

B.Sc. DEGREE END SEMESTER EXAMINATION: NOVEMBER 2023**SEMESTER 3: COMPUTER APPLICATION****COURSE: 15U3CRCAP06: OBJECT ORIENTED PROGRAMMING IN C++***(For Supplementary 2015/2016/2017/2018 Admissions)*

Time: Three Hours

Max. Marks: 75

PART A*Answer **all** questions. Each question carries **1** mark.*

1. What is copy constructor?
2. What are virtual base classes?
3. What you meant by member functions?
4. Define Encapsulation.
5. What are the different keywords involved in achieving Exception handling?
6. What is a stream?
7. What is function overloading?
8. What is the role of static keyword on class member variable?
9. What is the remainder for $5.0 \% 2$?
10. What is namespace?

(1 x 10 = 10)**PART B***Answer **any eight** questions. Each question carries **2** marks.*

11. What are the advantages of inheritances?
12. Explain C++ Symbolic constants. Give example
13. Compare Call by reference and return by reference.
14. What is the use of this pointer?
15. List the operators that cannot overloaded.
16. Write the syntax of switch statement.
17. Explain any four object oriented concepts.
18. Define polymorphism.
19. What is the role of protected, public and private access specifier?
20. Explain the different data types available in C++.

(2 x 8 = 16)**PART C***Answer **any five** questions. Each question carries **5** marks*

21. What are manipulators? Give examples. Explain how it works.
22. What are friend functions? Explain the characteristics with a suitable example.
23. Write a program to find the volume of cube and rectangle box using function overloading.
24. Write a programme to implement virtual base class.

25. Explain Parameterized constructor and Dynamic constructor with an example.
26. What are the special characteristics of a constructor and destructor with example?
27. Define a class string and overloaded '==' operator to compare two strings

(5 x 5 = 25)

PART D

*Answer **any two** questions. Each question carries **12** marks.*

28. How C++ support exception handling. Explain it using examples.
29. Explain inheritance, different types of inheritance. Write a program for multiple inheritances.
30. What do you mean by Static data member and static member function of a class? Explain the characteristics of a Static data members and Static member function with example?
31. Explain Binary Operator overloading in C++ with example.

(12 x 2 = 24)