WANDOOR GANITHAM – S.S.L.C STUDY MATERIAL 2021

FOCUS AREA - QUESTION BANK - MATHEMATICS OF CHANCE

1	*A coin is tossed .* **a)** *What is the the probability of getting a head ?* **b)** *What is the the probability of not getting a head ?*
2	*In a class there are 30 boys and 20 girls . One student is to be selected as leader .* **a)** *What is the probability that the class leader will be a girl ?* **b)** *What is the probability that the class leader will not be a girl ?*
3	*Each letter of the word " MALAYALAM " 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 A ?* **b)** *What is the probability of not getting the letter A ?*
4	*In a class there are 25 boys and 35 girls . One student is to be selected as leader .* **a)** *What is the probability that the class leader will be a boy ?* **b)** *What is the probability that the class leader will not be a boy ?* **c)** *What is the probability that the class leader will be a boy if 5 girls are absent ?*
5	*A bag contains 6 white and 9 blue balls . In another box there are 8 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 ?*

SARATH A S , GHS ANCHACHAVADI , MALAPPURM

6	*Numbers from 1 to 10 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 an even number ?* *b) What is the probability that the number written in it is an odd number ?* *c) What is the probability that the number written in it is a prime number ?*
7	*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 ?*
8	*Numbers from 1 to 25 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 an even number ?* *b) What is the probability that the number written in it is an odd number ?* *c) What is the probability that the number written in it is a perfect square ?*
9	*A bag contains 10 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 ?*
10	*A box contains 20 apples and 30 oranges . Take one from this .* *a) What is the probability of getting an apple ?* *b) What is the probability of getting an orange ?* *c) If 10 more apples are put in the box , What is the probability of getting an orange ?*

11	*A bag contains* **15** *white and* **25** *green beads . Take one bead from this*
	a) *What is the probability of getting a green bead ?*
	b) *What is the probability of getting a white bead ?*
	c) *How many more white beads are to be put in the box to make the probability of getting a green bead is* $\frac{1}{2}$ *?*
12	*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 ?*
13	*A bag contains* **15** *red and some green beads . Take one bead from this .*
	The probability of getting a blue bead is $\frac{4}{9}$.
	a) *What is the probability of getting a red bead ?*
	b) *How many blue beads are there in the bag ?*
	c) *If 3 more red beads are put in the bag , what is the probability of getting a blue beard ?*
14	*A box contains* **90** *beads , some black and some yellow . Take one bead from this .*
	The probability of getting a yellow bead is $\frac{2}{3}$.
	a) *How many yellow beads are there in the box ?*
	b) *What is the probability of getting a black bead ?*
	c) *If* **10** *yellow beads are taken out from the bag , what is the probability of getting a black beard ?*

15	*A box contains* **50** *fruits , some apples and some oranges .Take one from this .*
	The probability of getting an orange is $\dfrac{7}{10}$.
	a) *How many oranges are there in the box* **?**
	b) *What is the probability of getting an apple* **?**
	c) *How many more apples are to be put to the box to make the probability of getting an orange is* $\dfrac{5}{9}$ **?**

16	*A dice with faces numbered from* **1** *to* **6** *is rolled .*
	a) *What is the probability of getting an even number* **?**
	b) *What is the probability of getting an odd number* **?**
	c) *What is the probability of getting a perfect square* **?**

17	*A dice with faces numbered from* **1** *to* **6** *is rolled .*
	a) *What is the probability of getting an even number* **?**
	b) *What is the probability of getting an odd number* **?**
	c) *What is the probability of getting a prime number* **?**

18	*One is asked to say a two -digit number .*
	a) *How many two digit numbers are there* **?**
	b) *What is the probability of both digits being the same* **?**
	c) *What is the probability of both digits being not same* **?**

19	*One is asked to say a two -digit number .*
	a) *How many two digit numbers are there* **?**
	b) *What is the probability of getting a multiple of* **10** **?**
	c) *What is the probability of getting a multiple of* **11** **?**

20	*One is asked to say a two -digit number .*
	a) How many two digit numbers are there ?
	b) What is the probability of getting a multiple of 5 ?
	c) What is the probability of getting a multiple of 10 ?
	d) What is the probability of one of the digit being zero and the other being a prime ?
21	*One is asked to say a two -digit number .*
	a) How many two digit numbers are there ?
	b) What is the probability of only one of the digits being 1 ?
	c) What is the probability of the product of the digits being a prime ?
22	*One is asked to say a two -digit number .*
	a) How many two digit numbers are there ?
	b) What is the smallest possible sum of the digits ?
	c) What is the largest possible sum of the digits ?
	d) What is the probability of the sum of the digits being a prime ?
23	*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 perfect square ?
24	*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 ?

25	*One is asked to say a two -digit number .*
	a) *How many two digit numbers are there* ?
	b) *What is the probability of the digits being the same* ?
	c) *What is the probability of the first digit being larger* ?
	d) *What is the probability of the first digit being smaller* ?
26	*One is asked to say a three -digit number .*
	a) *How many three digit numbers are there* ?
	b) *What is the probability of the digits being the same* ?
	c) *What is the probability that only two of the digits being 1* ?
	d) *What is the probability that the product of the digits being a prime* ?
27	*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 10* ?
	c) *What is the probability of getting a multiple of 11* ?
28	*Consider a leap year .*
	a) *How many days are there in a leap year* ?
	b) *What is the probability of occurring 53 saturdays in a leap year* ?
	c) *What is the probability of occurring 53 saturdays in a non - leap year* ?
29	**a)** *How many days are there in the month January* ?
	b) *What is the probability of occurring 5 sundays in January* ?
	c) *What is the probability of occurring 5 sundays in February of a leap year* ?

EXTRA QUESTIONS

30 *In class* **10** *A there are* **30** *boys and* **20** *girls . In class* **10** *B there are* **40** *boys and*

30 girls . One student is to be selected from each class .

a) *In how many different ways we can select a pair of students , one from each ?*

b) *What is the probability of both being girls ?*

c) *What is the probability of getting one boy and one girl ?*

d) *What is the probability of getting at least one girl ?*

31 *A box contains* **10** *slips numbered from* **1** *to* **10** *and another box contains* **20** *slips*

numbered from **1** *to* **20** *. One slip is taken from each box .*

a) *In how many different ways we can select a pair of slips , one from each ?*

b) *What is the probability of both being even ?*

c) *What is the probability of getting an even number and an odd number ?*

d) *What is the probability of getting at least an even number ?*