RK VISION ACADEMY

NEET | IIT – JEE | FOUNDATION

CBSE PRACTICE PAPER(2024)

(Mathematics)

Grade : X **Marks: 40 marks**

Chapter: STATISTICS SET 1 **Time: 90 minutes**

SECTION A

(This section comprises of Multiple-choice questions (MCQ) of 1 mark each.)

1. **The average weight of a group of 25 men was calculated to be 78.4 kg. It was discovered later that one weight was wrongly entered as 69 kg instead of 96 kg. What is the correct average?**

(A) 75.76 (B) 77.56 (C) 79.48 (B) 80.30

2. **For arranged data, the median is the**

(A) Most common observation (B) Middlemost observation (C) Least common observation (D) Average of the two most common observations

3. **The mode of the following data is:**

x_i	10	14	18	21	25
f_i	10	15	7	9	9

(A) 16 (B) 14 (C) 12 (D) 10

4. **Find the mode of the following data.**

Class interval	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
Frequency	7	13	14	5	11

Between 20 and 22.5 Between 27.5 and 30 Equal to 25 Between 22.5 and 27.5, but not equal to 25

5. **There are lottery tickets labelled with numbers from 1 to 500. I want to find the number which is most common in lottery tickets. What quantity do I need to use?**

(A) Mode (B) Mean (C) Median (D) None of the above

6. **Which of the following is not a measure of central tendency?**

(A) Mode (B) Range (C) Median (D) Mean

7. **Given that the mean of first n natural numbers is 5n/9, then calculate "n".**

(a) 9 (b) 6 (c) 7 (d) 10

8. **If 35 is removed from the data, 30, 34, 35, 36, 37, 38, 39, 40, then how much does the median increase by?**

(a) 1 (b) 0.5 (c) 2 (d) 1.5

9. **For 'more than ogive', the x-axis represents**

(A) frequency (B) lower limits of class intervals (C) mid-values of class-intervals (D) upper limits of class-intervals

10 **Find the mode of the following data.**

Class interval	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
Frequency	7	13	14	5	11

Between 20 and 22.5 Between 27.5 and 30 Equal to 25 Between 22.5 and 27.5, but not equal to 25

SECTION B

(This section comprises of very short answer type-questions (VSA) of 2 marks each.)

11 Construct the cumulative frequency distribution of the following distribution :

Class	12.5-17.5	17.5-22.5	22.5-27.5	27.5-32.5	32.5-37.5
Frequency	2	22	19	14	13

12 Find Mean if 12,15,14,13,12,16

13 Find median 9,4,5,7,2,11,5,6,7,14.

SECTION C

(This section comprises of short answer type questions (SA) of 3 marks each)

14 The median of the following data is 16. Find the missing frequencies a and b, if the total of the frequencies is 70.

Class	0-	5-	10-	15-	20-	25-	30-	35-
Frequency	12	a	12	15	b	6	6	4

15 Find the sum of first 51 terms of an AP -Those second and third terms are 14 and 18, respectively.

16 Find the unknown entries m, n, o, p, q and r in the following distribution of heights of students in a class. The total number of students is 50. (5)

Height (in	150 – 155	155 – 160	160 – 165	165 – 170	170 – 175	175 – 180
Frequency	12	n	10	P	q	2
Cumulative	m	25	0	43	48	r

SECTION D

(This section comprises of long answer-type questions (LA) of 5 marks each)

17 Find the unknown entries a, b, c, d, e and f in the following distribution of heights of students in a class

Height (in cm)	Frequency	Cumulative frequency
150-155	12	A
155-160	b	25
160-165	10	C
165-170	d	43
170-175	e	48
175-180	2	F
Total	50	

18 Find the median for the following frequency distribution

Class	0-8	8-16	16-24	24-32	32-40	40-48
Frequency	8	10	16	24	15	7

19 During the medical check up of 35 students of a class, their weight were recorded as follows.

Weight (in kg)	Number of students
Less than 38	0
Less than 40	3
Less than 42	5
Less than 44	9
Less than 46	14
Less than 48	28
Less than 50	32