

PSG COLLEGE OF ARTS & SCIENCE  
(AUTONOMOUS)

MSc DEGREE EXAMINATION MAY 2018  
(Fourth Semester)

Branch –MATHEMATICS

**CORE ELECTIVE-II : PROGRAMMING IN C++**

Time: Three Hours

Maximum: 75 Marks

Answer ALL questions

ALL questions carry EQUAL marks

(5 x 15 = 75)

- 1 a Discuss the Object oriented Programming concept & its benefits.  
OR  
b Discuss basic and User defined data types in C++ with suitable illustration.
- 2 a Discuss the Friend function and Inline function in C++ with suitable illustrations.  
OR  
b i) Discuss the Function Overloading concept.  
ii) Write a program to find the area of three shapes using Function Overloading Concept.
- 3 a i) Write a note on static data members with suitable example.  
ii) Write a C++ program for adding two complex numbers by using class and objects.  
OR  
b Explain  
i) Array within a class.  
ii) Array of objects with examples.
- 4 a Discuss the various types of Constructors in C++.  
OR  
b i) Discuss the Operator Overloading Concept specified of C++.  
ii) Write a program for changing the sign of three integer numbers by implementing Unary Operator Overloading Concept.
- 5 a Discuss the various types of inheritance in C++.  
OR  
b Write a C++ program to prepare a student mark sheet which displays results by implementing single inheritance concept.

Z-Z-Z

END