

BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2018 COURSE)
S.Y.B.Sc.(Computer Science) Sem-III : WINTER :- 2021
SUBJECT: OBJECT ORIENTED PROGRAMMING WITH C++

Day : Tuesday
Date 18-01-2022

W-20091-2021

Time : 10:00 AM-01:00 PM
Max. Marks: 60

N.B.

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the right indicate **FULL** marks.
 - 3) Draw neat and labelled diagrams **WHEREVER** necessary.
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Q.1 Answer **ANY TWO** of the following: **(12)**

- a) Differentiate between constructor and destructor.
- b) Write a C++ program to accept 5 employee records (empid, ename, salary) using array of objects and calculate their net salary.
- c) Write a C++ program to overload binary operator (+) for finding addition of 2 complex numbers.

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

- a) Describe various features of OOP.
- b) What is inline function? Give syntax and example.
- c) Elaborate different access specifiers supported by C++.

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

- a) Explain call by value and call by reference with the help of suitable example.
- b) Write C++ program to overload 'area' function for calculating area of a circle and triangle.
- c) Write a C++ program to show the use of inside and outside class member function definition.

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

- a) What is 'this' pointer? Write a C++ program to show the use of 'this' pointer.
- b) State the rules for overloading operators.
- c) Describe different types of inheritance.
- d) Give syntax and example of 'while' loop.

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

- a) Define friend function. Give syntax.
- b) What is scope resolution operator?
- c) Define- class, object.
- d) Differentiate between C and C++.
- e) Explain different types of logical operators.
- f) State the operators which cannot be overloaded.