



R20 Regulation

Subject code: 306AE

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech VI Semester Supplementary Examinations, November 2025

PYTHON PROGRAMMING

(CE)

Maximum Marks: 70

Date: 17.11.2025

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	What is the purpose of a Python virtual environment?	2M	1	L1
2	How many keywords does Python have?	2M	1	L1
3	Write the syntax for nested for loops and nested while loop statements.	2M	2	L1
4	Define if...else statements in python.	2M	2	L1
5	What keyword is used to define a function in Python?	2M	3	L1
6	How do you execute or call a function in Python?	2M	3	L1
7	How to open a new file in Python?	2M	4	L1
8	What is meant by module in python?	2M	4	L1
9	What is a class in Python?	2M	5	L1
10	What purpose does the self-keyword serve in Python class methods?	2M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)

		Marks	CO	BTL
11	List and explain any four prominent features of Python, providing an example for each.	10M	1	L2
OR				
12	Explain the data types in python with suitable examples.	10M	1	L2
13	Explain the logical operators 'and', 'or', and 'not' with truth tables and illustrate their usage in Python expressions.	10M	2	L2
OR				
14	Discuss the difference between the '==' operator and the 'is' operator in Python with suitable examples.	10M	2	L2
15	Explain the significance of defining functions in programming and how they promote code reusability.	10M	3	L2
OR				
16	Demonstrates operations (e.g., adding, removing, accessing elements) on a list, tuple, dictionary, and set with suitable examples.	10M	3	L2

17	Explain the role of the import statement in Python and how it facilitates namespace management.	10M	4	L2
	OR			
18	Describe the primary functionalities of the NumPy package in Python and its importance in numerical computing.	10M	4	L2
19	Discuss the significance of the self-variable in Python classes and its usage within class methods.	10M	5	L2
	OR			
20	Distinguish between Errors and Exceptions.	10M	5	L2