XA-140

003-003309

B.C.A. (CBCS) (Sem.-III) Examination

December-2014

CS-14 : C++ & Object Oriented Programming (New)

Faculty Code : 003
Subject Code : 003309

Time : 2½ Hours] **[Total Marks : 70**

Instructions : 1. Given question paper contains **3** question of total **70** marks.
2. Question **1** contains **20** MCQ, each question carry **1** mark.
3. Question **2** contains **3** sub question **2(a), 2(b)** and **2(c)** of total **25** marks.
4. Question **3** contains **3** sub question **3(a),3(b)** and **3(c)** of total **25** marks.

1. Choose correct answer from given option for each question : **20**

(1) Which of the following is a feature of OOP ?

(a) Polymorphism (b) Data hiding
(c) Data abstraction (d) All of the above

(2) Which stream object are available as default in C++ program ?

(a) Cin and din (b) Cout and Cin
(c) Dout and din (d) None of these

(3) Which of the following Is not applicable for overloaded function ?

(a) Member function in class (b) Constructor function
(c) Destructor function (d) None of the above

(4) What would be the output of following code ?

```
Int main()
{
int x,y=10,z=10;
x=(y ==z);
cout<<x; return 0;
}
```

(a) 0 (b) 1
(c) True (d) Error

(5) A pointer variable can be assigned _____ value of another variable.

(a) Int (b) Address
(c) Float (d) Double

(6) Implicit conversion are displayed using _____ model.

(a) Water fall model (b) Client server model

(c) New model (d) None of these

(7) Symbolic constant can be defined using _____

(a) Const (b) Enum

(c) Constant (d) (a) and (b) both

(8) What is the return type of constructor function ?

(a) Void (b) Int

(c) Float (d) None of the above

(9) ::m will refer to

(a) Global variable m (b) Local variable m

(c) Class variable m (d) Static variable m

(10) Wrapping of data and function into single unit is known as _____

(a) Polymorphism (b) Encapsulation

(c) Inheritance (d) Wrapper class

(11) Which of the following operator is used for dynamic memory allocation ?

(a) New (b) Delete

(c) Allocate (d) Free

(12) The member of structure are _____ by default and the member of class are _____ by default.

(a) public, public (b) public, private

(c) private, private (d) private, public

(13) Which of the following inheritance is not supported by C++ ?

(a) Multilevel (b) Multiple

(c) Hybrid (d) Hierarchical

(14) Which of the following operator is used by call by reference method ?

(a) * (b) Dot operator

(c) & (d) #

(15) Which of the following file mode does not allow writing data in the file ?

(a) los:app (b) los:in

(c) los:out (d) los:ate

(16) _____block always get executed In case of exception occur in program,

(a) Try block (b) Catch block

(c) Final block (d) All of the above

(17) _____ operator cannot be overloaded.

(a) Sizeof (b) *

(c) [] (d) +

(18) The protected member can be accessed _____

(a) Within same class

(b) In same class and in derived class

(c) In the same class and in the main function

(d) In all classes of current program

(19) If m=5; n=++m; then what would be the output of n=_____ and m=_____ ?

(a) M=5,n=5; (b) M=5,n=6;

(c) M=6,n=6; (d) M=6,n=5;

(20) If base class and derived class contains constructor then which of the following statement is false ?

(a) First base class constructor invoked then derived class constructor is invoked.

(b) First derived class constructor invoked then base class constructor is Invoked.

(c) Base class must have constructor.

(d) First derived class destructor is invoked then base class destructor is invoked.

2. (A) Attempt any **three** : **6**

(1) Explain concept of class and object with suitable example.

(2) Difference between structure and class with example.

(3) Explain key features of OOP.

(4) Explain cout and cin with example.

(5) Define pointer. Give difference between constant pointer and pointer to constant.

(6) Define destructor. Specify use of destructor in class.

(B) Attempt any **three** : **9**

(1) Explain default argument function and Constant argument function.

(2) Explain friend function with suitable example.

(3) Define scope resolution operator. Specify all possible use of scope resolution operator.

(4) Explain reference variable.

(5) Explain array of objects with example.

(6) Define member function.give difference between static and non-static member function.

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

(1) Define inheritance. Explain multi-level inheritance with suitable example.

(2) What is constructor ? Explain types of constructor in detail.

(3) Specify the rules of operator overloading.

(4) Explain compile time polymorphism and run-time polymorphism with example.

(5) Write a C++ code to produce following output :

1

2 3

4 5 6

7 8 9 10

11 12 13 14 15

3. (A) Attempt any **three** : **6**

(1) How many ways to overload unary operator ? Justify with example.

(2) What is abstract class ? When we need abstract class, justify.

(3) Explain virtual function.

(4) Explain setw() and.setprecision() function.

(5) Explain devide by zero exception with example.

(6) Explain template function.

(B) Attempt any **three** : **9**

(1) Explain nested class.

(2) Difference: Method overloading Vs. Method overriding.

(3) Explain manipulators.

(4) Explain any five file handling function.

(5) Explain template class with example.

(6) Explain exception handling with multiple catch block.

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

(1) Write a program to copy content of one file to another file using command line argument.

(2) Write a program to overload binary operator using friend function.

(3) Write a program that shows multi-level inheritance.

(4) Write a program to sum up 1 + 8 + 27 + 64 +,.....

(5) Write a program to overload ++(pre increment) operator.