R

11753/NJ

D–1/2111

COMPUTER ORIENTED

STATISTICAL METHODS–I

Paper–1103T

Semester–I

Time Allowed : 3 Hours]   [Maximum Marks : 30

Note : The candidates are required to attempt **two** questions each from Sections A and B carrying 4 marks each and the entire Section C consisting of 7 short answer type questions carrying 2 marks each.

SECTION—A

1. Distinguish between Primary and Secondary Data. Give a brief account of the Chief methods for collecting Primary Data.   4

2. Present the following information in a suitable tabular form, supplying the figures not directly given :   4

   In 2,015 out of total 2,000 workers in a factory. 1,550 were members of a Trade union. The number of Women workers employed was 250, out of which 200 did not belong to any Trade union. In 2,020, the number of union workers was 1,725 of which 1,600 were men. The number of non-union workers was 380, among which 155 were women.

3. Draw a bar chart for the following Data showing

the percentage of total population in Villages and Towns : 4

Percentage of total population in

	Villages	Towns
Infants and young Children	13.7	12.9
Boys and Girls	25.1	23.2
Young Men and Women	32.3	36.5
Middle-age Men and Women	20.4	20.1
Elderly persons	8.5	7.3

4. The following table gives the frequency distribution of the weekly wages (in ₹'000) of 100 workers in a factory : 4

Weekly wages	No. of workers
20-24	4
25-29	5
30-34	12
35-39	23
40-44	31
45-49	10
50-54	8
55-59	5
60-64	2

Draw the histogram and frequency polygon of the distribution.

SECTION—B

5. For a certain frequency table which has only partly reproduced here, the mean was found to be 1.46 :

No. of Accidents	No. of days
0	46
1	?

No. of Accidents	No. of days
2	?
3	25
4	10
5	5
Total	**200**

Calculate the missing frequencies. 4

6. Calculate the mean deviation form mean for the following Data : 4

Class-interval	2-4	4-6	6-8	8-10
Frequency	3	4	2	1

7. Calculate the Karl Pearson's co-efficient of skewness from the following Data : 4

Size	1	2	3	4	5	6	7
Frequency	10	18	30	25	12	3	2

8. The first four moments of a distribution about the origin are 1, 4, 10 and 46 respectively. Obtain the various characteristics of the distribution on the basis of the information given. Comment upon the nature of the distribution. 4

SECTION—C

9. Write in brief on the following : 7×2=14

(i) State the name of the various types of graphs used for presenting a frequency distribution.

(ii) What do you mean by Histogram?

(iii) Define the Less and More than ogives.

(iv) State the principles underlying classification of Data.

(v) Distinguish between Skewness and Kurtosis.

(vi) Prove that for any frequency distribution, Kurtosis is greater than Unity.

(vii) What do you understand by absolute and relative measure of Dispersion?