R22 Regulation *Subject code:4E3EB*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

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

B.Tech III Semester Supplementary Examinations, June 2026

PYTHON PROGRAMMING

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

Maximum Marks: 60 Date:16.06.2026 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)	Why variable type declaration are not used in Python?	1M	1	2
b)	State few keywords in Python.	1M	1	1
c)	Discuss on identity operator.	1M	2	1
d)	Discuss on order of evaluation of operators.	1M	2	1
e)	Write about scope of a variable in a function.	1M	3	2
f)	Define comprehension.	1M	3	1
g)	Differentiate text file and binary file.	1M	4	2
h)	How do you import only a specific function from a module?	1M	4	2
i)	What is the difference between a class variable and an instance variable?	1M	5	2
j)	What are user-defined exceptions in Python?	1M	5	1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	BTL
2	Briefly discuss the need of Python programming with justification.	10M	1	2
	OR			
3	Explain various data types supported by Python with examples.	10M	1	1
4	Discuss on any five types of operators with examples.	10M	2	2
	OR			
5	a) Explain loop structures in Python with examples. b) Demonstrate the difference between break, continue and pass commands.	5M 5M	2	3
6	a) How to declare and call functions in Python programs? Illustrate with an example script. b) Write a function that accepts a dictionary of student names and marks and returns highest scorer.	5M 5M	3	3
	OR			
7	a) Write a Python program to find repeated items in a Tuple. b) Write a Python program to demonstrate various operations on dictionaries.	5M 5M	3	3

8	a) Explain built-in file functions and methods with syntax and usage. b) Write a Python program to read a text file, count the number of words, characters, lines and display the results.	5M 5M	4	3
	OR			
9	Describe how to create a user-defined module in Python. Write a program that: a) defines a module named calculator b) contains functions for add, subtract, multiply, divide c) imports and uses it in another Python file	10M	4	3
10	a) Explain the concept of classes and objects in Python with an example showing both attributes and methods. b) What is method overriding? Write a program demonstrating method overriding in a subclass.	5M 5M	5	3
	OR			
11	Discuss the complete workflow of exception handling in Python. Describe how a try–except block works, the role of multiple except clauses, and the purpose of the else and finally blocks. Provide a real-world example demonstrating all components.	10M	5	3