



HCV-003-004302 Seat No. _____

B. Sc. (I.T.) (Sem. III) (CBCS) Examination

October / November – 2017

CS - 14 : Object Oriented Programming with C++

Faculty Code : 003

Subject Code : 004302

Time : Hours]

[Total Marks : 70

SECTION - I

1 Attempt following MCQ : 20

(1) The wrapping up of data and functions into a single unit is known as _____.

- (A) Data Abstraction
- (B) Inheritance
- (C) Data Hiding
- (D) Encapsulation

(2) Which of the following is known as insertion operator?

- (A) >>
- (B) <<
- (C) ::
- (D) ^

(3) `int x=94; int &y=x; y=y+5; cout<<x;`

What will be the output of above code?

- (A) 94
- (B) 95
- (C) 99
- (D) None of these

- (4) The multiple use of << in one statement is called
(A) Polymorphism (B) Reusability
(C) Cascading (D) Inheritance
- (5) The concept of using one operator for different purpose is known as _____.
(A) Operator overloading
(B) Operator overriding
(C) Function overloading
(D) None of these
- (6) The member functions defined inside the class are by default treated as _____.
(A) static (B) inline
(C) const (D) private
- (7) _____ is a member function whose name is same as the class name.
(A) Member function
(B) Friend function
(C) Constructor
(D) All of these
- (8) _____ operator cannot be overloaded.
(A) sizeof (B) +
(C) > (D) <
- (9) What is default visibility mode for members of classes in C++?
(A) protected (B) public
(C) private (D) All of these

- (10) The process of deriving a class from another derived class is known as _____.
- (A) Single inheritance
 - (B) Multiple inheritance
 - (C) Multilevel inheritance
 - (D) None of these
- (11) Which of the following operator used for dynamic memory allocation?
- (A) delete (B) new
 - (C) allocate (D) insert
- (12) Operator overloading is also known as _____.
- (A) Compile time polymorphism
 - (B) Run time polymorphism
 - (C) Both (A) and (B)
 - (D) None of these
- (13) How many copies of static members the objects of the class share?
- (A) Only one
 - (B) Depends on number of objects
 - (C) Depends on size of the object
 - (D) None of these
- (14) _____ is not a member of a class but can have an access all the members of a class.
- (A) Static function (B) Ordinary function
 - (C) Friend function (D) All of these

- (15) If there is not any constructor in a class, which constructor is called?
- (A) Default (B) Parameterized
(C) Copy (D) All of these
- (16) When a base class is derived privately, all the public members of a base class become _____ in the derived class.
- (A) Private (B) Public
(C) Protected (D) Can't say
- (17) _____ is a function declared in base class that has no definition relative to the base class'.
- (A) Virtual function
(B) Abstract function
(C) Pure virtual function
(D) All of these
- (18) _____ is the base class for istream and ostream.
- (A) ios (B) cin
(C) cout (D) Both (B) and (C)
- (19) Which block generates the exception?
- (A) try block (B) catch block
(C) Both (A) and (B) (D) None of these
- (20) _____ are specified in function declaration and used if actual argument is omitted.
- (A) Actual Argument
(B) Const Arguments
(C) Dummy Argument
(D) Default Argument

SECTION - II

- 2** (a) Attempt the following : (any **three**) **6**
- (1) What is constructor?
 - (2) Explain scope resolution operator.
 - (3) What is pure virtual function?
 - (4) Define term : Class and Object
 - (5) Explain precision() and fill() with example.
 - (6) Explain cout with insertion operator.
- (b) Attempt the following : (any **three**) **9**
- (1) Explain private member function of a class.
 - (2) Explain Basic structure of C++ program
 - (3) Explain parameterized constructor with example.
 - (4) Explain inline function with example.
 - (5) Explain this pointer in brief
 - (6) Explain default argument in function with example.
- (c) Attempt the following : (any **two**) **10**
- (1) Explain object as function argument with appropriate example.
 - (2) Write a CPP program to overload unary minus operator using friend function.

- (3) Explain Basic concept of OOP
- (4) Explain function overloading with suitable example.
- (5) Explain divide by zero exception with example.

3 (a) Attempt the following : (any **three**) **6**

- (1) Explain cin with extraction operator.
- (2) Describe the syntax of the single inheritance in C++.
- (3) What is abstract base class?
- (4) Give any four rules for operator overloading.
- (5) Explain nested if with example.
- (6) Explain pointer to object.

(b) Attempt the following : (any **three**) **9**

- (1) What is manipulator? Explain setw and endl with example.
- (2) What is reference variable? Explain with example.
- (3) Explain access specifier in C++.
- (4) Explain constant argument with example.
- (5) Explain class with defining member function.
- (6) Explain different uses of scope resolution operator.

(c) Attempt the following (any **two**)

10

- (1) What is array of object? Explain with example.
- (2) What is exception handling? Explain try and catch with suitable example.
- (3) Explain friend function with example.
- (4) Create a class time that has hours, minutes as data members, create default constructor to get time and one member function puttime() to display time. Write an appropriate main() function for it.
- (5) Write a program to create a class EMP having id, name. Derive a class SALARY from EMP to store basic, hra, da, ta & gross salary. Input and print EMP and SALARY data for one employee.
