Reg.No. | | | | | | | | |

G. VENKATASWAMY NAIDU COLLEGE (AUTONOMOUS), KOVILPATTI – 628 502.

PG DEGREE END SEMESTER EXAMINATIONS - NOVEMBER 2024.
(For those admitted in June 2022 and later)

PROGRAMME AND BRANCH: M.Sc., COMPUTER SCIENCE

SEM	CATEGORY	COMPONENT	COURSE CODE	COURSE TITLE
II	PART - III	CORE	P22CS209	DATA ANALYTICS WITH PYTHON PROGRAMMING

Date : 14.11.2024 / FN **Time : 3 hours** **Maximum: 75 Marks**

Course Outcome	Bloom's K-level	Q. No.	SECTION – A (10 X 1 = 10 Marks) Answer ALL Questions.
CO1	K1	1.	How many times will the print statement be executed ?for i in range(100): print(i) a) 101 b) 0 c) 99 d)100
CO1	K2	2.	What is a named sequence of statements that performs a computation? a) function b) branch c) coding d) loop
CO2	K1	3.	Which data structure allows to return multiple values from a function? a) List b) Dictionary c) Tuple d) All the above
CO2	K2	4.	This method allows you to add an element to the end of an array? a) append(element) b) push(element) c) add(element) d)insert(element)
CO3	K1	5.	An operation between unaligned Series will have the _____ of the indexes involved. a) intersection b) total c) union d) None
CO3	K2	6.	Choose the following option that can be a data in Pandas? a) a python dict b) an ndarray c) a scalar value d) all of the mentioned
CO4	K1	7.	which is used in Pandas to access a group of rows or columns by integers? a) dataframe.loc b) dataframe.iloc c) dataframe.intloc d) dataframe.int
CO4	K2	8.	Which makes the use of pandas and returns data in a dataFrame? a) pandaSDMX b) freedapi c) OutPy d) none of the mentioned
CO5	K1	9.	Plotting on Series and DataFrame is essentially a straightforward wrapper around _____. a) gplt.plot() b) plt.plot() c) plt.plotgraph() d) none of the mentioned
CO5	K2	10.	Which of the following values is applied for the barplot by the kind keyword? a) bar b) kde c) hexbin d) none of the mentioned
Course Outcome	**Bloom's K-level**	**Q. No.**	**SECTION – B (5 X 5 = 25 Marks) Answer ALL Questions choosing either (a) or (b)**
CO1	K2	11a.	Briefly explain branching statement in python with example. **(OR)**
CO1	K2	11b.	Describe Functions in detail.

CO2	K2	12a.	Discuss Inheritance and its types. **(OR)**
CO2	K2	12b.	Outline the Numpy aggregate functions with an example.
CO3	K3	13a.	Apply data indexing and selection on Pandas for selecting a column in excel file. **(OR)**
CO3	K3	13b.	Illustrate the role of objects on Pandas in filtering columns.
CO4	K3	14a.	Show the application of Pivot table with a case study. **(OR)**
CO4	K3	14b.	Justify experimental techniques that allow Pandas to operate at fast speeds with arrays.
CO5	K4	15a.	Analyze various ways to Plot legends in MATPLOTLIB. **(OR)**
CO5	K4	15b.	Investigate the role of color bars in Histogram.

Course Outcome	**Bloom's K-level**	**Q. No**	**SECTION – C (5 X 8 = 40 Marks)** **Answer ALL Questions choosing either (a) or (b)**
CO1	K4	16a.	Examine Looping statement with example. **(OR)**
CO1	K4	16b.	Clarify the List methods in detail.
CO2	K5	17a.	What is dictionary? List and discuss about various operations supported by a dictionary. **(OR)**
CO2	K5	17b.	Evaluate Arrays in python using various examples.
CO3	K5	18a.	Assess the role of missing data on Pandas. **(OR)**
CO3	K5	18b.	Justify Combining data set in PANDAS I.
CO4	K5	19a.	Determine vectorized String operations on PANDAS II. **(OR)**
CO4	K5	19b.	Assess the role of time series in high performance pandas.
CO5	K6	20a.	Propose list and various types of PLOT functions in MATPLOTLIB. **(OR)**
CO5	K6	20b.	Formulate three-dimensional plotting in MATPLOTLIB.