

BACHELOR OF SCIENCE (COMPUTER SCIENCE) (CBCS - 2018 COURSE)
S.Y.B.Sc.(Computer Science) Sem-III : WINTER- 2022
SUBJECT : OBJECT ORIENTED PROGRAMMING WITH C++

Day : Tuesday

Time : 10:00 AM-01:00 PM

Date : 6/12/2022

W-20091-2022

Max. Marks : 60

N.B.:

- 1) All questions are **COMPULSORY**.
 - 2) Figures to the **RIGHT** indicate **FULL** marks.
 - 3) Draw neat labeled diagram **WHEREVER** necessary.
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Q.1 Answer **ANY TWO** of the following: **[12]**

- a) Describe different data types supported by C++ with their memory requirements.
- b) Define polymorphism. Also explain types of polymorphism.
- c) Write a C++ program using array of objects to calculate net salary of 5 employees.

Q.2 Answer **ANY TWO** of the following: **[12]**

- a) Explain features of OOP in detail.
- b) Compare and contrast operator overloading and function overloading.
- c) Write a C++ program to implement friend function.

Q.3 Answer **ANY TWO** of the following: **[12]**

- a) Explain different ways to define member functions of a class.
- b) Describe private, protected and public access specifiers.
- c) Write a C++ program to implement multiple inheritance.

Q.4 Answer **ANY THREE** of the following: **[12]**

- a) Define: Class, Object.
- b) Differentiate between structured programming and object-oriented programming.
- c) Describe different string handling functions with examples.
- d) Write a C++ program to print sum of array elements using function 'sum()'.

Q.5 Answer **ANY FOUR** of the following: **[12]**

- a) State rules for operator overloading.
- b) Give usage of break and continue statements.
- c) Write a note on virtual function.
- d) Define constructor. State its features.
- e) Give syntax and example of inline function.
- f) Give importance of static data members.

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