M.M.: 30 **Time: 1 Hour**

General Instructions:

(i) There are 9 questions in this paper.

(ii) All questions are compulsory.

1. Find the mode of the following data:

Class	0 – 20	20 – 40	40 – 60	60 – 80	80 – 100	100 – 120	120 – 140
Frequency	6	8	10	12	6	5	3

2. Find the median of the data, using an empirical relation when it is given that Mode = 12.4 and Mean = 10.5

3. Following distribution gives cumulative frequencies of more than type

Marks obtained	More than or equal to 5	More than or equal to 10	More than or equal to 15	More than or equal to 20
Number of students (cumulative frequency)	30	23	8	2

Change the above data to continuous grouped frequency distribution.

4. In the following frequency distribution, find the median class.

Height (in cm)	140 – 145	145 – 150	150 – 155	155 – 160	160 – 165	165 – 170
Frequency	5	15	25	30	15	10

5. Consider the following frequency distribution of the heights of 60 students of a class.

Height (in cm)	No. of students
150 – 155	15
155 – 160	13
160 – 165	10
165 – 170	8
170 – 175	9
175 – 180	5

Find the upper limit of the median class in the given data.

6. Find the median of the following distribution:

Marks	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50	50 – 60
Number of students	5	8	20	15	7	5

7. 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	5 – 10	10 – 15	15 – 20	20 – 25	25 – 30	30 – 35	35 – 40
Frequency	12	a	12	15	b	6	6	4

8. The mean of the following frequency distribution is 25. Find the value of f.

Class	0 – 10	10 – 20	20 – 30	30 – 40	40 – 50
Frequency	5	18	15	f	6

9. A class teacher has the following absentee record of 40 students of a class for the whole term. Find the mean number of days a student was absent.

Number of days	0 – 6	6 – 12	12 – 18	18 – 24	24 – 30	30 – 36	36 – 40
Number of students	10	11	7	4	4	3	1