D 43201 (Pages : 2) Name.....

Reg. No.....

SECOND SEMESTER B.C.A. DEGREE EXAMINATION, MAY 2018

(CUCBCSS–UG)

Core Course

BCA 2B 02 – OBJECT ORIENTED PROGRAMMING WITH C++

(2014–2016 Admissions)

Time : Three Hours Maximum : 80 Marks

Part A

Answer **all** *questions.*

Each question carries 1 *mark.*

1. The object _____ is associated with the standard output stream.
2. _____ is a variable which holds the address of another variable.
3. _____ variable is an alias name for a previously defined variable.
4. The members of a class declared as _____ are accessible only within the class.
5. The function declared as _____ indicates to the compiler that the body of the function can be substituted in place of the function call.
6. _____ pointer contains the address of the object through which the function is being invoked.
7. The _____ is a function declared in base class that has no definition relative to the base class
8. When the same function is used for multiple operations it is known as _____.
9. The _____ header file is required for creating and manipulating data files in C++.
10. _____ are used to create generic functions and generic classes.

(10 × 1 = 10 marks)

Part B

Answer **all** *questions.*

2 *marks each for all the questions.*

11. What is abstraction?
12. What is an Object? Give examples.
13. What is the use of inheritance in programming?
14. What is the use of manipulator? Explain with an example.
15. How the seekg(), seekp(), tellg() and tellp() functions control the file pointers?

(5 × 2 = 10 marks)

Turn over

Part C

Answer any **five** *questions.*
Each question carries 4 *marks.*

16. Explain various looping structures available in C++.
17. What is a constructor? Explain types of constructors in C++.
18. What is a friend function? What are the merits and demerits of using friend function?
19. What is multiple inheritance? Write a C++ program which illustrates multiple inheritance.
20. Explain virtual function and pure virtual function.
21. What is a stream? Explain stream classes in C++.
22. Explain file handling in C++.
23. What is a template? Explain a function template with an example.

(5 × 4 = 20 marks)

Part D

Answer any **five** *questions.*
Each question carries 8 *marks.*

24. Explain the important features of Object oriented programming.
25. Explain (a) Function overloading ; (b) Constructor overloading ; and (c) Operator overloading.
26. Explain with a program how constructors are defined in a derived class.
27. What is a manipulator? How manipulators are used to format the output? Explain with suitable examples.
28. Write a C++ program to add two complex numbers implementing binary operator overloading.
29. Files can be opened in two ways. Explain with suitable examples.
30. Explain formatted and unformatted Input-Output operations in C++.
31. Write short note on :
    (a) Compile time polymorphism.
    (b) Scope resolution operator and its need.
    (c) Inline functions and its working.
    (d) Virtual base classes and its applications.

(5 × 8 = 40 marks)