Questions of 15 marks

1. Work out mean, median and mode of the given distribution of scoring.

Weekly hrs on TV (x)	0-4	5-9	10-14	15-19	20-24	25-29
No of students (f)	4	5	5	6	3	2

2. Calculate range, variance and standard deviation by using the data of Q. No 1.
3. Calculate mean, median and mode for the following data:-

Seconds	Frequency
51 - 55	2
56 - 60	7
61 - 65	8
66 - 70	4

4. Calculate variance and standard deviation from the data given in Q No. 3.
5. Calculate the appropriate measure of central tendency for the following data:-

Length (mm)	Frequency
150 - 154	5
155 - 159	2
160 - 164	6
165 - 169	8
170 - 174	9
175 - 179	11
180 - 184	6
185 & above	3

6. The ages of the 112 people who live on a tropical island are grouped as follows:

Age	Number
Below 9	20
10 - 19	21
20 - 29	23
30 - 39	16
40 - 49	11
50 - 59	10
60 - 69	7
70 - 79	3
80 - 89	1

Calculate the most appropriate measure of central tendency

7. In a class of students, 9 students scored 50 to 60, 7 students scored 61 to 70, 9 students scored 71 to 85, 12 students scored 86 to 95 and 8 students scored 96 to 100 in the subject of mathematics. Estimate the standard deviation.

8. A sample of college students was asked how much they spent monthly on a cell phone plan (to the nearest Rs). Calculate the most appropriate measure of central tendency.

Monthly Cell Phone Plan Cost (Rs)	Number of Students
100 - 199	8
200 - 299	16
300 - 399	21
400 - 499	11
500 - 599	4

9. The following data represent the difference in scores between the winning and losing teams in a sample of 15 college football bowl games from 2004-2005. Calculate mean and variance.

Point Difference	Number of Bowl Games
1 - 5	8
6 - 10	0
11 - 15	2
16 - 20	3
21 - 25	1
26 - 30	0
31 - 35	1

10. The following table shows the distribution of the number of hours studied each week (on average) for a sample of 100 college students. Calculate mean and standard deviation.

Hours studied ed per Week	Number of Students
0 - 9	24
10 - 19	14
20 - 29	39
30 - 39	18
40 - 49	5

11. The following data represent the annual rainfall distribution in Cherrapunji, for 25 years from 1990 to 2014. Calculate variance and standard deviation.

Rainfall (inches)	Number of Years
60 - 64	1
65 - 69	3
70 - 74	5
75 - 79	8
80 - 84	5
85 - 89	2
90 - 94	0
95 - 99	1

12. The following data represent the age distribution of a sample of 70 women having multiple-delivery births in 2018. Calculate mean and variance.

Age	Number
15 - 19	1
20 - 24	5
25 - 29	16
30 - 34	28
35 - 39	17
40 - 44	3

Questions of 5 marks

1. Point out the relationship between mean, median and mode.
2. What are the properties of mean?
3. What are the advantages and disadvantages of mean?
4. What are the advantages and disadvantages of median?
5. Calculate mean, median and mode from the following data:- 29,24,22,29,35 &32
6. What is the utility of measures of dispersion?