

Semester: May – June 24			
Maximum Marks: 50	Examination: ETE Exam	Date:	Duration: 2.5 Hrs
Programme code: Programme: MBA WE Batch 2 Div 1&2	Class: FY	Semester/Trimester: 1	
College: K. J. Somaiya Institute of Management	Name of the department/Section/Center: DST		
Course Code:	Name of the Course: Data Science using Python		
Instructions: 1. Question number 1 is compulsory 2. Solve any 4 questions from Q2 to Q6. 3. Do not mix sub-questions.			

Question No.		Max. Marks
Q1	a) What is Data Science? Why Python is important for data science.	5 M
	b) Explain any five String functions with examples.	5 M
Q2	What will be the output of the following code <pre>list = ['hey', 235, 3.56, 'book', 200] a) print("Item at position 3= ", list[3]) list[3] = 890 b) print("Item at position 3= ", list[3]) del list[4] c) print(list) list.append(45) d) print(list) e) print(list.index(200))</pre>	5 X 2 M = 10 M
Q3	a) How will you create a dictionary in Python with a suitable example and demonstrate any three methods of dictionary?	5 M
	b) Explain different data types and operators in Python.	5 M
Q4	What is a tuple in Python? List and explain any four built-in tuple functions in Python with suitable examples.	10 M

Q5	a) How to create data frame using a list and dictionary with suitable examples. b) List the different plots available in Matplotlib and explain which plot is suitable to describe which type of data.	5 M 5 M
Q6	What is NumPy? How it is different from other data types? How to create NumPy 1 and 2-dimensional array with example.	10 M