Reg. No ..... Name **20U314**

B. Sc DEGREE END SEMESTER EXAMINATION OCT 2020 : JANUARY 2021

SEMESTER 3 : COMPUTER APPLICATIONS

COURSE : **19U3CRCAP6 : OBJECT ORIENTED PROGRAMMING IN C++**

(For Regular - 2019 admission)

Time : Three Hours Max. Marks: 75

PART A

Answer All (1 mark each)

1. What is conditional operator?
2. What is actual parameter?
3. What is the use of return statement in a function?
4. What do you understand by nested classes?
5. What do you mean by temporary instance of a class?
6. What you mean by forward declaration in class?
7. What you mean by Inheritance?
8. List any four operator that cannot be overloaded
9. What you mean by a pointer?
10. Define Virtual functions.

(1 x 10 = 10)

PART B

Answer any 8 (2 marks each)

11. What are arithmetic operators in C++? Distinguish between unary and binary arithmetic operators. Give examples for each of them
12. Compare "struct" and "class" keyword of C++.
13. Differentiate call by value and call by reference.
14. Write short note on the significance of the destructors
15. How are copy constructor different from normal constructors?
16. How does a compiler distinguish between a member function, defined inside the class definition and a member function defined outside the class definition?
17. Define Base class and Derived class. How they are related?
18. What is the use of do-nothing constructor?
19. Define this pointer. What is the significance of this pointer?
20. What is rethrowing an exception in C++?

(2 x 8 = 16)

PART C

Answer any 5 (5 marks each)

21. Explain briefly the concepts of data abstraction and encapsulation with the help of an example
22. Explain about fundamental data types in C++.
23. Explain about nesting of member function with example.
24. Write a program to find the salary of 100 employees using array of objects.
25. Explain different types of inheritance. How are they different from one another?
26. Explain about visibility labels in inheritance
27. Write a program to illustrate try - catch mechanism in c++.

(5 x 5 = 25)

PART D

Answer any 2 (12 marks each)

28. Explain about control structures in C++ with syntax and examples
29. What is Constructor? What are the special characteristics of a constructor? And also write a program using dynamic initialization of constructor
30. Write a C++ program using binary operator overloading and explain the difference of binary operator overloading using friend function.
31. Explain pointer to objects. Write a program to illustrate the use of pointers to objects

(12 x 2 = 24)