

Reg. No.:



W7970

Name:

University of Kerala

First Semester FYUGP Degree Examination, December 2025

Discipline Specific Core Course

STATISTICS

UK1DSCSTA111 - DESCRIPTIVE STATISTICS WITH R

Academic Level: 100-199

2024 Admission onwards

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	Name a function in R to draw bar diagram.	RE	4
2	Define sample.	RE	1
3	A school principal wants to see which subject the 1000 students in his school liked best. Which choice best represents a sample? Options : A)The girls in the school. B)1 classroom for each grade C)The students making a B in math. D)All the students in the school	UN	1
4	Find the mode of the set of observations: 16,16,18,19,16,15,16,21,16,28,9,21	UN	5
5	Which function in R is used to create a table?	UN	4
6	Mode of a distribution can be obtained from Options : A)Histogram B)Less than ogive C)Simple bar diagram D)None of the above	UN	4

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	What do you mean by arithmetic mean?	UN	5
8	Define simple random sampling.	UN	1
9	Prepare a less than cumulative frequency distribution for the following data:	AP	2

Qn No.	Question						CL	CO
	Marks	0-10	10-20	20-30	30-40	40-60		
	Number of students	5	10	18	26	22		
10	Identify the differences between discrete and continuous data.						AP	1

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

Qn No.	Question	CL	CO																													
11	A) Write R-program to represent the following data through a multiple bar diagram on the yearly profits (in thousands of Rs.) of two companies A and B <table><tr><td>Year</td><td>2001-02</td><td>2002-03</td><td>2003-04</td><td>2004-05</td></tr><tr><td>Company A</td><td>250</td><td>275</td><td>300</td><td>330</td></tr><tr><td>Company B</td><td>150</td><td>180</td><td>225</td><td>245</td></tr></table> OR B) How will you assess the consistency of the data obtained in two samples using R programming? <table><tr><td>Sample A</td><td>23</td><td>22</td><td>26</td><td>25</td><td>22</td><td></td></tr><tr><td>Sample B</td><td>30</td><td>28</td><td>27</td><td>31</td><td>29</td><td>30</td></tr></table>	Year	2001-02	2002-03	2003-04	2004-05	Company A	250	275	300	330	Company B	150	180	225	245	Sample A	23	22	26	25	22		Sample B	30	28	27	31	29	30	AP	4, 5
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12	A) Explain scatter diagram and its benefits in a statistical analysis of data. OR B) For the observations 47, 29, 23, 36, 39,22,34,42,38,56 write R-program to obtain AM, GM and HM.	AN	3, 5																													
13	A) How would you prepare a subdivided bar diagram using R programming for the following data?	EV	4, 1																													

Qn No.	Question			CL	CO
	Commodities	Year			
		2022	2024		
	Bengal Gram (Rs/Quital)	9200	11500		
	Coconut Oil (Rs/Quital)	13900	14467		
	Rice Surekha (Rs/Quital)	4150	4700		
	Sugar (Rs/Quital)	5760	4047		
	OR				
B)					
Explain various advantages and drawbacks of SRS and stratified sampling.					
14	A)			CR	5, 1
	Write an R program to create a suitable average for the data:				
	3.55%, 3.65%, 4.80%, 4.90%, 4.80%, 4.91%, 4.91%, 5.02%, 5.09%, 5.87%				
	OR				
	B)				
	Write an R Program to create a random sample of size 10 without replacement from the data: 12, 9, 23, 11, 11, 23, 44, 56, 58, 87, 100, 29, 67, 61, 89, 21, 27, 74, 67, 89, 90				