Session – 1

1. **Create a class Beverages,the Tea and Coffee sub classes are using the common method addMilk and they are implementing abstract method void addIngredient.**

   Code:

```
abstract class Beverages{

    void addMilk(){
       System.out.println("Add milk");
     }
    abstract void addIngredient();
  }
  class tea extends Beverages{
     @Override
     void addIngredient() {
       System.out.println("Making of tea/-");
       System.out.println("Add tea in warm water");
  }

  }
  class coffee extends Beverages{
     @Override
     void addIngredient() {
       System.out.println("Making of Coffee/-");
       System.out.println("Add coffee to make coffee");
     }
   }

 public class MainOfBev {
 public static void main(String[] args) {
    tea t1= new tea();
    t1.addIngredient();
    t1.addMilk();


    coffee c1=new coffee();
    c1.addIngredient();
```

```
        c1.addMilk();
      }

    }
```

Output:

```
  Making of tea/-
  Add tea in warm water
  Add milk
  Making of Coffee/-
  Add coffee to make coffee
  Add milk
```

Session – 2

1. **Implementing Accessibility of members across packages and classes**

Code:

```
public class Demo {
     public void display(){
     System.out.println("this is welcome function in
package 3");
      }

public static void main(String args[]){
     Demo w = new Demo();
     w.display();
  }

}
```

Output:

```
this is welcome function in package 3
```

2. **create a PrivateAccess class, private data members when we are trying to call the private data member and method of a PrivateClass class it gives us a compile-time error because private data members and methods have an access level to PrivateClass class only.**

Code:

```
class PrivateClass{
     private int a=123;
      private void Demo() {
           System.out.println("This is a private method
you can't access it");
      }
   }
```

```
public class PrivateEx extends PrivateClass {

     public static void main(String[] args) {
          PrivateEx pc =new PrivateEx();
          System.out.println(pc.a);
          pc.Demo();
      }

     }
```

Output:

```
 Exception in thread "main" java.lang.Error: Unresolved
compilation problems:
```

```
The field PrivateClass.a is not visible
The method Demo() from the type PrivateClass is not visible


     at PrivateEx.main(PrivateEx.java:15)
```

3. create a class ProtectedClass under a package pack1 in which we declare a protected method show(), create a class ProtectedAccess under a package mypack1 and import a package pack1.

Code:

```
package Pack1;

 public class ProtectedClass {

     protected  void show() {
          System.out.println("This is a show method");
     }

}

package mypack1;
  import Pack1.ProtectedClass;

  public class ProtectedAccess extends ProtectedClass {
      public static void main(String[] args) {
         ProtectedAccess pc = new ProtectedAccess();
         pc.show();
    }

}
```

Output:

```
This is a show method
```