

Roll No.

3033

**B. Tech. 3rd Semester (CSE)
Examination – March, 2021**

PYTHON PROGRAMMING

Paper : PCC-CSE-207-G

Time : Three Hours]

[Maximum Marks : 75

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is *compulsory*. All questions carry equal marks.

1. Write a short note on : 15
- (a) Arithmetic operators and expressions in python.
 - (b) List the rules to declare a variable in python. Demonstrate atleast three different types of variable uses with an example program.
 - (c) How python handles the exception ? Explain with the help of example.

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- (d) What are lists ?
- (e) How tuples are created in python ? Explain how to access the tuple with the help of example ?
- (f) What are polymorphic functions ?

UNIT – I

- 2. (a) Write a python program to list all the factorial numbers less than or equal to an input number n. 7.5
- (b) Write a python code to check whether the given number is a strong number. Strong numbers are numbers whose factorial of digits is equal to the original number. 7.5
- 3. (a) Give the python code to find the minimum among the list of 10 numbers. 7.5
- (b) How to create a list in python ? Illustrate the use of negative indexing of list with example. 7.5

UNIT – II

- 4. (a) Write the python code to display the last six characters of the string "The breakfast is ready" to the console. 5
- (b) Explain string slicing in python. Show with example. 5

- (c) How to read/write text and numbers from the file in Python ? 5
5. (a) Write a python program to accept the sentence from the user and display the longest word of that sentence along with its length. 7.5
- (b) Write a python program that reads a text file and changes the file by capitalizing each character of file. 7.5

UNIT – III

6. Describe the following : $7.5 \times 2 = 15$
- (a) Write a python program to search a specific value from a given list of values using binary search method.
- (b) Explain recursive function with the help of example.
7. (a) Explain basic list operators used in python. 7.5
- (b) Explain Dictionary in Python with the help of example. How it is different from List ? 7.5

UNIT – IV

8. (a) What are the differences between abstract class and interface ? Write a python program in which Maruti and Santro sub classes implement the abstract methods of the super class Car. 7.5

- (b) Explain the types of methods available in python with a suitable example of each method. 7.5

9. Explain the following : 15

- (a) Write a Python program to overload + operator.
 - (b) How operator overloading can be implemented in Python ? Give an example.
 - (c) Define Inheritance & Polymorphism with the help of example.
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