

**BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2016 COURSE)**  
**S.Y.B.Sc.(Computer Science) Sem-III :SUMMER- 2022**  
**SUBJECT : OBJECT ORIENTED PROGRAMMING WITH C++**

Day : Saturday  
Date : 2/7/2022

**S-14880-2022**

Time : 03:00 PM-06:00 PM  
Max. Marks : 60

---

**N.B.:**

- 1) All questions are **COMPULSORY**.
  - 2) Figures to the right indicate **FULL** marks.
- 

**Q.1** Answer **ANY TWO** of the following: **(12)**

- a) Write a C++ program using student class to display student record with fee dues if any.
- b) Differentiate between constructor and destructor.
- c) What is operator overloading? State the rules for operator overloading.

**Q.2** Answer **ANY TWO** of the following: **(12)**

- a) Write a C++ program to overload unary operators.
- b) Describe function overloading in brief. Write a C++ program to find area of circle and triangle using function overloading.
- c) Define – Inheritance. Explain different types of inheritance.

**Q.3** Answer **ANY TWO** of the following: **(12)**

- a) Write a C++ program to implement function acting as a friend with one class.
- b) Describe various C++ access specifiers.
- c) Explain logical operators supported by C++ with proper syntax and example.

**Q.4** Answer **ANY THREE** of the following: **(12)**

- a) Write a C++ program to accept 1-D array of integers and find maximum value.
- b) Define inline function. Write C++ program to make use of inline function.
- c) Write a C++ program to make use of run – time polymorphism.
- d) Write a C++ program to find factorial of a number using recursion.

**Q.5** Answer **ANY FOUR** of the following: **(12)**

- a) What is this pointer?
- b) Define pure virtual function.
- c) What is type casting? Explain with example.
- d) Define- Polymorphism
- e) Differentiate between C and C++.
- f) Describe any two I/O stream classes.

\* \* \* \*