CBCS SCHEME

USN | | | | | | | | | | |

BDS306B

Third Semester B.E./B.Tech. Degree Examination, Dec.2023/Jan.2024
Python Programming for Data Science

Time: 3 hrs.

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain block structure of a python with an example.	6	L2	CO1
	b.	Explain basic data types available in python with examples.	6	L2	CO1
	c.	Explain simple Input/Output print statements in python.	8	L4	CO1
		OR			
Q.2	a.	What are the rules for declaring the variable in python?	6	L1	CO1
	b.	Describe the elements of python language.	6	L2	CO1
	c.	Illustrate formatting print statement in python.	8	L2	CO1
		Module – 2			
Q.3	a.	Explain conditional statements in python.	6	L2	CO2
	b.	Describe python built-in functions.	6	L1	CO2
	c.	Explain python looping statement using python code.	8	L2	CO2
		OR			
Q.4	a.	Explain append ( ) and index ( ) functions with respect to lists in python.	6	L2	CO2
	b.	Write python code to determine whether the given number is palindrome or not.	6	L1	CO2
	c.	Explain jump and continue statement using python code snippet.	8	L2	CO2
		Module – 3			
Q.5	a.	Discuss the relation between tuples and list, tuples and dictionaries in detail.	8	L2	CO2
	b.	Discuss zip ( ) function with an example.	6	L2	CO3
	c.	Explain creating, indexing and slicing with respect to list.	6	L2	CO3
		OR			
Q.6	a.	Illustrate looping over dictionary using python code.	8	L2	CO3
	b.	Explain different ways to delete an element from a list with suitable python code.	6	L2	CO3
	c.	Tuples are immutable. Explain with python code.	6	L2	CO3
		Module – 4			
Q.7	a.	Explain array manipulation using Numpy library.	6	L2	CO4
	b.	What are the operations carried out between data structure using python code?	6	L1	CO4
	c.	Compute mean, mode, standard deviation, variance of a given number (1, 5, 2, 8, 9) using Numpy library.	8	L3	CO4

		OR			
Q.8	a.	Explain concept of indexing, slicing and iterating using Numpy library.	6	L2	CO4
	b.	Explain reading and writing array data on files using Numpy library.	6	L2	CO4
	c.	Develop python program to read Numpy array and print row (sum, mean, column, deviation, standard deviation).	8	L3	CO4
		Module – 5			
Q.9	a.	Illustrate aggregation group of iteration in python.	6	L2	CO5
	b.	Develop a python code to read and print in the console CSV file.	6	L2	CO5
	c.	Explain python string handling methods with example : join ( ), startswith ( ), rjust( ), strip ( ).	8	L2	CO5
		OR			
Q.10	a.	How to read data in CSV and textual files, explain with an example?	6	L1	CO5
	b.	Briefly explain reading and writing html file.	6	L2	CO5
	c.	Develop a python code to read xml file with basic tags.	8	L3	CO5

* * * * *