Mathematics

Practice Test Paper 1

(Chapter 13: Statistics)

Class X | 2026–27

Time Allowed: 45 Minutes | Maximum Marks: 25

General Instructions

1. All 13 questions are compulsory. The paper has four sections: A, B, C and D.
2. Section A - 5 marks; Section B - 8 marks; Section C - 9 marks; Section D - 3 marks.
3. Choose one correct option in Section A. Show the necessary steps and reasoning in Sections B, C and D.
4. Round non-terminating answers to two decimal places. Use of calculators is not allowed.

SECTION A

(5 questions × 1 mark = 5 marks)

1. The class mark of 20–30 is:

(A) 20 (B) 25

(C) 30 (D) 10

2. For the distribution below, the modal class is:

Class interval	0–10	10–20	20–30	30–40
Frequency	4	9	15	7

(A) 20–30 (B) 30–40

(C) 0–10 (D) 10–20

3. The cumulative frequency for marks below 30 is:

Marks	0–10	10–20	20–30	30–40
Frequency	5	8	10	8

(A) 8 (B) 15

(C) 23 (D) 31

4. In the direct-method formula, Σf represents:

(A) Mean frequency (B) Number of classes

(C) Sum of class marks (D) Total frequency

5. Using the empirical relation, if mean = 18 and median = 20, the estimated mode is:

(A) 24 (B) 26

(C) 16 (D) 22

SECTION B

(4 questions × 2 marks = 8 marks)

6. Find the mean score for the short distribution below.

Score	10–20	20–30	30–40
Frequency	2	5	3

7. The table describes 36 students. Find the missing frequency p.

Marks	0–10	10–20	20–30	30–40
Frequency	6	9	p	8

8. Prepare the less-than cumulative frequencies at 5, 10, 15 and 20 for the data below.

Class interval	0–5	5–10	10–15	15–20
Frequency	3	7	8	4

9. Using the empirical relation, estimate the mode when the mean is 31 and the median is 34.

SECTION C

(3 questions × 3 marks = 9 marks)

10. The table records plants in 20 houses. Find the mean number of plants per house by the direct method.

Plants	Frequency
0–2	1
2–4	2
4–6	1
6–8	5
8–10	6
10–12	2
12–14	3

11. The table gives journey times to school. Calculate the median journey time.

Time (min)	0–10	10–20	20–30	30–40	40–50
Frequency	4	8	15	9	4

12. The grouped scores of a quiz are shown. Estimate the modal score.

Score	0–10	10–20	20–30	30–40	40–50	50–60
Frequency	3	9	18	12	6	2

SECTION D

(Application Based Question - 3 marks)

13. A library recorded reading times for a group of pupils. Use the grouped data to answer the following.

Time (min)	0–10	10–20	20–30	30–40
Frequency	4	10	12	4

(i) Find the total number of observations.

(ii) State the modal class.

(iii) Find the grouped mean.