



Reg. No.:

Name:.....

U8400



University of Kerala
First Semester Degree Examination, November 2024
Four Year Under Graduate Programme
Discipline Specific Core Course
STATISTICS
UK1DSCSTA107- BASIC STATISTICS I
Academic Level: 100-199

Time:1½ Hours

Max.Marks:42

Part A.

Answer All Questions, Objective Type. 1 Mark Each.

(Cognitive Level: Remember/Understand) 6 Marks. Time: 6 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
1.	Give any one method to collect primary data	Understand	CO1
2.	Which organization plays a crucial role in coordinating statistical activities in India? a) Ministry of Home Affairs b) Planning Commission c) Ministry of Statistics and Programme Implementation d) NITI Aayog	Understand	CO1
3.	What is the role of state statistical departments? a) To manage central taxes b) To collect data at the state level c) To regulate trade d) To conduct international surveys	Understand	CO1
4.	Which sampling scheme is suitable for a heterogenous population	Remember	CO4
5.	Describe one method of sampling.	Understand	CO4
6.	Who benefits from the statistical data collected in India? a) Only the government b) Researchers and policymakers c) Businesses and NGOs d) All of the above	Understand	CO1

Part B.

Answer All Questions , Short Answer. 2 Marks Each.

(Cognitive Level: Understand/Apply) 8 Marks. Time: 24 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
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7.	What do you understand by stratified random sampling?	Understand	CO4
8.	What are the various methods of population census in India?	Understand	CO1
9.	What is Boxplot?	Apply	CO2
10.	What is the relation between raw moments and central moments?.	Apply	CO3

Part C.

Answer all 4 Questions, choosing among options within each question.

Long Answer. 7 marks each.

(Cognitive Level: Apply/Analyse/Evaluate/Create) 28 Marks. Time: 60 Minutes

Qn. No.	Question	Cognitive Level	Course Outcome (CO)
11.	<p>A.The first and second moments of a distribution about origin are 2 and 8 respectively. Find the variance</p> <p style="text-align: center;">OR</p> <p>B.The first four moments of a set of numbers about the number 3 are equal to -2, 10, -25 and 50. Determine the corresponding moments about the mean.</p>	Apply	CO3
12.	<p>A.Obtain D_7 and P_{95} for the data given below Class : 0-10 10-20 20-30 30-40 40-50 50-60 60-70 70-80 F : 6 9 11 14 20 15 10 15</p> <p style="text-align: center;">OR</p> <p>B.Calculate quartiles, D_5 and P_{60} graphically using the following data Class : 0-10 10-20 20-30 30-40 40-50 50-60 Frequency: 3 9 15 30 18 5</p>	Apply	CO3
13.	<p>A.Draw the frequency polygon and frequency curve for the following data Variate: 20-40 40-60 60-80 80-100 100-120 120-140 140-160 F: 6 9 11 14 20 15 15</p> <p style="text-align: center;">OR</p> <p>B.Draw the cumulative frequency curves for the following distribution and find its median Class: 0-20 20-40 40-60 60-80 80-90 90-100 Frequency: 3 10 15 18 8 6</p>	Apply	CO2
14.	<p>A.Create subdivided bar diagram for given data Year: :1972 1975 1978 1981 Direct tax :1200 2250 2500 3500 Indirect tax :2300 4100 6300 10000,</p> <p style="text-align: center;">OR</p> <p>B.Draw the histogram for the following distribution Class: 0-20 20-40 40-80 80-100 100-110 110-150 Frequency: 3 10 15 15 5 7</p>	Apply	CO2