

First Semester B.E/B.Tech. Degree Examination, June/July 2025

Introduction to Python Programming

BPLCK105B

Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.

2. M: Marks, L: Bloom's level, C: Course outcomes.

3. Write the output for programs wherever necessary.

Module – 1					M	L	C
1	a.	List and explain Arithmetic operators in python, with suitable examples.	8	L1	CO1		
	b.	With syntax and flowchart, explain if, if-else and elif control structures.	6	L1	CO1		
	c.	Develop a python program to find factorial of a number and display.	6	L2	CO1		
OR							
2	a.	Explain different ways of formatted output in python with an example program.	6	L2	CO1		
	b.	Discuss for and while loop in python with syntax. Write a program to even numbers up to 200 using for loop and range() function.	8	L2	CO1		
	c.	Develop a program to read the name and year of birth of a person. Print whether the person is senior citizen or not.	6	L1	CO1		
Module – 2							
3	a.	Discuss the use of following list methods for the given list a = [10, 20, 'hello', 35.6, 20] i) Index ii) Count iii) Append iv) Insert v) Remove	10	L2	CO2		
	b.	What are the properties of a dictionary? Create a dictionary to represent employee details and explain the concept of keys and values.	6	L1	CO2		
	c.	Distinguish between lists and tuples. Show how to create a tuple in python.	4	L1	CO2		
OR							
4	a.	Define list. Consider the given list L= [50, 'VTU', 100, 50, 'python'] Write the output after each of the following is executed on the original list i) L.index(50) ii) L.remove(100) iii) L.append(70) iv) L.pop(1) v) L.pop()	10	L2	CO2		
	b.	What is a Dictionary? Explain the following dictionary methods considering student details as a dictionary. Write the output i) Keys() ii) Values() iii) Items() iv) get() v) update()	10	L2	CO2		

Module – 3							
5	a.	Consider a string msg= "Hello and welcome123" write the output for each of the following : i) msg [6:12] ii) msg [-10:] iii) msg [:10] iv) msg. split () v) msg. upper ()	10	L2	CO3		
	b.	Develop a program to print 10 most frequently used words in a text file.	10	L3	CO3		
OR							
6	a.	Write a program to accept a string from keyboard, count the number of vowels and consonants and display each count.	8	L2	CO3		
	b.	What is a file path? Discuss absolute and relative file path with an example directory structure.	8	L2	CO3		
	c.	Discuss the use of 'shelve' module with a simple program.	4	L1	CO3		
Module – 4							
7	a.	Discuss the use of 'Shutil' module for copying files and folders with an example.	6	L2	CO3		
	b.	Develop a program to back up a given folder into a ZIP file using suitable modules.	8	L3	CO3		
	c.	What is Exception Handling? Write a note on raising exceptions in python.	6	L2	CO3		
OR							
8	a.	With a code Snippet, explain how the following operations are done using 'Shutil' module. i) Copying files and folders ii) Moving and renaming files and folders	10	L3	CO3		
	b.	Discuss briefly how assertions and logging is useful. Also, list the logging levels in python.	10	L3	CO3		
Module – 5							
9	a.	What is a Class? How to define a class in python? Distinguish between class attributes and instance (object) attributes with an example.	8	L2	CO4		
	b.	Differentiate between Pure Function and Modifiers. Illustrate with python programs.	8	L2	CO4		
	c.	Explain with example: i) Copy. Copy () ii) Copy. Deep copy ()	4	L2	CO4		
10	a.	Write a program to implement the object diagram and its functionality shown in Fig. 10 (a). Initialize the attributes and print the same	10	L3	CO4		
	b.	Explain the following with a program : i) The init method (__init__) ii) The str method (__Str__)	10	L3	CO4		

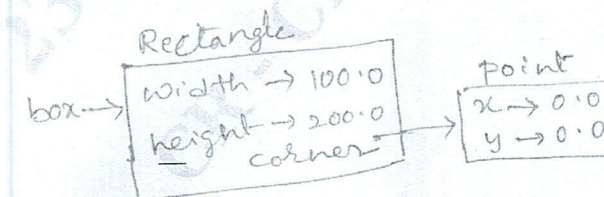


Fig. Q 10 (a)