



K20U 3338

Reg. No. :

Name :



I Semester B.Sc. Degree CBCSS (OBE) Reg./Sup/Imp.
Examination, November 2020
(2019 Admn. Onwards)

COMPLEMENTARY ELECTIVE COURSE IN STATISTICS
1C01STA (G & P) : Descriptive Statistics

Time : 3 Hours

Max. Marks : 40

Instruction : Use of calculators and statistical tables are **permitted**.

PART – A
(Short Answer)

Answer **all** 6 questions.

(6×1=6)

1. Define continuous data.
2. Define mode.
3. Find the geometric mean of 2, 4 and 8.
4. Define range.
5. The lower quartile and upper quartile of a set of observations are 20 and 50 respectively. Find the quartile deviation.
6. Define population.

PART – B
(Short Essay)

Answer **any** 6 questions.

(6×2=12)

7. Distinguish between primary data and secondary data.
8. Explain the construction of frequency polygon.

P.T.O.



9. What are the merits of arithmetic mean ?
10. A student's final grades in Mathematics, Physics, English and Social Studies are respectively 82, 86, 90 and 70. If the respective credits received for these courses are 3, 5, 3 and 1. Determine an appropriate average grade.
11. Find the lower quartile and upper quartile of the following numbers :
12, 5, 22, 30, 7, 36, 14, 42, 15, 53, 25
12. If the variance of an almost symmetrical distribution is 225, find the quartile deviation of the distribution.
13. Define kurtosis. Give any two measures for kurtosis.
14. Explain sampling error.

PART – C
(Essay)

Answer **any 4** questions.

(4×3=12)

15. Classify the following data in the form a grouped frequency table.

7.8	13.6	2.7	6.3	7.0	6.5	12.8	9.7	5.9	10.5
12.3	8.1	6.7	9.6	8.8	6.8	4.7	5.6	8.0	10.5
7.0	3.6	9.2	7.9	8.3	3.9	9.8	11.1	7.6	4.7
10.1	8.6	7.8	8.9	7.7	12.8	8.4	14.7	7.7	6.8
12.5	4.7	10.2	10.8	2.1	6.7	13.1	14.0	5.2	11.8
16. Find the mean and variance of first n natural numbers.
17. The first four moments of a distribution about the value 5 are 2, 20, 40 and 50. Compute skewness and kurtosis based on these values.
18. Find the coefficient of variation for the following data :
30, 44, 66, 62, 60, 34, 80, 46, 20, 38
19. Explain the advantages of sampling.
20. Explain probability sampling and judgment sampling.



PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. The following table shows the numbers of hours spent by a child on different events on a working day. Represent the data on a pie chart.

Activity	School	Sleep	Playing	Study	TV	Others
No. of Hours	6	8	2	4	1	3

22. Find the mean, median and mode of the following data.

Classes	0-20	20-40	40-60	60-80	80-100	100-120	120-140
Frequency	6	8	10	12	6	5	3

23. Find the Bowley's coefficient of skewness of the two groups given below and point out which group is more skewed.

Class	50-55	55-60	60-65	65-70	70-75	75-80
Group A	12	16	25	19	10	2
Group B	20	22	25	13	6	4

24. Explain the following sampling schemes. Give the situations where they are used.

- i) Simple random sampling
 - ii) Systematic sampling
 - iii) Stratified sampling.
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