Register No : _____

THE KAVERY ENGINEERING COLLEGE

(An Autonomous Institution)

UG/PG DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026

First Semester

Common to all Branches

GE3151 / UPST24105 – PROBLEM SOLVING AND PYTHON PROGRAMMING

Regulations – 2021 & 2024

Duration : 3 Hrs *Maximum : 100 Marks*

*PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)*

Q.No	*Questions*	*BTL*	*CO*	*Marks*
1.	Write an algorithm to find minimum of 3 numbers in a list.	L2	1	2
2.	Give the differences between recursion and iteration.	L2	1	2
3.	Define a variable and write down the rules for naming a variable.	L2	2	2
4.	What is the difference between an interpreter and an interactive mode in Python?	L2	2	2
5.	Differentiate break and continue statements in python.	L2	3	2
6.	How a string can be sliced in python?	L2	3	2
7.	What is the purpose of dictionary in Python?	L1	4	2
8.	Define the tuple assignment with an example.	L1	4	2
9.	How do you read data from a file in Python?	L1	5	2
10.	What are packages in Python?	L1	5	2

*PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)*

Q.No			*Questions*	*BLT*	*CO*	*Marks*
11.	a	i	Write an algorithm and draw the flowchart to accept three distinct numbers, find the greatest, and print the result.	L2	1	8
		ii	Explain the different building blocks of algorithms with their notations.	L2	1	8
			Or			
	b		State the Tower of Hanoi problem. Find the solution to the Tower of Hanoi problem with relevant diagrams.	L2	1	16
12.	a		Illustrate the different data types supported by Python with an example.	L3	2	16
			Or			
	b		Write a Python program to swap two variables using and without using a temporary variable.	L3	2	16
13.	a		Discuss the conditional branching statements in Python with an example.	L2	3	16
			Or			
	b		Write a Python code to perform Linear and Binary Search. Explain it with an example.	L2	3	16

14.	a	Define Python lists. How to add elements to the lists? Illustrate the operations and functionality of a list with a suitable example.	L3	4	16
		Or			
	b	Write a Python program for retail bill preparation using dictionary operations.	L3	4	16
15.	a	Explain in detail about Python Files, its types, functions and operations that can be performed on files with examples.	L2	5	16
		Or			
	b	Explain the exception handling in Python with examples.	L2	5	16