

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)  
BSc DEGREE EXAMINATION MAY 2024  
(Fourth Semester)  
Branch – MATHEMATICS  
C++ PROGRAMMING

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 1 = 5)

1. Which is not a feature of OOP in general definitions?  
(i) Efficient Code           (ii) Code reusability  
(iii) Modularity           (iv) Redundant data
2. C++ that has the ability to create new data types is called a  
(i) Overloaded           (ii) Extensible  
(iii) Reprehensible       (iv) Encapsulated
3. An inline function is expanded during \_\_\_\_\_  
(i) compile-time       (ii) run-time  
(iii) never expanded   (iv) end of the program
4. How many parameters does a default constructor require?  
(i) 1                       (ii) 2  
(iii) 0                   (iv) 3
5. Which type of inheritance leads to diamond problem?  
(i) Single level       (ii) Multi-level  
(iii) Multiple       (iv) Hierarchical

SECTION - B (15 Marks)

Answer ALL Questions

ALL Questions Carry EQUAL Marks

(5 x 3 = 15)

- 6 a. List out any three basic concepts of OOP's.  
OR  
b. What are the Applications in C++ programs?
- 7 a. Write short note on Tokens.  
OR  
b. Explain about Scope Resolution Operator.
- 8 a. What are the difference between call by and return by reference?  
OR  
b. Explain about Nested member functions.

Cont...

- 9 a. Write note on Copy Constructors with Example.  
OR  
b. Explain about Type Conversions.
- 10 a. Explain about Dynamic Constructors.  
OR  
b. Discuss about EOF with Example.

**SECTION -C (30 Marks)**

Answer **ALL** questions

**ALL** questions carry **EQUAL** Marks

(5 x 6 = 30)

- 11 a. Briefly explain about Benefits of OOP's.  
OR  
b. Write detail notes on Structure of C++ Program.
- 12 a. What are the difference between Operator Overloading and Overriding?  
OR  
b. Write in detail notes on Branching statement.
- 13 a. Describe the concept of Virtual functions.  
OR  
b. Brief notes on Arrays and its types.
- 14 a. Write detail notes on Destructors.  
OR  
b. Explain in detailed about Manipulation of String using operators.
- 15 a. Describe the following concept of  
(i) Single Inheritance (ii) Multiple Inheritance.  
OR  
b. Write the detail notes on Sequential I/O operations.

Z-Z-Z

END