

## ECAT Mathematics Chapter 9 Permutation, Combination and Probability

| Sr | Questions   | Answers Choice   |
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| 1  | Question Image  | A. 5<br>B. 10<br>C. 20<br>D. 30  |
| 2  | 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<br>B. 3 / 5<br>C. 4 / 5<br>D. None of these   |
| 3  | For two events A and B if $P(A) = P(A/B) = 1/4$ and $P(B/A) = 1/2$ , then   | A. A is sub-event of B B. A and B are mutually exclusive C. A and B are independent and P(A/B) = 3/4 D. None of these      |
| 4  | The sum of all odd numbers between 100 and 200 is   | A. 6200<br>B. 7500<br>C. 6500<br>D. 3750   |
| 5  | Two coins are tossed twice each. The probability that the head appears on the first toss and the same forces appear in the two tosses is                                | A. 1/4<br>B. 1/2<br>C. 1/3<br>D. 1/7   |
| 6  | Two unbiased dice are thrown. The probability that the total score is > 5 is  | A. 1 / 18<br>B. 7 / 18<br>C. 13 / 18<br>D. 11 / 18   |
| 7  | 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. <sup>n</sup> P <sub>m</sub> B. <sup>n</sup> C <sub>m</sub> x (m - 1)! C. <sup>n-1</sup> P <sub>m</sub> D. None of these |
| 8  | 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. 1 / 66<br>B. 3 / 66<br>C. 19 / 66<br>D. 47 / 66   |
| 9  | A sequence is a function whose domain is  | A. N B. Subset of N C. R D. None of these  |
| 10 | 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   |
| 11 | All letters of the word "AGAIN" are permuted in all possible ways and the words so formed (with or without meaning) are written as in dictionary, then the 50th word is | A. NAAGI<br>B. NAAIG<br>C. IAANG<br>D. INAGA   |
| 12 | The sum of all even numbers less than 100 is  | A. 2450<br>B. 2352<br>C. 2272<br>D. 2468   |
| 13 | nCn-r is equal to   | A. n! B. n-1Cr C. nCr D. None of these   |
| 14 | The domain of a finite sequence is a  | A. Set of natural numbers B. R C. Subset of N D. Proper subset of N  |
| 15 | 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<br>B. 4 / 13<br>C. 5 / 13  |

| 16 | 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<br>B. 1 / 504<br>C. 1 / 252<br>D. 1 / 250                 |
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| 17 | Question Image   | A. P(A) + P(B)<br>B. P(A) - P(B)<br>C. P(A) . P(B)<br>D. P(A) / P(B) |
| 18 | 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<br>B. 1/4<br>C. 1/3<br>D. 1/2                                 |
| 19 | Question Image   | A. 56<br>B. 7<br>C. 8<br>D. 8/7                                      |
| 20 | How many arrangements of the letters of the word MATHEMATICS can be made   | D. 8/7   |