



R20 Regulation

Subject code: 305DA

# TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech V Semester Supplementary Examinations, November 2025

## PYTHON PROGRAMMING

(ECE)

Maximum Marks: 70

Date: 20.11.2025

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)		Marks	CO	BTL
1	Write about various Data Types in Python.	2M	1	L1
2	Write Bitwise Operators with example.	2M	1	L1
3	Define Break function.	2M	2	L1
4	Write Syntax for 'FOR' loop and give one example.	2M	2	L1
5	List some characteristics of arrays.	2M	3	L1
6	Write the immutability aspect of tuples.	2M	3	L1
7	Name a built-in function used to find the length of a string with example	2M	4	L1
8	Write the the role of a return statement in a function.	2M	4	L1
9	What are the uses of File object?	2M	5	L1
10	Name a Pandas function used to read a file.	2M	5	L1

### Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
11	Explain different Data types in python with an example.	10M	1	L2
OR				
12	List different operators in python, in the order of their precedence.	10M	1	L2
13	What are the different loop control statements available in python? Explain with suitable examples.	10M	2	L2
OR				
14	Write about conditional statements and explain briefly with an example.	10M	2	L2
15	Define List. Explain pop (), copy (), sort () in list with an example.	10M	3	L2
OR				
16	a. Differentiate between lists and tuples. b. Describe the concept of indexing in arrays with an example.	5M 5M	3	L2
17	a. Describe the role of slicing in string manipulations. b. Develop a program that checks if a given string is a palindrome.	5M 5M	4	L2

	OR			
18	a. Create a function that counts the occurrences of a specific character in a given string. b. Show how to use a recursive function to calculate the Fibonacci sequence.	5M 5M	4	L2
19	Examine the efficiency of various methods to merge or concatenate Pandas Data Frames.	10M	5	L2
	OR			
20	Develop a program that uses NumPy to perform element-wise operations on two arrays.	10M	5	L2