K23U 3415

| Reg. No. | | |
|----------|--|--|
|----------|--|--|

Name:

III Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/
Improvement) Examination, November 2023
(2019 to 2022 Admissions)
GENERAL AWARENESS COURSE IN COMPUTER SCIENCE

3A11CSC: Programming in C++

Time: 3 Hours

Max. Marks: 40

PART - A

Short answer.

Answer all questions:

 $(6 \times 1 = 6)$

- 1. What is a constructor?
- 2. What is a class?
- 3. What is dynamic memory allocation?
- 4. Define inheritance.
- 5. List the operators that cannot be overloaded in C++.
- 6. What are virtual functions?

PART - B

Short Essay.

Answer any 6 questions:

 $(6 \times 2 = 12)$

- 7. Write a note on different applications of C++.
- 8. What do you mean by reference variables?
- 9. Briefly explain function overloading.
- 10. Explain the concept of nesting of member functions.

K23U 3415



- 11. Is it possible to make a private member inheritable ? Explain.
- . 12. What are pointer to objects?
- 13. What is a file ? Which are the different classes for file stream operations ?
- 14. What are manipulators? Give examples.

PART - C

Essay.

Answer any 4 questions:

 $(4 \times 3 = 12)$

- 15. Explain inline functions with an example.
- 16. Create two files named file 1 and file 2 which contains sorted list of integers. Write a program that reads the contents of both the files and stores the merged list in sorted form in a new file.
- 17. How will you use object as function argument?
- 18. Write a program using class concept to find the sum of elements in an array.
- 19. List out the various situations for the execution of a base class constructor in inheritance.
- 20. Write a program to implement single inheritance using private derivation.

PART - D

Long Essay.

Answer any 2 questions:

 $(2 \times 5 = 10)$

- 21. Differentiate between Object Oriented Programming and Procedure Oriented Programming.
- 22. How will you use multiple constructors inside a class? Explain with suitable examples.
- 23. Write a program to perform complex number addition by overloading + operator implemented as member function.
- 24. Explain stream classes in C++.