

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc(SS) DEGREE EXAMINATION MAY 2025  
(Sixth Semester)

Branch – SOFTWARE SYSTEMS (Five Year Integrated)

**PROGRAMMING IN PYTHON**

Time: Three Hours

Maximum: 50 Marks

**SECTION-A (5 Marks)**

Answer ALL questions

ALL questions carry EQUAL marks (5 x 1 = 5)

1. Which of the following control structures allows a program to execute certain code multiple times?  
(i) Sequence (ii) Selection  
(iii) Iteration (iv) Function
2. How do you add an element to a Python list?  
(i) list.add() (ii) list.insert()  
(iii) list.push() (iv) list.append()
3. What are the methods which begin and end with two underscore characters called?  
(i) Special methods (ii) In-built methods  
(iii) User-defined methods (iv) Additional methods
4. Which module in Python is used for working with regular expressions?  
(i) string (ii) regex  
(iii) re (iv) pattern
5. The result of an operation between unaligned Series will have the \_\_\_\_\_ of the indexes involved.  
(i) intersection (ii) union  
(iii) total (iv) count

**SECTION - B (15 Marks)**

Answer ALL Questions

ALL Questions Carry EQUAL Marks (5 x 3 = 15)

6. a) Explain about the modes of Python Interpreter.  
OR  
b) Discuss various data types in Python.
7. a) Write a note on String slice function.  
OR  
b) Differentiate between expression and statement.
8. a) What is an instances?  
OR  
b) Brief about Operator Overloading.
9. a) Mention the uses of Modules.  
OR  
b) What is Package in Python?
10. a) Identify some popular Python packages.  
OR  
b) Write a short note on Panda.

Cont...

**SECTION -C (30 Marks)**

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

11. a) Explain the primary factors of Python.  
OR  
b) Elaborate about expressions in Python.
12. a) Describe the working principle of function with example.  
OR  
b) Assess about various operations in a List with example.
13. a) Explain the concept of Inheritance.  
OR  
b) Explain the creation of Method with suitable example.
14. a) Write a Python Program using time module.  
OR  
b) Explain the importance of Package in Python.
15. a) How NumPy is used to work with arrays? Explain.  
OR  
b) Write about the principle of Series in Panda.

Z-Z-Z

END