SHAMBHUNATH INSTITUTE OF ENGINEERING AND TECHNOLOGY

Subject Code: BCC302
Course: B. Tech.

Subject: Python Programming
SEMESTER: III

FIRST SESSIONAL EXAMINATION, EVEN-SEMESTER, (2023-2024)

Branch: Computer Science & Engineering

Time –1hr 30minutes

Maximum Marks –30

1. Attempt any five questions.

Q N	QUESTION	Marks	CO	BL
a.	Define the programming cycle for Python.	2	CO1	L1
b.	Explain Arithmetic Operators with Addition, Subtraction, Multiplication and Power.	2	CO1	L1
c.	What do you mean by Python IDE? Explain in detail.	2	CO1	L2
d.	Discuss why python is interpreted language.	2	CO1	L1
e.	Difference between the append() and extend() method of a List.	2	CO1	L1
f.	Compare list and dictionary data structure.	2	CO1	L3

2. Attempt any *one* of the following.

Q N	QUESTION	Marks	CO	BL
a.	Write and explain an algorithm through python code to generate prime numbers.	5	CO1	L2
b.	Discuss the purpose of the pass, break and continue statement in loops with examples.	5	CO1	L4
c.	Write a program to calculate the sum of all numbers from 1 to a given number.	5	CO1	L4

3. Attempt any five questions.

Q N	QUESTION	Marks	CO	BL
a.	What is the use of dictionary in Python?	2	CO2	L1
b.	What are logical operators and bitwise operators in python?	2	CO2	L3
c.	Write a program to print first 10 natural numbers using while loop.	2	CO2	L1

d.	What will be the output of the following Python code?
	     i = 0
	while i< 5:
	print(i)
	i += 1
	else:
	print(0)
		2	CO2	L3

e.	What is the difference between Python module and Python package?	2	CO2	L1
f.	What will be the output of the following Python code? def cube(x): return x * x * x x = cube(3) print x	2	CO2	L2

4. Attempt any one of the following.

a.	Write a program to display the Fibonacci sequence in Python.	5	CO2	L4
b.	Discuss list data structure of python. Explain various inbuilt methods of list with suitable example of each.	5	CO2	L5
c.	Write a python program to count the vowels present in given input string. Explain the output of program through example.	5	CO2	L4