

PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
BCA DEGREE EXAMINATION MAY 2026
(Fourth Semester)

Branch – COMPUTER APPLICATION

PYTHON FOR COMPUTER APPLICATIONS

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	A step-by-step procedure to solve a problem is called a ____ a) Program b) Algorithm c) Flowchart d) Syntax	K1	CO1
	2	The function used to take input from the user in Python is ____ a) read() b) scan() c) input() d) get()	K2	CO1
2	3	Which loop is generally preferred when the number of iterations is known? a) while loop b) for loop c) do-while loop d) infinite loop	K1	CO2
	4	A list in Python is enclosed within ____ a) {} b) [] c) () d) ""	K2	CO2
3	5	A group of statements that perform a specific task and can be reused is called a ____ a) Module b) Function c) Class d) Package	K1	CO3
	6	A variable declared outside all functions can be accessed anywhere in the program as a ____ Variable. a) Local b) Global c) Static d) Temporary	K2	CO3
4	7	Turtle graphics in Python are mainly used for ____ a) File handling b) Database management c) Visual drawing and graphics d) Exception handling	K1	CO4
	8	Transaction control in databases is handled using ____ a) COMMIT and ROLLBACK b) CREATE and DROP c) INSERT and UPDATE d) START and STOP	K2	CO4
5	9	The method used to retrieve all the keys from a dictionary is ____ a) dict.keys() b) dict.get() c) dict.items() d) dict.values()	K1	CO5
	10	Which package in Python is primarily used for numerical computing? a) matplotlib b) numpy c) pandas d) tkinter	K2	CO5

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.	Differentiate computer hardware and computer software with examples.	K2	CO1
		(OR)		

Cont...

	11.b.	Discuss the different data types in Python with suitable examples.		
2	12.a.	Describe the role of indentation in Python. Why is it important in control structures?	K2	CO2
	(OR)			
	12.b.	Explain the working of the while loop with examples. Compare it with the for loop.		
3	13.a.	Apply the syntax of defining functions in Python by writing a program. Explain how the function works with an example.	K3	CO3
	(OR)			
	13.b.	Define recursion. Write a recursive function to compute the factorial of a number.		
4	14.a.	Develop the concept of opening and reading from a text file with example.	K3	CO4
	(OR)			
	14.b.	Examine exception handling is implemented with example.		
5	15.a.	Illustrate the concept of polymorphism in Python with example.	K3	CO5
	(OR)			
	15.b.	Construct a Python program using matplotlib to draw a bar chart for the marks of 5 students.		

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	Classify the concept of operators with example.	K3	CO1
2	17	Discuss selection control structures in Python. Illustrate with examples of if, if-else, and if-elif-else.	K3	CO2
3	18	What is variable scope? Explain with examples the difference between local scope, global scope, and scope within functions.	K2	CO3
4	19	Construct Python program to create a database table named <i>Student</i> with fields (<i>id</i> , <i>name</i> , <i>age</i> , <i>grade</i>). Demonstrate INSERT, UPDATE, DELETE, and READ operations.	K3	CO4
5	20	Explain the dictionary data type in Python. Write a Python program to demonstrate creating a dictionary, updating a value, adding a new key-value pair, and deleting an element.	K4	CO5

Z-Z-Z END