B-105

003-003302

BCA (CBCS) (Sem.-III) Examination
October-2012
C++ & Object Oriented Programming

Faculty Code : 003
Subject Code : 003302

Time : 2.5 Hours]

[Total Marks : 70

1. Multiple choice questions :   20

    1. Which concept of OOP specify the name of the object, the name of the function and an information to be sent ?
        (a) Message Passing   (b) Dynamic Binding
        (c) Data Encapsulation   (d) Polymorphism

    2. The promising areas for application of OOP include
        (a) Real time systems   (b) Object oriented database
        (c) Neutral network   (d) All of above

    3. Which of the following contains overloaded insertion operator ?
        (a) Ostream   (b) Fstream
        (c) Iostream   (d) Bufferstream

    4. Which of the following cannot be passed as a function argument ?
        (a) Reference variables   (b) Objects
        (c) Array   (d) Header files

    5. A function that is called automatically each time an object is destroyed is a_____.
        (a) Destructor   (b) Destroyer
        (c) Constructor   (d) Terminator

    6. + (plus) is a _____ operator.
        (a) Unary   (b) Binary
        (c) Both (a) & (b)   (d) None

    7. Which of the following operator can't be overloaded ?
        (a) new   (b) delete
        (c) +   (d) ?:

    8. When the compiler cannot differentiate between two overloaded constructors, they are called _____.
        (a) Ambiguous   (b) Destructed
        (c) Overloaded   (d) Dubious

    9. An exception is caused by _____.
        (a) Hardware problem   (b) A problem in OS
        (c) A syntax error   (d) A run time error

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10. Consider the following code :
    if(number>0)
    cout<<"Number is Positive" ; else
    cout<<"Number is Negative";
    What will be the output if number is equal to zero ?
    (a)/ Number is positive   (b) Number is negative
    (c) Compile time error   (d) Garbage value

11. A pure virtual function can never have a body
    (a) True   (b) False
    (c) Can't say   (d) Partially true

12. resetiosflags( ) manipulator is equivalent to which *ios* function ?
    (a) setf( )   (b) unsetf( )
    (c) reset( )   (d) flags( )

13. A static member function can be called using the class name.
    (a)/ True   (b) False
    (c) Cannot say   (d) Not possible

14. With which operator a friend cannot be used ?
    (a) ::   (b) ->
    (c) sizeof   (d) .*

15. Which mechanism does C++ support to achieve a compile time polymorphism ?
    (a) Virtual function   (b) Inheritance
    (c) Operator overloading   (d) Abstract class

16. A process of a class can contain object of another class is called _____.
    (a) Inheritance   (b) Nesting
    (c) Data encapsulation   (d) Friend

17. Which of the following way are legal to access a class data member using this pointer ?
    (a) this.x   (b) *this.x
    (c) *(this.x)   (d) (*this).x

18. When an exception is not caught, the program is aborted.
    (a) true   (b) false
    (c) cannot say   (d) not possible

19. Which of the following is legal declaration of a reference ?
    (a) int &a = 10;   (b) int *a=&15;
    (c) int &a=m;   (d) int &a=m++;

20. ADT stands for _____.
    (a) Ambiguity Data Type   (b) Animation Data Type
    (c) Access Data Type   (d) Abstract Data Type

2. (a) Attempt (any **three**) : 6
   (1) Define : Data Abstraction and Data Encapsulation.
   (2) Write a note on type casting in C++.
   (3) When do we declare a member of a class static ?
   (4) Differentiate : Dynamic Binding v/s Message Passing.
   (5) Differentiate : OOP and POP.
   (6) Why do we need preprocessor directive #include<iostream> ?

   (b) Attempt (any **three**) : 9
   (1) How does a main( ) function of C++ differ from main( ) function of C ?
   (2) Write a note on Scope Resolution Operator.
   (3) Explain merits of Friend function.
   (4) How does Memory allocate to Objects ? Explain with figure if needed.
   (5) Differentiate : Constructor v/s Destructor.
   (6) When will you make a function Inline ? Explain.

   (c) Attempt (any **two**) : 10
   (1) What is a reference variable ? What is its major use ? Explain with example.
   (2) What do you mean by function overloading ? Explain with example.
   (3) Explain constructor with example.
   (4) Explain structure of C++ program.
   (5) Write a program to concatenate two string using Operator Overloading.

3. (a) Attempt (any **three**) : 6
   (1) What is multilevel inheritance ? Describe its syntax.
   (2) What does "this" pointer points to ? Explain.
   (3) What is an exception specification ? When it is used ?
   (4) Why a pure virtual function call "do-nothing" ? Justify.
   (5) What are the advantages of saving data in binary form ?
   (6) What is an abstract class ?

   (b) Attempt (any **three**) : 9
   (1) What is a class template ? List its merits.
   (2) Write down any three manipulators with its task.
   (3) What happens if we don't use virtual function in inheritance ? Explain importance of virtual function.
   (4) Explain cin and getline( ) function with syntax.
   (5) What is single level inheritance ? Describe its syntax with advantages.
   (6) What is polymorphism ? How many types of it ? Explain any one.

(c) Attempt (any **two**) :   10

    (1)   Explain Virtual Base class with example.

    (2)   Explain Command line argument with example.

    (3)   What is file mode ? Describe various file mode options available.

    (4)   Explain static member function with example.

    (5)   Explain exception handling mechanism with example.

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