Question 3:

Abstract Class: A class which is declared as abstract in known as an abstract class. It can have abstract and non-abstract methods. It needs to be extended and its method implemented. It cannot be instantiated.

Facts: 1. An abstract class must be declared with an abstract keyword.

2. It can have abstract and non-abstract methods.

3. It cannot be instantiated.

4. It can have constructors and static methods also.

5. It can have final methods which will force the subclass not to change the body of the method.

Example: public abstract class Bank{

public Bank(){

}

public void checkTransactions(){

}

public static void checkBalance(){

System.out.println(“………………….”);

}

public abstract void transferAmount(int amount);

}

Interface: An Interface in java is blueprint of a class. It has static constants and abstract methods.

The interface in java is a mechanism to achieve complete abstraction. There cab be only abstract methods in the java interface, not method body. It is used to achieve abstraction and multiple inheritance in java.

In other words, you can say that interface can have abstract methods and variables. It cannot have a method body.

Java interface also represents IS-A relationship.

Facts: 1. All the variables in interface are by default public, static and final.

2. An interface can implement or extend multiple interfaces.

3. When a concrete class implements an interface then it needs to provide the implementation of the methods obtained from the interface.

Example: public interface X {

abstract void displyX();

default void x1() {

System.out.println("X1 from Class X");

}

static void x2() {

System.out.println("X2 from Class X");

}

}