ASSIGNMENT
CLASS – IX
CH. – 15(PROBABILITY)

1. 10 defective pens are accidentally mixed with 90 good ones. It is not possible to just look at a pen and tell whether or not it is defective. One pen is taken out at random from this lot. Determine the probability that the pen taken out is a good one.

2. A box contains 3 blue, 2 white, and 4 red marbles. If a marble is drawn at *random* from the box   what is the probability that it will be (i) white? (ii) blue? (iii) red?

3. A box contains 90 discs which are numbered from 1 to 90. If one disc is drawn at random from the   box,find the probability that it bears (i) a two-digit number (ii) a perfect square number (iii) a number divisible by 5.

4. A lot consists of 144 ball pens of which 20 are defective and the others are good. Nuri will buy a pen if it   is good, but will not buy if it is defective. The shopkeeper draws one pen at random and gives it to her. What is the probability that (i) She will buy it? (ii) She will not buy it ?

5. A die is thrown once. Find the probability of getting (i) a prime number; (ii) a number lying between 2 and 6; (iii) an odd number

6. In a leap year, what is the probability of 53 Sunday?

7. In an ordinary year, what is the probability of 53 Monday?

8. In a leap year, what is the probability of 52 Sunday?

9. In an ordinary year, what is the probability of 52 Monday?

10. A card is drawn at random from well shuffled deck of 52 cards .Find the probability that card is (i) a black card.   (ii) a face card. (iii) a spade card. (iv) a king (v) a king or red card. (vi) a queen and black card.

11. In a survey of 364 children aged 19-36 months, it was found that 91 liked to eat potato chips. If a child is selected at random, what is the probability that he/she does not like to eat potato chips.

12. Cards with numbers 1,2,3,4………. 100 are placed in a box and mixed thoroughly one card is drawn. What is the probability that the card drawn is.
    a) A prime no. has less than 30?   (b)A multiple of 5 and 7?
    (c) A multiple of 5 or 7?

13. A recent survey found that ages of workers in a factory are distributed as follow.

Age in year	20-29	30-39	40-49	50-59	60 and above
No. of worker	38	27	86	46	3

 If a person is selected at random .find the probability that the person is .

    (1) 40 year or more

(2) Under 40 year

(3) Under 60 but over 39 year

14. 100 card marked from 2 to 101 are placed in a box and mixed thoroughly. one card is drawn from the box. Find the probability that number on the card is.

(a) An even number   (b) a number which is perfect square

(c) a prime number less than 20.

15. Two dice are thrown simultaneously 500 times. Each time the sum of two numbers
appearing on their tops is noted and recorded as given in the following table

Sum	2	3	4	5	6	7	8	9	10	11	12
Frequency	14	30	42	55	72	75	70	53	46	28	15

If the dice are thrown once more, what is the probability of getting a sum

(i) 3?   (ii) more than 10?   (iii) less than or equal to 5?   (iv) between 8 and 12?

16. Over the past 200 working days, the number of defective parts produced by a machine is given in the following table:

Number of defective parts	0	1	2	3	4	5	6	7	8	9	10	11	12	13
Days	50	32	22	18	12	12	10	10	10	8	6	6	2	2

Determine the probability that tomorrow's output will have
(i) no defective part
(ii) atleast one defective part
(iii) not more than 5 defective parts
(iv) more than 13 defective parts