Mathematics

Practice Test Paper 2

(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. Which is the median class of the distribution below?

Class interval	0–10	10–20	20–30	30–40	40–50
Frequency	3	6	12	6	3

(A) 40–50 (B) 10–20
(C) 20–30 (D) 30–40

2. How many observations belong to the class 10–20?

Class interval	Cumulative frequency
Less than 10	4
Less than 20	13
Less than 30	22

(A) 13 (B) 22
(C) 4 (D) 9

3. If x = 45, assumed mean a = 35 and h = 5, the step-deviation u equals:

(A) 2 (B) 9
(C) −2 (D) 1

4. The empirical relation connecting mean, median and mode is:

(A) Mean = 3 Mode − 2 Median (B) Mode = 3 Median − 2 Mean
(C) Median = 3 Mean − 2 Mode (D) Mode = Mean + Median

5. The class size of 35–50 is:

(A) 42.5 (B) 50
(C) 15 (D) 35

SECTION B

(4 questions × 2 marks = 8 marks)

6. The 45 parcels in this table are grouped by mass. Find p and the number with mass below 4 kg.

Mass (kg)	0–2	2–4	4–6	6–8
Parcels	5	11	p	9

7. Find the class marks and then Σfx for this distribution.

Class interval	10–14	14–18	18–22
Frequency	2	3	5

8. For a grouped distribution, a = 40, h = 5, Σfu = 24 and Σf = 30. Find the mean.

9. Find the median of the grouped observations below.

Class interval	0–10	10–20	20–30	30–40
Frequency	3	7	8	2

SECTION C

(3 questions × 3 marks = 9 marks)

10. Find the mean daily wage of the 50 workers by the assumed mean method.

Wage (Rs)	500–520	520–540	540–560	560–580	580–600
Frequency	12	14	8	6	10

11. All delivery times are from 0 minutes up to 50 minutes. Use the cumulative table to estimate the median time.

Time (min)	Cumulative frequency
Less than 10	6
Less than 20	16
Less than 30	32
Less than 40	44
Less than 50	50

12. The mean of this distribution is 10.8. Find p.

Class interval	0–4	4–8	8–12	12–16	16–20
Frequency	3	p	5	8	2

SECTION D

(Application Based Question - 3 marks)

13. A sports club grouped the ages of its junior members. Use the grouped data to answer the following.

Age (years)	10–12	12–14	14–16	16–18
Frequency	3	7	8	2

(i) Find the cumulative frequency below 14.

(ii) Identify the median class.

(iii) State the class mark of the median class.