Packages

Which of the following is/are true about packages in Java?

- 1) Every class is part of some package.
- 2) All classes in a file are part of the same package.
- 3) If no package is specified, the classes in the file go into a special unnamed package
- 4) If no package is specified, a new package is created with folder name of class and the class is put in this package.

- (A) Only 1, 2 and 3
- **(B)** Only 1, 2 and 4
- (C) Only 4
- **(D)** Only 1 and 3

Answer: (A)

- Which of the following is/are advantages of packages?
- (A) Packages avoid name clashes
- (B) Classes, even though they are visible outside their package, can have fields visible to packages only
- (C) We can have hidden classes that are used by the packages, but not visible outside.
- (D) All of the above

Answer: (D)

```
import static java.lang.System.*;
class StaticImportDemo
 public static void main(String args[])
    out.println("raju");
```

- (A) Compiler Error
- (B) Runtime Error
- (C) raju
- (D) None of the above

Answer: (C)

```
// Filename: Hello.java
package a;
public class Hello {
  private void printMessage()
    System.out.println("Hello");
  public void fun()
    printMessage();
// Filename: World.java
package b;
import a.Hello;
public class World {
  private void printMessage()
    System.out.println("World");
  public static void main(String[] args)
    Hello gfg = new Hello();
    gfg.fun();
```

- a) Hello
- b) Compilation error
- c) Runtime error
- d) World

Ans: a

```
// Filename: Hello.java
package a;
public class Hello {
  private void printMessage()
    System.out.println("Hello");
  public void fun()
    printMessage();
// Filename: World.java
package b;
import a.Hello;
public class World {
  private void printMessage()
    System.out.println("World");
  public static void main(String[] args)
    Hello gfg = new World();
    gfg.fun();
```

- a) Hello
- b) Compilation error
- c) Runtime error
- d) World

Ans: b

```
// Filename: Hello.java
package a;
public class Hello {
  private void printMessage()
    System.out.println("Hello");
  public void fun()
    printMessage();
// Filename: World.java
package b;
import a.Hello;
public class World extends Hello {
  private void printMessage()
    System.out.println("World");
  public static void main(String[] args)
    Hello gfg = new World();
    gfg.fun();
```

- a) Hello
- b) Compilation error
- c) Runtime error
- d) World

Ans: a

```
// Hello.java
package a;
public class Hello {
  public void printMessage()
    System.out.println("Hello");
// World.java
package b;
import a.Hello;
public class World extends Hello {
  private void printMessage()
    System.out.println("World");
  public static void main(String[] args)
    Hello gfg = new World();
    gfg.printMessage();
```

- a) Hello
- b) Compilation error
- c) Runtime error
- d) World

Ans: b

```
// Hello.java
package a;
public class Hello {
  void printMessage()
    System.out.println("Hello");
// World.java
package b;
import a.Hello;
public class World extends Hello {
  void printMessage()
    System.out.println("World");
  public static void main(String[] args)
    Hello gfg = new World();
    gfg.printMessage();
```

- a) Hello
- b) Compilation error
- c) Runtime error
- d) World

Ans: b

```
/* Hello.java */
package a;
public class Hello {
  public void dolt()
    printMessage();
  void printMessage()
    System.out.println("Hello");
/* World.java */
package b;
import a.Hello;
public class World {
  private static class GFG extends Hello {
    void printMessage()
      System.out.println("World");
  public static void main(String[] args)
    GFG gfg = new GFG();
    gfg.dolt();
```

- a) Hello
- b) Compilation error
- c) Runtime error
- d) World

Ans: a

Explaination

Visibility of printMessage() is default in package a. Thus, no overriding takes place here.

Which of these access specifiers can be used for a class so that its members can be accessed by a different class in the different package?

- a) Public
- b) Protected
- c) Private
- d) No Modifier

Answer: a

```
package a;
class display
    int x;
    void show()
      if (x > 1)
         System.out.print(x + " ");
  class Hello
    public static void main(String args[])
      display[] arr=new display[3];
      for(int i=0;i<3;i++)
         arr[i]=new display();
      arr[0].x = 0;
      arr[1].x = 1;
      arr[2].x = 2;
      for (int i = 0; i < 3; ++i)
         arr[i].show();
```

- a) 0
- b) 1
- c) 2
- d) 0 1 2

Answer: c

```
package pkg;
class output
public static void main(String args[])
StringBuffer s1 = new StringBuffer("Hello");
s1.setCharAt(1, x);
System.out.println(s1);
```

- a) xello
- b) xxxxx
- c) Hxllo
- d) Hexlo

Answer: c