9 Class Math Tuition Assignment

Assignment – 15

Assigned To = **All 9 Class Students**

Chapter = Probability

MM = 30

Q1. **A coin is tossed 1000 times with the following sequence:**

Head: 455, Tail: 545

Compute the probability of each event.

Q2. Two coins are tossed simultaneously 500 times with the following frequencies of different outcomes:

Two heads: 95 times

One tail: 290 times

No head : 115 times

Find the probability of occurrence of each of these events.

Q3. Three coins are tossed simultaneously 100 times with the following frequencies of different outcomes:

Outcome	No Head	One Head	Two Heads	Three Heads
Frequency	14	38	36	12

If the three coins are simultaneously tossed again, compute the probability of:

(i) 2 heads coming up

(ii) 3 heads coming up

(iii) At least one head coming up

(iv) Getting more heads than tails

(v) Getting more tails than heads

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Q4. **In a cricket match, a batsman hits a boundary 6 times out of 30 balls he plays. Find the probability that on a ball played:**

(i) He hits boundary (ii) He does not hit a boundary.

Q5. **The percentage of marks obtained by a student in monthly unit tests are given below:**

Unit Test	I	II	III	IV	V
Percentage of mark obtained	69	71	73	68	76

Find the probability that the student gets

(i) More than 70% marks

(ii) Less than 70% marks

(iii) A distinction

Q6. **To know the opinion of the students about Mathematics, a survey of 200 students were conducted. The data was recorded in the following table:**

Opinion	Like	Dislike
Number of students	135	65

Find the probability that student chosen at random:

(i) Likes Mathematics (ii) Does not like it.

Q7. **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.

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Q8. An organisation selected 2400 families at random and surveyed them to determine a relationship between income level and the number of vehicles in a family. The information gathered is listed in the table below:

Monthly Income	Vehicles per family			
	0	1	2	Above 2
Less than 7000	10	160	25	0
7000-10000	0	305	27	2
10000-13000	1	535	29	1
13000-16000	2	469	59	25
16000 or more	1	579	82	88

Suppose a family is chosen. Find the probability that the family chosen is

(i) earning ₹10000 – 13000 per month and owning exactly 2 vehicles.

(ii) earning ₹16000 or more per month and owning exactly 1 vehicle.

(iii) earning less than ₹7000 per month and does not own any vehicle.

(iv) earning ₹13000 – 16000 per month and owning more than 2 vehicles.

(v) owning not more than 1 vehicle.

Q9. Find the probability that a student of the class was born in May.

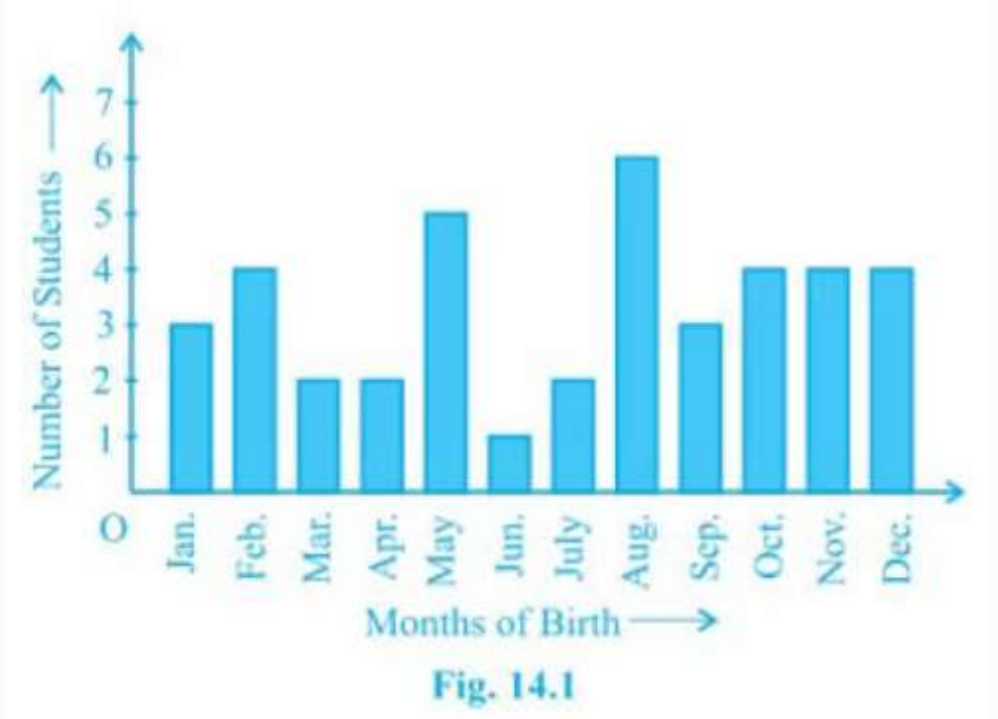

Fig. 14.1

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Q10. Define the following

(i) Event

(ii) Probability

(iii) Outcome

(iv) Trial

(v) Random Experiment

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