

Reg. No.:



Name:

University of Kerala

W7578

First Semester FYUGP Degree Examination, December 2025

Discipline Specific Core Course

COMPUTER SCIENCE

UK1DSCCSC106 - Data Science Fundamentals

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	List any two charts used in visualization?	RE	4
2	List any two data preprocessing operations?	RE	2
3	Define NOIR.	UN	1
4	Specify the name of the operation that collect data from multiple sources?	UN	2
5	Illustrate the use of text functions in data cleaning	UN	3
6	Explain Gantt chart?	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	Describe diagnostic analysis.	UN	1
8	Compare Histogram and Bar Chart.	UN	4
9	Compare the features of the Gantt chart and Thermometer chart?	AP	4
10	Explain the role of SQL in Data Science.	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)	AP	2, 2

Qn No.	Question	CL	CO
	Demonstrate the process of filling missing values using appropriate imputation techniques. OR B) Explain data transformation techniques		
12	A) Analyze the pros and cons of using SQL in data science applications. OR B) Distinguish Machine Learning and Deep Learning.	AN	1, 1
13	A) Identify the different date and time functions in Excel. Write down the syntax and give an example for each OR B) Explain more about how to reduce size of data for data analysis?	EV	3, 4
14	A) Describe different types of data visualization types . Give use cases. OR B) Create a worksheet with student mark details include formula to calculate total marks , Percentage, grade(>=90 A, >=80 B, >=70 C, >=60 D, >=50 E, <50 F).	CR	4, 3