2018
CSIT
CSIT : 1.1
ADVANCED CONCEPT IN OBJECT-ORIENTED
PROGRAMMING
Full Marks:80
Time: 3 hours

The figures in the margin indicates full marks for the questions

1. **Tick the correct answers:**   1x6=6
   (a) The members of a class are by default
      (a) public   (b) private
      (c) protected   (d) none of the above

   (b) When a class is defined, memory allocation is done
      (a) at the same time   (b) when objects are declared
      (c) when functions are called   (d) when values are passed

   (c) The following program will generate an error message

   ```
   void main()
   {
   return 0;
   }
   ```

   (a) main() cannot return value (b) void keyword is not allowed in main ()
   (c) function should return a non-zero value (d) return statement is not allowed

(d) When a function is called by ......method, it does not affect the
actual contents of actual arguments.
(a) call by value   (b) call by address
(c) call by reference   (d) none of the above

(e) In Inheritance, if base class and derived class both have destructors, the execution takes place
(a) from base class to derived class   (b) in base class only
(c) from derived class to base class   (d) in derived class only

(f) Static data member is stored in memory as
(a) number of copies   (b) two copies
(c) only one copy   (d) no copy

2. Answer the following questions   4x6=24

a. What is object oriented programming? What is the advantage of OOP over POP?
b. Describe the parts of a function?
c. What are classes and objects? Give examples.
d. How are memories allocated to objects? Explain?
e. What is multipath inheritance? What is virtual base class?
f. What is early binding and dynamic binding?

3. Answer any five questions from the following: (2 + 8)x 5)=50

a. How are member functions defined? Write a C++ program to define member function of class outside the class.
b. What is constructor? Write a C++ program to show that for each object constructor is called separately.
c. What is parameterized constructor? Write a C++ program to create a constructor with arguments and pass the arguments to the constructor.

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d. What is a static member variable? Write a C++ program to show the difference between static and non-static member variable.

e. What is multilevel inheritance? Write a C++ program to create multilevel inheritance.

f. What is friend function? Write a C++ program to access private data using non-member function. Use friend function.

g. What do you mean by operator overloading? Write a C++ program to perform addition of two objects using operator keyword.

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