WANDOOR GANITHAM - S S L C UNIT TEST 2021

2.03BE **MATHEMATICS OF CHANCE** **Total Score : 20**

Time : 40 minutes

1. A bag contains 12 red and 8 blue balls . Take one ball from this .

a) What is the probability of getting a red ball ?

b) What is the probability of getting a blue ball ? **(2)**

2. Each letter of the word " STATEMENT " is written on paper slips and put in a box . A slip is to be drawn from it .

a) What is the probability of getting the letter T ?

b) What is the probability of not getting the letter T ? **(2)**

3. One is asked to say a three -digit number .

a) How many three digit numbers are there ?

b) What is the probability of getting a multiple of 111 ? **(2)**

4. A bag contains 40 mangoes and some oranges . Take one from this . The probability of getting a mango is $\frac{4}{7}$ **.**

a) How many fruits are there in the box ?

b) What is the probability of getting an orange ?

c) If 15 mangoes are taken out from the box , what will be the probability of getting an orange ? **(3)**

5. Numbers from 1 to 20 are written on slips of paper and put in a box . A slip is to be drawn from it .

a) What is the probability that the number written in it is a multiple of 2 ?

b) What is the probability that the number written in it is a multiple of 3 ?

c) What is the probability that the number written in it is a multiple of 6 ? **(3)**

6. A bag contains 10 white and 8 blue balls . In another box there are 15 white and 12 blue balls . Take one ball from this

a) What is the probability of getting a white ball from the first bag ?

b) What is the probability of getting a white ball from the second bag ?

c) If all the balls are put in a single bag , what is the probability of getting a white ball from it ?

d) If all the balls are put in a single bag , the probability of getting a white ball is x and probability of getting a blue ball is y ,what is the value of $x + y$? (4)

7. One is asked to say a two -digit number .

a) How many two digit numbers are there ?

b) What is the smallest possible product of the digits ?

c) What is the largest possible product of the digits ?

d) What is the probability of the product of the digits being a prime ? (4)