U.S.N.										

B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

February / March 2023 Semester End Main Examinations

Programme: B.E. **Semester: V**
Branch: Mechanical Engineering **Duration: 3 hrs.**
Course Code: 20ME5DEPYP **Max Marks: 100**
Course: Python Programming **Date: 09.03.2023**

Instructions: 1. Answer any FIVE full questions, choosing one full question from each unit.
2. Missing data, if any, may suitably be assumed.

Important Note: Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.

UNIT - I

1 a) Illustrate with an example program all different types of data types available in python. **10**

b) Define Set & Illustrate with an example how you add and access the items defined in set. **10**

OR

2 a) Define Tuple & explain the following with a suitable example each:- **10**
- i. Create a Tuple
- ii. Find length of a Tuple
- iii. Convert the type to list and change the values

b) Define variable and discuss with a syntax how to create and print a variable called "**HELLO**" that contains and assigned value "**BMS College**". **05**

c) Define List and discuss its advantage with a suitable example. **05**

UNIT - II

3 a) With an example explain the following:- **10**
- i. Write the content to an Existing File
- ii. To check if file exists & then delete it

b) Write a program in python to compute all three roots of quadratic equation **10**

UNIT - III

4 a) Define string and explain the following string methods with an example program:- **10**
- i. Slicing
- ii. Concatenation
- iii. String format

b) What is regular expression? List and explain the function of regx with an example program to find the word from the given string. **10**

UNIT - IV

5	a)	Write a python function to read three numbers and find the largest among them.	**10**
	b)	Define polymorphism and explain the concept of polymorphism with a suitable example.	**10**

OR

6	a)	Illustrate with an example pseudocode how objects can be treated as a functions in python	**10**
	b)	Write a recursive code in python to find Fibonacci series	**10**

UNIT - V

7	a)	What is Pandas and explain its uses along with a sample code to how to load a CSV file in a data frame.	**10**
	b)	With an example pseudocode explain how to create a scatter plot in python	**05**
	c)	Discuss the use of Numpy and write a program to sort an array using Numpy Library.	**05**

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