FACULTY OF SCIENCE
B.Sc. II-Semester (CBCS) Examination, May / June 2018
Subject: Computer Science

Paper – II: Programming in C++

Time: 3 Hours

Max. Marks: 80

PART – A (5 x 4 = 20 Marks)
(Short Answer Type)
Note: Answer any FIVE of the following questions.

1. Explain about any two looping statements in C++ with proper example.
2. Define Function Overloading. Write a program to illustrate the same.
3. What are constructors? Write about types of constructors.
4. What is a class? How classes provide data encapsulation?
5. What are the various access specifiers in C++?
6. Explain about different C++ unformatted I/O operations.
7. Describe about rethrowing an exception in C++.
8. Explain the overloading with function template.

PART – B (4 x 15 = 60 Marks)
(Essay Answer Type)
Note: Answer all the questions.

9. (a) Explain concepts of Object Oriented Programming with proper examples.
   OR
   (b) What is an array? Differentiate one and two dimensional arrays. Write a C++
       program to sort the given array of numbers in ascending order.

10. (a) Explain Operator overloading as a concept of polymorphism. Write a program to
    overload operator + for adding two complex numbers.
    OR
    (b) Write in detail about friend functions and friend classes with proper programs.

11. (a) Write about inheritance and different types of inheritance in C++? Write a
    program to demonstrate the multiple inheritance
    OR
    (b) What are stream classes? Explain formatted I/ O operations with example
        program.

12. (a) What is an exception? What happens if exceptions are not handled? Explain
    exception handling in C++.
    OR
    (b) Write about templates in C++. Write a C++ program to demonstrate class
        template.

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