I. Very Short Answer Type Questions

1. In tossing a coin 100 times, head appears 52 times. What is the probability of head for the coin?
2. In a throw of a die, find the probability of getting an odd number?

II. Short Answer Type Questions-I

3. A die is rolled 200 times and its outcomes are recorded as below.

Outcome	1	2	3	4	5	6
Frequency	25	35	40	28	42	30

Find the probability of getting

(*i*) an even number (*ii*) a multiple of 3

4. A coin is tossed 1000 times with the following frequencies.

Head: 455 Tail: 545

Compute the probability for each event.

III. Short Answer Type Questions-II

5. The weights of 60 persons in a group are given below.

Weight (in kg)	60	61	62	63	64	65
No. of persons	5	18	4	16	5	12

Find the probability that a person selected at random has weight

(*i*) less than 65 kg (*ii*) between 61 kg and 64 kg (*iii*) equal to or more than 64 kg.

6. Three coins are tossed simultaneously 200 times with the following frequencies of different outcomes.

Outcome	3 heads	2 heads	1 head	No head
Frequency	20	56	84	40

If the three coins are simultaneously tossed again, find the probability of

(*i*) getting less than 3 heads (*ii*) getting 2 heads (*iii*) getting at most 1 head

7. The marks obtained by 100 students of class IX of a school in Mathematics out of 100 are given as under.

Marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70 and above
Number of students	0	2	9	11	22	26	18	12

If a student is chosen at random from these students, then find the probability that the chosen student gets

(*i*) Less than 70% marks (*ii*) 60% or more marks

(*iii*) more than or equal to 30% marks but less than 50% marks

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

I. Very Short Answer Type Questions

1. What is the probability of a sure event?
2. What is the probability of an impossible event?
3. Can $\frac{7}{5}$ be the probability of an event?
4. A dice is rolled 600 times and the occurrence of the outcomes 1, 2, 3, 4, 5 and 6 are given below:

Outcome	1	2	3	4	5	6
Frequency	200	30	120	100	50	100

   Find the probability of getting a prime number.
5. Two coins are tossed simultaneously for 600 times and the outcomes are as follows:

   Two heads: 200 One head: 160 No head: 240

   Find the probability of getting one head.

6. In an experiment, 100 drawing pins were dropped on a floor. 73 landed point up and the rest landed point down. A pin is selected at random and dropped. What is the probability that the pin will land point down?

7. A coin is tossed 25 times and the data is recorded as follows:

   Heads: 15 Tails: 10

   Find the probability of not getting a head.[*CBSE* 2012]

8. In an experiment, a coin is tossed 500 times. If head turns up 280 times, then find the probability of getting a tail.

9. A die is thrown six times and the number on it is plotted as given below:

Number of die	1	2	3	4	5	6
Frequency	1	1	1	1	1	1

   What is the probability that it is a prime number?

II. Short Answer Type Questions-I

10. Three coins are tossed simultaneously 200 times with the following frequencies of different outcomes:

Number of tails	0	1	2	3
Frequency	35	45	42	78

    Compute the probability of getting:

    (*i*) At least 2 heads (*ii*) All heads

11. Following table shows the marks obtained by 30 students in a class test:

Marks obtained	70	58	60	52	65	75	68
Number of students	3	5	4	7	6	2	3

    Find the probability that a student secures

    (*i*) 60 marks (*ii*) less than 60 marks.

12. In a cricket match, a batswoman hits a boundary 6 times out of 30 balls she plays. Find the probability that she did not hit a boundary.

13. Eleven bags of wheat flour, each marked 5 kg, actually contained the following weights of flour (in kg):

    4.97, 5.05, 5.08, 5.03, 5.00, 5.06, 5.08, 4.98, 5.04, 5.07, 5.00

    Find the probability that any of these bags chosen at random contains more than 5 kg of flour.

14. To know the opinion of the students about the subject Statistics, a survey of 200 students was conducted. The data is recorded in the following table.

Opinion	No. of students
Like	135
Dislike	65

    Find the probability that a student chosen at random

    (*i*) likes Statistics (*ii*) does not like it.