



Reg. No.:

Name:

University of Kerala

First Semester FYUGP Degree Examination, December 2025

Discipline Specific Core Course

STATISTICS

UK1DSCSTA102 - QUANTITATIVE DATA ANALYTICS I

Academic Level: 100-199

2024 Admission onwards

Time: 2 Hours(120 Mins)

Max. Marks: 56

Part A.6 Marks:Time 5 Minutes.(Cognitive Level :Remember(RE)/Understand(UN)) Objective Type.1 mark each,
Answer all questions

Qn No.	Question	CL	CO
1	What is NSO? Options : A)National Statistical Office B)National Survey Office C)National Service Organisation D)None of Above	RE	1
2	The word Statistics is derived from the Latin word “_____”.	RE	1
3	State TRUE or False Mean deviation is minimum when taken about median.	UN	5
4	A sample selected in such a way that every unit has an equal chance of selection is called _____ sampling.	UN	3
5	Does the coefficient of variation depends on the unit of measurement ?	UN	5
6	Which scale of measurement is synonymous with ranking ?	UN	2

Part B.10 Marks.Time:20 Minutes (Cognitive Level:Understand(UN)/Apply(AP))Two-three sentences.2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	State any two functions of CSO.	UN	1
8	Explain the interval scale with an example.	UN	2
9	Apply your knowledge of discrete frequency distribution to create a frequency table for the number of cars per family: 1, 2, 3, 1, 2, 0, 3, 2, 1, 1, 2, 3, 2, 2, 1, 0, 1, 3, 2, 1,	AP	4

Qn No.	Question	CL	CO
10	The weights (in kg) of 6 students are: 52, 48, 50, 55, 53, 47 Calculate the coefficient of variation and interpret the result.	AP	5
11	Explain graphical method for finding mode.	AP	4

Part C.16 Marks:35 Minutes.(Cognitive Level :Apply(AP)/Analyse(AN))Short Answer:4 marks each, Answer all 4 questions,choosing among options * within each question

Qn No.	Question	CL	CO
12	A) The following data indicate daily earnings(in Rs) of 40 workers in a factory. Calculate the average income per workers. OR B) A) Prepare a list of two sources of primary data and two sources of secondary data.	AP	5, 2
13	A) The following data shows the sales(in units) of different products in a store for the past month. Using a suitable bar diagram, apply your analysis to determine which product performed the best and which the worst. OR B) A) The average monthly salary of 30 employees in Department A is Rs.50,000 and the average monthly salary of 20 employees in Department B is Rs.60,000. Calculate the average monthly salary of all the 50 employees.	AP	4, 5
14	A) A cyclist pedals from his house to college at a speed of 8 k.m.p.h and back from the college to his house at 12 k.m.p.h. Find the average speed. OR B) If Karl Pearson's coefficient of skewness of a distribution is 0.32, its standard deviation is 6.5 and mean is 29.6, calculate the mode of the distribution.	AN	5, 5
15	A) A water pump fills a tank using three inlet pipes. Pipe A can fill the tank in 6 hours ,Pipe B can fill the tank in 10 hours and pipe C can fill the tank by 15 hours. If all the pipes open at the same time ,analyze the data to find the average filling time.	AN	5, 5

Qn No.	Question	CL	CO
	<p>OR B)</p> <p>Given below the arithmetic mean (AM), the mode and the standard deviation (SD) of two distributions, identify which distribution is more skewed.</p> <p>Set I: AM = 24, Mode = 20, SD = 10</p> <p>Set II: AM = 25, Mode = 23, SD = 12</p>		

Part D.24 Marks.Time: 60 Minutes.(Cognitive Level :Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer 6 Marks each.Answer all 4 questions choosing among options * within each question

Qn No.	Question	CL	CO										
16	A) Analyse the method of cluster sampling with an example. OR B) Analyse the data to determine coefficient of kurtosis	AN	3, 5										
17	A) A) A retail store is analyzing the sales volume of various products over the last quarter. The grouped frequency table below shows the number of units sold <table><tr><td>Units Sold : 0-10</td><td>10-20</td><td>20-30</td><td>30-40</td><td>40-50</td></tr><tr><td>Frequency : 5</td><td>8</td><td>12</td><td>6</td><td>4</td></tr></table> Evaluate the sales performance by identifying the modal number of units sold for a product during the quarter. OR B) A) Runs scored by two different batsmen over their last five matches: Batsman X : 90, 85, 88, 92, 95 Batsman Y: 70, 80, 65, 75, 90 Determine the coefficient of variation for the runs scored by each batsman. Evaluate which batsman demonstrates more consistent performance across the matches.	Units Sold : 0-10	10-20	20-30	30-40	40-50	Frequency : 5	8	12	6	4	EV	5, 5
Units Sold : 0-10	10-20	20-30	30-40	40-50									
Frequency : 5	8	12	6	4									
18	A) In a fitness program, the weights of participants are distributed as follows. Evaluate the distribution of weights using mean deviation about mean to determine how much participants deviate from the average weight. OR B)	EV	5, 5										

Qn No.	Question	CL	CO
	The following data shows the distribution of farm sizes selected at random. Prepare a less than ogive and evaluate the median, 4th decile and 90th percentile from it.		
19	<p>A)</p> <p>Create a grouped frequency distribution of your choice and then construct a less-than ogive.</p> <p>OR</p> <p>B)</p> <p>Construct an histogram and a frequency polygon from the histogram for the following data.</p> <p>Class : 0-15 15-30 30-45 45-60 60-75 75-90 90-105</p> <p>Frequency: 10 20 15 12 8 5 3</p>	CR	4, 4

Model QP