

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BSc DEGREE EXAMINATION MAY 2025
(Fourth Semester)
Branch – **COMPUTER TECHNOLOGY**

PYTHON PROGRAMMING

Time: Three Hours

Maximum: 75 Marks

SECTION-A (10 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks

(10 × 1 = 10)

Module No.	Question No.	Question	K Level	CO
1	1	Which of the following is a valid variable name in Python? a) 2variable b) _variable c) variable@1 d) #variable	K1	CO1
	2	What will be the result of the following expression in Python: 7 + 4 * 3? a) 33 b) 21 c) 25 d) 19	K2	CO1
2	3	How can you access the element 3 from the following list? my_list = [1, [2, 3, 4], 5] a) my_list[2][1] b) my_list[1][2] c) my_list[1][1] d) my_list[3]	K1	CO2
	4	How do you create a tuple in Python? a) tuple = [1, 2, 3] b) tuple = (1, 2, 3) c) tuple = {1, 2, 3} d) tuple = <1, 2, 3>	K2	CO2
3	5	What is the correct syntax to define a class in Python? a) class MyClass: b) def MyClass: c) class MyClass(): d) class MyClass[]:	K1	CO3
	6	_____ functions can be used to check if an attribute exists in an object? a) hasattr() b) getattr() c) setattr() d) delattr()	K2	CO3
4	7	_____ is the syntax to inherit a class in Python. a) class ChildClass from ParentClass: b) class ChildClass inherits ParentClass: c) class ChildClass(ParentClass): d) class ChildClass : ParentClass	K1	CO4
	8	How can you overload the == operator in a custom class? a) By defining __eq__ method. b) By defining __equal__ method. c) By defining __comparison__ method. d) By defining __equals__ method	K2	CO4
5	9	What does file handling in Python allow you to do? a) It allows you to read from and write to files on your system. b) It only allows you to write data to files. c) It helps in creating files but not opening them. d) It is used only for text files, not binary files.	K1	CO5
	10	What is the primary purpose of exception handling in Python? a) To prevent syntax errors b) To allow the program to continue after an error occurs c) To stop the program execution when an error occurs d) To handle runtime errors and continue program execution	K2	CO5

Cont...

SECTION - B (35 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 × 7 = 35)

Module No.	Question No.	Question	K Level	CO
1	11.a.	Determine the standard datatypes supported in Python give an example.	K3	CO1
	(OR)			
	11.b.	Interpret the concept of local and global scope of variable give an example.		
2	12.a.	Examine the built-in string methods and function with an example.	K3	CO2
	(OR)			
	12.b.	Write a Python program to get the smallest number from a list.		
3	13.a.	Distinguish between public and private data members in a class.Give an example.	K4	CO3
	(OR)			
	13.b.	Write a Python program to sum all the items in a dictionary.		
4	14.a.	Compare inheritance with composition.	K4	CO4
	(OR)			
	14.b.	Explain the concept of operator overloading with an example in Python.		
5	15.a.	Summarize the different types of files in Python. Provide an example for each.	K5	CO5
	(OR)			
	15.b.	Construct how to handle the multiple exception in single block ?		

SECTION - C (30 Marks)

Answer ANY THREE questions

ALL questions carry EQUAL Marks

(3 × 10 = 30)

Module No.	Question No.	Question	K Level	CO
1	16	Analyze the various conditional statements with an example.	K4	CO1
2	17	Examine how the string immutability affects string operations in Python. Illustrate with examples of concatenating, appending, and multiplying strings.	K4	CO2
3	18	Summarize the class attributes and how can you check, set, and delete them dynamically in Python? Provide an example.	K5	CO3
4	19	Categorize the various types of Inheritance used in Python. Give an example.	K4	CO4
5	20	Point out how to write a data to a file and handle exception in Python? Give an example.	K5	CO5