 4 persons is to be selected randomly. The probability that there is a majority of men is	A. 1/4 B. 1/3 C. 1/2 D. 1/6
8	The value of n, when ${}^{n}P_{2}= 20$ is	A. 3 B. 4 C. 6 D. 5
9	What is the probability of being born on Wednesday?	A. 1/7 B. 1/2 C. 1/3 D. 1/8
10	How many necklaces can be made from 6 beads of different colours?	A. 120 B. 60 C. 24 D. 15
11	A bag contains 5 white, 7 red and 5 black balls. If four balls are drawn one by one with replacement, the probability that none is white is	A. (11/16)² B. (5/16)² C. (11/16)⁴ D. (5/16)⁴
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	8 . 7 . 6. 5 in factorial form is	
14	In how many ways can 5 persons be seated at a round table	A. 5! B. 4! C. 3! D. 120
15	Number of combination of zero or more things out of n different things	A. nPn B. nPr C. nCr D. 2n
16	How many arrangements of the letters of the word MATHEMATICS can be made	
		A. 50

17	A die is thrown 100 times. If getting an odd number is considered a success, the variance of the number of successes is	B. 25 C. 10 D. 100
18	A combination lock on a suitcase has 3 wheels each labeled with nine digits from 1 to 9. If an opening combination is a particular sequence of three digits with no repeats, the probability of a person guessing the right combination is	A. 1 / 500 B. 1 / 504 C. 1 / 252 D. 1 / 250
19	The probability that the sum of dots appearing in two successive thrown of two dice, in every time 7 is	A. 1/5 B. 1/36 C. 1/7 D. 1/63
20	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