

Reg. No.:



Name:

University of Kerala

U8730

Second Semester FYUGP Degree Examination, April 2025

Discipline Specific Core Course

COMPUTER SCIENCE

UK2DSCCSC106 - Python for Data Analytics

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	State the difference between int and float datatypes in python	RE	2
2	Thefunction is helps to do missing data imputation	RE	3
3	The result of print(20+30*3) is	UN	1
4	Identify the function used to add a new column in a data frame	UN	3
5	Explain is barh ()	UN	4
6	Identify the function that can be used to get all keys from a dictionary in Python.	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	Compare reading data from a CSV file and an Excel file in Pandas.	UN	2
8	Explain about axis () function and how to set limits of axes	UN	4
9	Discuss how seaborn differ from Matplotlib.	AP	4
10	Compare between sorted() and sort().	AP	2

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) Construct a dictionary that stores student names as keys and their marks as values, then explain how to update, delete, and retrieve values. OR B) Illustrate different arithmetic operators used in python with suitable examples	AP	2, 1
12	A) Analyze the following Python code and explain what it does: import numpy as np arr = np.array([1, 2, 3, 4, 5]) arr_slice = arr[1:4] arr_slice[0] = 10 print("Original Array:", arr) print("Sliced Array:", arr_slice) Explain: 1. The purpose of arr[1:4]?2. Why does changing arr_slice[0] affect the original array arr?3. What would be the output of the print statements?4. How would you modify the code to avoid changing the original array?	AN	2, 4

Qn No.	Question	CL	CO
	OR B) Evaluate the effectiveness of different visualization approaches for categorical versus continuous data variables.		
13	A) Apply exception handling in Python to prevent program crashes and write a program demonstrating the use of try ,except and finally OR B) Demonstrate the utility of relational and logical operators in filtering data from a data frame.	EV	1, 3
14	A) Demonstrate the use of Matplotlib's subplot feature by plotting three different charts (line, bar, and scatter) in a single figure. OR B) Implement Nesting of function to find area and perimeter of a rectangle	CR	4, 1