WEEK 4 ASSIGNMENT

OBJECT ORIENTED PROGRAMMING

A.Choose Correct Answer.

Q­1 Which of the following in Object Oriented Programming is supported by

Function overloading and default arguments features of C++?

A) Inheritance

B) Abstraction

C) Polymorphism

D) Abstraction

Q­2 Which of the following is incorrect with respect to constructors in C++?

A) A constructor can call member function of its class.

B) If the default constructor is defined explicitly then, compiler will not

define the constructor implicitly, it calls the constructor implicitly.

C) A constructor cannot dynamically allocate for an object at the time of

their construction.

D) These cannot be static

Q­3 Predict the output?

#include <iostream> using namespace std;

class Test {

int x; Test() {

x = 5;

}

};

int main() {

Test \*t = new Test;

cout << t­>x;

}

A) 0

B) 5

C) Garbage value

D) Compiler error

Q­4 Which of the following is correct for virtual function in C++ ? (More than

one)

a) Must be declared in public section of class.

b) Virtual function can be static.

c) Virtual function should be accessed using pointers.

d) Virtual function is defined in base class.

Q­5 Multiple inheritance leaves room for a derived class to have \_\_\_\_\_\_\_

members.

A) Dynamic

B) Private

C) Public

D) Ambiguous

Q­6 What makes a class abstract?

A) The class must not have method definitions.

B) The class must have a constructor that takes no arguments.

C) The class must have a function definition equal to zero.

D) The class which cannot be instantiated as they are mainly for

inheritance.

Q­7 When two or more classes serve as base class for a derived class, the

situation is known as \_\_\_\_\_\_\_\_\_\_.

A) multiple inheritance

B) Inheritance

C) Encapsulation

D) hierarchical inheritance

Q­8 \_\_\_\_\_\_\_\_\_\_ allows for the separation of object interactions from

classes and inheritance into distinct layers of abstraction

A) Dispatching

B) Loosening

C) Detaching

D) Decoupling

Q­9 What is the use of parametric polymorphism?(more than one)

A) A function or a data type can be written generically so that it can

handle values identically without depending on their type

B) A function or a data type can be written generically so that it can

handle values identically being dependant on their type

C) A function or a data type that can accept parameters

D) Both a and c

Q­10 Which of the following is false for friend function?

A) Allows access to private or protected data in a class from outside

the class

B) both a and c

C) Too many friend functions may hamper data security

D) When a function needs to operate on private data in objects from

two different classes, the function can be declared as a friend in any

of the classes

B. WRITE THE PROGRAM OF THE FOLLOEWING

\*\*\*WAP = Write a program\*\*\*

Q1. WAP to create a class named 'Student' with a string variable 'name' and an integer variable 'roll\_no'. Assign the value of roll\_no as '2' and that of name as "John" by creating an object of the class Student.

Q3. WAP to assign and print the roll number, phone number and address of two students having names "Sam" and "John" respectively by creating two objects of the class 'Student'.

Q4. WAP to print the area and perimeter of a triangle having sides of 3, 4 and 5 units by creating a class named 'Triangle' with a function to print the area and perimeter.

Q5. WAP to print the volume of a box by creating a class named 'Volume' with an initialization list to initialize its length, breadth and height. (just to make you familiar with initialization lists)

Q6. WAP to print the area of a rectangle by creating a class named 'Area' taking the values of its length and breadth as parameters of its constructor and having a function named 'returnArea' which returns the area of the rectangle. Length and breadth of the rectangle are entered through keyboard.

Q7. WAP that would print the information (name, year of joining, salary, address) of three employees by creating a class named 'Employee'. The output should be as follows:

Name Year of joining Address

Robert 1994 64C- WallsStreat

Sam 2000 68D- WallsStreat

John 1999 26B- WallsStreat