

P.S.G. COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)
MSc DEGREE EXAMINATION MAY 2018
(Second Semester)

Branch –**SOFTWARE SYSTEMS**
(Five year integrated)

OBJECT ORIENTED PROGRAMMING USING C++

Time: Three Hours

Maximum: 75 Marks

SECTION -A (30 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** Marks (5 x 6 = 30)

- 1 a Explain the key concepts of object oriented programming.
OR
b Explain the formatted console I/O operations with examples.
- 2 a Explain the concept of Passing arguments to functions with examples.
OR
b Write a program in C++ to illustrate the use of friend function.
- 3 a Write a program in C++ to illustrate the use of multiple inheritance.
OR
b How is a pointer to a class declared in C++? Give an example.
- 4 a Explain the concept of virtual functions with example.
OR
b Explain the concept of dynamic objects with example.
- 5 a Explain the working of function templates with example.
OR
b Write a program to check whether a given string is Palindrome or Not.

SECTION -B (45 Marks)

Answer any **THREE** questions

ALL questions carry **EQUAL** Marks (3 x 15 = 45)

- 6 Explain the following concepts with example :
(i) Various control structures in C++ (10)
(ii) Data types in C++ (5)
- 7 Explain the following concepts with example :
(i) Constructors and Destructors (10)
(ii) Overloading member function (5)
- 8 Write a program in C++ to add, subtract and multiply two complex numbers using operator overloading.
- 9 a) Write a program in C++ to create a sequential file 'STUD . DAT' containing the students mark record with the following fields :
Reg_No, Nam, Mark 1, Mark2 , Mark3.
b) Write a program to access the file 'STUD.DAT' and calculate the Total, Average, Result & Class for each record by assuming necessary logic and display all the details in a neat format :
- 10 Explain the following concepts with example :
(i) Comparing and exchanging strings (ii) Exception handling