Reg. No ....   Name ....

BCA DEGREE END SEMESTER EXAMINATION - MARCH 2020
SEMESTER 2 : MOBILE APPLICATIONS AND CLOUD TECHNOLOGY
COURSE : **16U2CRBCA5 : OOPS WITH C++**
(For Regular - 2019 Admission & Improvement /Supplementary - 2018/2017/2016 Admissions)

Time : Three Hours   Max. Marks: 75

Section A
Answer All the Following (1 mark each)

1. Define Class?
2. Write a statement that uses a conditional operator to set grant to 25 if speed is more than 110, and to 0 otherwise.
3. What is call by reference?
4. When constructor and destructor are executed?
5. What do you mean by overloading?
6. What do you mean by abstract class?
7. Define static static memory allocation?
8. Write a C++ statement that displays the address of the variable 'testvar'?
9. How to declare a template?
10. What is function template?

(1 x 10 = 10)

Section B
Answer any 8 (2 marks each)

11. Explain the impact of access modifier *const* over variables.Support your answer with an example?
12. What is a reference variable? How is it defined in C++? What is its use?
13. What is the use of return statement in a function?
14. How does a class accomplish data abstraction and encapsulation?
15. Discuss various reasons that support the concept of inheritance in Object Oriented Language?
16. What should be the structure of a class when it has to be a class for other classes?
17. Why array of char pointers are preferred over two dimensional array of characters?
18. Define constant pointer?
19. Differentiate between the get_pointer and put_pointer of a file?
20. What is the difference between the file modes ios::out and ios::app?

(2 x 8 = 16)

Section C
Answer any 5 (5 marks each)

21. What is the difference between fundamentals data types and derived data types? Explain with examples?d
22. Explain the special characteristics of destructors?

23. What is operator overloading? Why is it necessary? How is it done.

24. Write a C++ program to demonstrate unary operator overloading?

25. Describe the facilities for dynamic memory management available in C++?

26. Illustrate the use of this pointer with the help of an example?

27. Explain about throwing and catching exception in C++ with suitable example

(5 x 5 = 25)

Section D
Answer any 2 (12 marks each)

28. Explain the basic concepts of OOP with example?

29. Define a class to represent a book in a library. Include the following members:
Data Members: Book Number, Author, Publisher,Price,No: of copies, No: of copies issued
Member function: to assign initial values, to issue a book after checking its availability, to return a book, to display book information

30. Define friend function? What are the characteristics of friend function? Explain with an example program?

31. Write a C++ program to find the biggest two given numbers of different data types using a function template?

(12 x 2 = 24)