

Reg. No. :

Name :

First Semester B.Sc. Degree Examination, November 2019

First Degree Programme Under CBCSS

Statistics

Core Course I

ST 1141 : STATISTICAL METHODS – I

(2018 Admission onwards)

Time : 3 Hours

Max. Marks : 80

SECTION – A

Answer **all** questions. **Each** carries **1** mark.

1. Data taken from Agricultural Statistics in India will be considered as _____ data.
2. Define Cartograms.
3. Points of intersection of the two ogives corresponds to the _____.
4. Data can be classified according to colour. They are measured on _____ sale.
5. For a frequency distribution define r^{th} moment about A.
6. Classification based on time is called _____.
7. Define G.M.
8. Define Coefficient of Variation.
9. State true or false : Variance is independent of change of origin and scale.
10. Find arithmetic mean of the numbers 2,4,6,7,9,10,17.

(10 × 1 = 10 Marks)

P.T.O.

SECTION – B

Answer any **eight** questions. **Each** carries **2** marks.

11. Explain the merits of Sampling over Census.
12. Define Kurtosis and suggest a measure for it.
13. What are the functions of Statistics?
14. 10 is the mean of a set of 7 observations and 5 is the mean of a set of 3 observations. Find the mean of the combined set.
15. Define pictogram. Explain with the help of an example.
16. Prove that for any discrete distribution, standard deviation is not less than mean deviation from mean.
17. Define histogram.
18. Give any four sources of secondary data.
19. Explain Sheppard's correction for moments.
20. List out any four Merits of Median.
21. Represent using appropriate diagram.
Student Name A B C D E F
Marks 72 66 35 76 29 50
22. In a moderately asymmetrical distribution Mean is 24.6 and median is 25.1 find the value of mode.

(8 × 2 = 16 Marks)

SECTION – C

Answer any **six** questions. **Each** carries **4** marks.

23. Calculate Mean deviation about Mean: 8,24,12,16,20,10.
24. What are the limitations of Statistics?
25. Explain ratio scale and nominal scale.

26. Formulate frequency table for the following data.

5, 15, 51, 12, 18, 23, 7, 19, 59, 47, 63, 82, 33, 31, 32, 67, 52, 45, 64.

27. Compute median:

Class	0-6	7-13	14-20	21-27	28-34	35-41
f	8	17	28	15	9	3

28. Compare primary and secondary data.

29. Explain the construction of a Pie diagram.

30. The first 4 raw moments of a distribution are 1, 4, 10 and 46. Find the first four central moments.

31. Draw a subdivided bar diagram for the following data.

Year	Arts	Science	Law
2012	1000	1500	750
2013	1300	1400	500
2014	1650	1230	738

(6 × 4 = 24 Marks)

SECTION – D

Answer any **two** questions. **Each** carries **15** marks.

32. Find standard deviation and coefficient of variation for the following data.

Age:	0-6	6-12	12-18	18-24	24-30
No. of Patients	5	7	18	25	17

33. (a) Explain different types of classifications with examples.

(b) Define tabulation. Explain different types of tables.

34. Find Q1, Q3, D4, P20, and P99 for the following data

Mark	25	35	40	50	52	53	67	75	80
No. of students	3	29	32	41	49	54	38	29	27

35. Explain frequency polygon, and less than ogive. Construct them with the help of an example.

(2 × 15 = 30 Marks)
