Reg No:..... K24FY1492(C)
Name :.....

First Semester FYUGP Statistics Examination
November 2024 (2024 Admission onwards)
KU1DSCSTA121 (INTRODUCTORY STATISTICS)
(EXAM DATE : 06-12-2024)

Time : 120 min Maximum Marks : 70

Part A (Answer any 6 questions. Each carries 3 marks)

1. Explain the important characteristics that a good average should possess. 3

2. What is the median, and how is it calculated? 3

3. Calculate the missing frequencies from the following frequency distribution of 200 observations with A.M. 1.46.

x :	0	1	2	3	4	5
f :	46	–	–	25	10	5

3

4. If SD of $x_1, x_2, ..., x_n$ is k. Find the SD of $2x_1, 2x_2, ..., 2x_n$ 3

5. Explain mean deviation and its calculation. 3

6. What are central moments? Give an example. 3

7. Calculate the first raw moment for the dataset: 2, 4, 6, 8, and 10. 3

8. What do you understand by skewness? How is it measured? 3

Part B (Answer any 4 questions. Each carries 6 marks)

9. Explain the procedure of finding he combine mean of two sets of observations. The mean age of a group of 100 children was 12 years. The mean age of 40 of them was 9 years. What was the mean age for the remaining group of 60 children? 6

10. What are deciles, and how would you compute them for a given dataset in the form of grouped frequency table? 6

11. Find GM for the following data

Class:	1 – 3	4 – 6	7 – 9	10 – 12
Frequency:	8	16	15	3

6

12. Define raw moments and calculate the first three raw moments for the data:

Class:	0 – 10	10 – 20	20 -30	30 – 40	40 – 50
Freq.:	6	10	14	7	3

6

13. The first four raw moments of a distribution are 2,136,320, and 40,000. Find out coefficients of skewness and kurtosis. 6

14. Define kurtosis and explain its significance in statistical analysis. 6

Part C (Answer any 2 question(s). Each carries 14 marks)

15. (a) Discuss the importance of primary data. Why is it often preferred over secondary data? Give specific examples to support your argument. 7

(b) Define census and sampling. Compare the advantages and disadvantages of census method. 7

16. Explain the principal steps involved in conducting a sample survey. 14

17. (a) Define coefficient of variation. Given two sets observations: Set I: 48, 40, 53, 44, 57 and 49; Set II: 47, 41, 50, 46, 58, and 47. Obtain coefficient of variation for Set I and Set II. Identify more consistent set. 7

(b) The mark scored by 10 students of a class in Mathematics and Physics are listed below. In which of the subjects the students' performance is more consistent? 7

Student :	1	2	3	4	5	6	7	8	9	10
Maths :	35	37	38	43	33	35	41	45	32	40
Physics :	43	45	36	41	39	44	35	39	46	38