CSAT

Probability

1. A bag contains 20 balls. 8 balls are green, 7 are white and 5 are red. What is the minimum number of balls that must be picked up from the bag blindfolded (without replacing any of it) to be assured of picking at least one ball of each colour? **(2017)**

a. 17

b. 16

c. 13

d. 11

2. A bag contains 15 red balls and 20 black balls. Each ball is numbered either 1 or 2 or 3.
20% of the red balls are numbered 1 and 40% of them are numbered 3. Similarly, among the black balls, 45% are numbered 2 and 30% are numbered 3. A boy picks a ball at random.
He wins if the ball is red and numbered 3 or if it is black and numbered 1 or 2.
What are the chances of his winning? **(2018)**

a. 1/2
b. 4/7
c. 5/9
d. 12 /13

Permutation & Combination

1. If 2 boys and 2 girls are to be arranged in a row so that the girls are not next to each other, how many possible arrangements are there? **(2017)**

a. 3

b. 6

c. 12

d. 24

2. How many five-digit prime numbers can be obtained by using all the digits 1, 2, 3, 4 and 5 without repetition of digits? **(2020)**

a. Zero

b. One

c. Nine

d. Ten

3. How many different 5-letter words (with or without meaning) can be constructed using all the letters of the word 'DELHI' so that each word has to start with D and end with I? **(2020)**

a. 24

b. 18

c. 12

d. 6

4. Using 2, 2, 3, 3, 3 as digits, how many distinct numbers greater than 30000 can be formed? **(2021)**

a. 3

b. 6

c. 9

d. 12

5. There are 6 persons arranged in a row. Another person has to shake hands with 3 of them so that he should not shake hands with two consecutive persons. In how many distinct possible combinations can the handshakes take place ? **(2021)**

a. 3

b. 4

c. 5

d. 6

6. The letters A, B, C, D and E are arranged in such a way that there are exactly two letters between A and E. How many such arrangements are possible? **(2022)**

a. 12

b. 18

c. 24

d. 36

7. A, B and C are three places such that there are three different roads from A to B, four different roads from B to C and three different roads from A to C. In how many different ways can one travel from A to C using these roads? **(2022)**

a. 10

b. 13

c. 15

d. 36

8. One non-zero digit, one vowel and one consonant from English alphabet (in capital) are to be used in forming passwords, such that each password has to start with a vowel and end with a consonant. How many such passwords can be generated? **(2022)**

a. 105

b. 525

c. 945

d. 1050

Simple Interest & Compound Interest

A person bought a refrigerator worth Rs. 22,800 with 12.5% interest compounded yearly. At the end of first year he paid Rs. 8,650 and at the end of second year Rs. 9,125. How much will he have to pay at the end of third year to clear the debt? **(2018)**

a. Rs. 9,990

b. Rs. 10,000

c. Rs. 10,590

d. Rs. 11,250

Keys

Probability

1-B	2-B

Permutation & Combination

1-C	5-B
2-A	6-C
3-D	7-C
4-B	8-C

S.I & C.I

1-D

Thanks!