

Reg. No.:



Name:

University of Kerala

U9346

Second Semester FYUGP Degree Examination, April 2025

Multi-Disciplinary course

STATISTICS

UK2MDCSTA102 - DATA INTERPRETATION AND QUANTITATIVE REASONING

Academic Level: 100-199

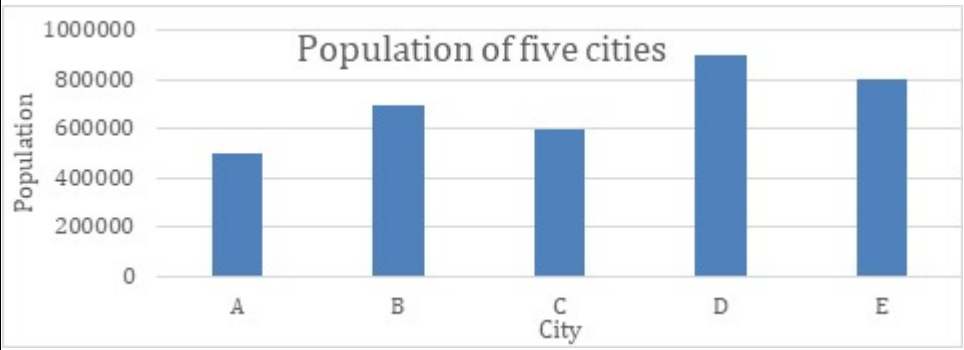
Time: 1 Hour 30 Minutes(90 Mins.)

Max. Marks: 42

Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark Each.Answer all questions

Qn No.	Question	CL	CO
1	Find the next number in the series? 2, 6, 12, 20, ?	RE	4
2	Histogram and frequency polygon are two graphical representations of: Options : A)Frequency distribution B)Class boundaries C)Class intervals D)Class marks	RE	1
3	What is the probability of drawing a red card from a deck of 52 playing cards?	UN	1
4	What is the range of values that a probability can take?	UN	1
5	Frequency polygon can be drawn with the help of ----- Options : A)Bar diagram B)Histogram C)Historigram D)Pie diagram	UN	1
6	What is the probability of rolling a number greater than 4 on a fair six-sided die?	UN	1

Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions

Qn No.	Question	CL	CO
7	<p>A bar diagram compares the population of five cities.</p>  <p>Which city has the highest population and what conclusion can you draw?</p>	UN	1

Qn No.	Question	CL	CO
8	The number of miles run in one day by 16 selected runners is given. 2, 4, 7, 3, 8, 4, 5, 7, 4, 6, 4, 3, 4, 2, 4, 10 Represent the data in a grouped frequency table.	UN	1
9	Find the mean of the data: 4, 8, 10, 12, 15.	AP	2
10	If $P(A) = 0.4$, $P(B) = 0.5$, and $P(A \cap B) = 0.2$, find $P(A \cup B)$.	AP	3

Part C. 28 Marks. Time: 60 Minutes (Cognitive Level: Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer. 7 marks each. Answer all 4 Questions choosing among options * within each question

marks each/answer all 4 Questions choosing among options within each question																									
Qn No.	Question	CL	CO																						
11	A) Construct a histogram and compare the number of students scoring below 40 with those scoring above 60. What can be inferred from the graph? <table><tr><th>Marks Range</th><th>No of students</th></tr><tr><td>0-10</td><td>4</td></tr><tr><td>10-20</td><td>6</td></tr><tr><td>20-30</td><td>10</td></tr><tr><td>30-40</td><td>15</td></tr><tr><td>40-50</td><td>20</td></tr><tr><td>50-60</td><td>18</td></tr><tr><td>60-70</td><td>12</td></tr><tr><td>70-80</td><td>8</td></tr><tr><td>80-90</td><td>5</td></tr><tr><td>90-100</td><td>0</td></tr></table>	Marks Range	No of students	0-10	4	10-20	6	20-30	10	30-40	15	40-50	20	50-60	18	60-70	12	70-80	8	80-90	5	90-100	0	AP	1, 2
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OR B) Compute the mean deviation about the mean for 3, 6, 9, 12																									
12	A) S = {red, blue, green, yellow, pink, black} A = {red, green, pink}, B = {blue, yellow, black} Find: a) $A \cup B$ b) A^c	AN	3, 4																						

Qn No.	Question	CL	CO
	<p>c) B^c</p> <p>d) $A \cap B^c$</p> <p>e) $A^c \cap B$</p> <p>OR</p> <p>B)</p> <p>Observe the following mixed sequence of numbers and letters:</p> <p>3, 8, 15, ?, 35, A, F, K, ?, U</p> <p>Analyze the pattern and answer the following questions:</p> <p>a) Find the missing number in the series.</p> <p>b) Identify the missing letter in the alphabetical sequence</p> <p>c) If the given letters are arranged in reverse alphabetical order, what will be the third letter?</p>		
13	<p>A)</p> <p>A card is drawn from a standard deck of 52 cards. Let event A be drawing a red card, and event B be drawing a face card (Jack, Queen, or King). Determine:</p> <p>a) $P(A \cup B)$</p> <p>b) $P(A \cap B)$</p> <p>OR</p> <p>B)</p> <p>In a group of 200 people:</p> <ul style="list-style-type: none"> 120 like tea 60 like coffee 40 like both <p>Find the probability that a randomly chosen person:</p> <p>a) Likes at least one of the two beverages</p> <p>b) Does not like coffee</p>	EV	3, 3
14	<p>A)</p> <p>Voters in Oregon were asked to identify the political party to which they belonged. Construct a Pie chart.</p>	CR	1, 3

Qn No.	Question		CL	CO										
	<table><tr><th>Political Affiliation</th><th>Number</th></tr><tr><td>Democrat</td><td>900</td></tr><tr><td>Republican</td><td>720</td></tr><tr><td>Libertarian</td><td>36</td></tr><tr><td>Green Party</td><td>144</td></tr></table>	Political Affiliation	Number	Democrat	900	Republican	720	Libertarian	36	Green Party	144			
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	<p>OR</p> <p>B)</p> <p>Four people — M, N, O, and P — have different amounts of money.</p> <ul style="list-style-type: none">• M has more money than P but less than O.• N has the least money.• P has more money than N. <ul style="list-style-type: none">• Arrange them in order of money from richest to poorest.• Question: Who has the second highest amount?													