



R22 Regulation

Subject code: 4E3EB

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech III Semester Regular/Supplementary Examinations, December 2025

PYTHON PROGRAMMING

(Common to CSE, CSE(DS) & CSE(AI&ML))

Maximum Marks: 60

Date: 19.12.2025

Duration: 3 hours

- Note:
1. This question paper contains two parts A and B.
 2. Part A is compulsory which carries 10 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 (10X1M=10 Marks)		Marks	CO	BTL
1.a)	State few applications of Python.	1M	1	1
b)	Write about indentation rules in Python.	1M	1	2
c)	Write the membership Operators.	1M	2	1
d)	What is pass command?	1M	2	1
e)	Distinguish between local and global variables.	1M	3	2
f)	What is comprehension?	1M	3	1
g)	Discuss about the file object.	1M	4	1
h)	What is the difference between a module and a package?	1M	4	2
i)	What is the purpose of the self variable in Python classes?	1M	5	2
j)	What is the difference between an error and an exception in Python?	1M	5	2

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	a) Explain the need for learning Python programming and its importance. b) Write a Python program that prints multiplication table of a given number.	5M 5M	1	2
OR				
3	a) Discuss various data types supported by Python with examples. b) Construct a Python code to check if a given year is a leap year or not.	5M 5M	1	1
4	a) Discuss on Arithmetic Operators, Comparison Operators, and Bitwise Operators with examples. b) Write a Python program to print all prime numbers less than 256.	5M 5M	2	2
OR				
5	a) Explain conditional statements in Python with examples. b) Write Python Program to Calculate Area and Perimeter of different Shapes using Polymorphism.	5M 5M	2	3

6	a) Describe lambda functions with suitable examples. How do they differ from normal functions? b) What are anonymous functions? Discuss their advantages and limitations with examples.	5M 5M	3	3
	OR			
7	a) Write a Python code to create a List and demonstrate various operations on it. b) Demonstrate differences between dictionaries and sets with examples.	5M 5M	3	3
8	a) Explain input and output methods of files. b) Write a program to append the contents of one file to another file.	5M 5M	4	3
	OR			
9	a) Explain different ways to import a module in Python and demonstrate with examples. b) What is a package? Discuss about usage of different packages.	5M 5M	4	3
10	a) Describe inheritance in Python. Explain types of inheritance (single, multilevel, multiple) with code examples. b) Explain the concept of data hiding in Python. How does Python implement private and protected attributes? Give example.	5M 5M	5	3
	OR			
11	Define an Exception. Explain various types of Exceptions. Explain in detail how do you handle?	10M	5	3