



R18 Regulation

Subject code: 2P4EC

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY
(Autonomous, Accredited by NAAC with 'A' Grade)

B.Tech IV Semester Supplementary Examinations, July 2022
PYTHON PROGRAMMING

(CSE)

Maximum Marks: 70

Date:26.07.2022 Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 20 marks. Answer all questions in Part A.
 3. Part B consists of 5 Units. Answer any one full question from each unit.
 4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks

(10x2M=20 Marks)

- 1 List python standard/built-in data types
- 2 What is interactive mode in python
- 3 Write a python program to print the following pattern
1
2 3
4 5 6
7 8 9 10
- 4 What is floor division or truncating division? Give example.
- 5 Distinguish between parameter and argument
- 6 List the properties of dictionary in python.
- 7 Define package. How to import a package in python program.
- 8 Solve the following linear equations using scipy library module
 $X+3y+5z=10$
 $2x+5y+z=8$
 $2x+3y+8z=3$
- 9 Write about data abstraction in python with example program
- 10 Write a python class which has two methods `get_String` and `print_String`. `get_String` accepts a string from the user and `print_String` print the string in uppercase.

Part-B

Answer All the following questions.

(10M X 5=50Marks)

- 11 a) Explain how Python is different from C/C++/Java
b) Write about input/output statements in python with suitable examples. [5+5]
- OR
- 12 a) Write a python program to convert given decimal number into binary, octal and hexadecimal
b) What is an Identifier? Mention the rules to define an identifier. [5+5]

- 13 a) Explain about control transfer statements in python with suitable examples
b) Write a Python program to check the validity of password input by users.
Validation :
- At least 1 letter between [a-z] and 1 letter between [A-Z].
 - At least 1 number between [0-9].
 - At least 1 character from [!#\$%&@].
 - Minimum length 6 characters.
 - Maximum length 16 characters. [5+5]
- OR
- 14 a) Write about membership & identity operators in python with suitable examples.
b) Explain conditional statement if, ifelse, for and while. [5+5]
- 15 a) List the string testing methods with examples
b) Discuss about scope of the variables in python functions.[5+5]
- OR
- 16 a) Write a python function to create and print a list where the values are square of numbers between 1 and 30 (both included)
b) Explain about anonymous functions and fruitful functions in python with example programs. [5+5]
- 17 a) Write a python program to append data to an existing file and then displaying the entire file.
b) Explain the process of creating and importing a module. [5+5]
- OR
- 18 a) Write a python program to find the determinant for a 2*2 matrix using scipy library module
b) Discuss the different modes for opening a file and closing a file [5 + 5]
- 19 a) How to declare a constructor method in Python? Explain with an example.
b) Explain the features of Inheritance in python with appropriate examples. [5+5]
- OR
- 20 a) How to handle exception in python explain in detail with suitable examples
b) Write a python program using classes and objects to simulate result preparation system for 20 students. The data available for each student includes: Name, Rollno. and Marks in 3 subjects and also calculate percentage and grades for each student. [5 + 5]