

WEEK -7 INTERFACES MCQS

Question 1

Complete

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Which is true about the package statement in Java?

- ☒ a. It should be the first non-comment line in the Java source file.
- ☐ b. It can appear anywhere in the file as long as the syntax is correct.
- ☐ c. There can be more than one package statement.
- ☐ d. It should appear after all the import statements but before the class declaration.

Question 2

Complete

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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 4
 - ☒ b. Only 1, 2 and 3
 - ☐ c. Only 4
 - ☐ d. Only 1 and 3

Question **3**

Complete

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Which of the following is true?

- ☐ a. A class can extend more than one class.
- ☒ b. A class can extend one class and implement many interfaces.
- ☐ c. An interface can implement many interfaces.
- ☐ d. A class can extend only one class but many interfaces.

Question **4**

Complete

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The methods in an interface can not be,

- ☒ a. private
- ☐ b. abstract
- ☐ c. static
- ☐ d. None of the mentioned

Question **5**

Complete

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Given:

1. public interface IDrawable {
2. static final int SHAPE_CIRCLE=1;
3. final int SHAPE_SQUARE=2;
4. static int SHAPE_RECTANGLE=3;
5. public static const int SHAPE_TRIANGLE=4;
6. }


What is the expected behaviour on compiling the above code?

- ☐ a. Compilation error occurs at line 2.
- ☐ b. Compilation error occurs at line 4.
- ☐ c. Compilation error occurs at line 3.
- ☒ d. Compilation error occurs at line 5.

Question **6**

Complete

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What is the output of the following code?

```
interface X
{
    int i = 5;
}
class Y implements X
{
    void f()
    {
        i = 10;
        System.out.println("i="+i);
    }
}
public class Main {
    public static void main(String[] args) {
        Y obj = new Y();
        obj.f();
    }
}
```

- ☐ a. 5
- ☐ b. 0
- ☐ c. 10
- ☒ d. Compile time error

Question 7

Complete

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Which statement is true about interfaces?

- ☐ a. The keyword implements is used to specify that an interface inherits from another interface.
- ☒ b. The keyword extends is used to specify that an interface inherits from another interface.
- ☐ c. The keyword extends is used to specify that a class inherits from an interface.
- ☐ d. The keyword implements is used to specify that a class inherits from another class.

Question 8

Complete

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Which of the field declaration is legal within the body of an interface?

- ☐ a. private final static int answer = 42;
- ☒ b. int answer = 42;
- ☐ c. volatile static int answer = 42;
- ☐ d. protected static int answer = 42;

Question 9

Complete

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Given:

1. public interface Alpha {
2. String MESSAGE = "Welcome";
3. public void display();
4. }

To create an interface called Beta that has Alpha as its parent, which interface declaration is correct?

- ☐ a. public interface Beta instanceof Alpha {}
- ☒ b. public interface Beta extends Alpha {}
- ☐ c. public interface Beta implements Alpha {}
- ☐ d. public interface Beta parent Alpha {}

Question 10

Complete

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Which is true about the import statement in Java?

- ☒ a. The import statement must be the first statement after any package declaration in a file.
- ☐ b. When .* is used in an import statement, all the classes in that package and the sub-packages will be imported.
- ☐ c. The import statements must appear before any package statement is declared.
- ☐ d. The import statement is mandatory when using classes of other packages since there is no other way to use a class.

Question **11**

Complete

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Given the following,

1. interface Base {
2. boolean m1 ();
3. byte m2(short s);
4. }

Which of the following code fragment will compile?

- ☒ a. class Class2 implements Base {
 boolean m1() { return false; }
 byte m2(short s) { return 42; } }
- ☐ b. abstract class Class2 extends Base {
 public boolean m1() { return true; } }
- ☐ c. abstract class Class2 implements Base {
 public boolean m1() { return (7 > 4); } }
- ☐ d. interface Base2 implements Base {}

Question **12**

Complete

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```
interface I1 {}
interface I2 {}
class Base implements I1 {}
class Sub extends Base implements I2 {}
class Red {
    public static void main(String args[]) {
        Sub s1 = new Sub(); I2 i2 = s1;    // 1
        I1 i1 = s1;                        // 2
        Base base = s1;                    // 3
        Sub s2 = (Sub) base;                // 4
    }
}
```


A compile-time error is generated at which line?

- ☐ a. No error will be generated.
- ☐ b. 2
- ☒ c. 4
- ☐ d. 3

Question **13**

Complete

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The fields in an interface are implicitly specified as

- ☐ a. private
- ☐ b. static
- ☐ c. protected
- ☒ d. static and final

Question **14**

Complete

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Predict the output of following Java program

// Note static keyword after import.

```
import static java.lang.System.*;
```


```
class StaticImportDemo
{
    public static void main(String args[])
    {
        out.println("REC");
    }
}
```

- ☐ a. Runtime Error
- ☐ b. Compiler Error
- ☐ c. None of the mentioned
- ☒ d. REC

Question **15**

Complete

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Interfaces can have method implementation for few methods.

- ☒ a. True
- ☐ b. False

Question 16

Complete

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Suppose you are creating a class named Button that you want to include in a group of related classes called controls. Identify the correct code that includes the class in that group.

- ☒ a. package controls;
- ☐ b. public class Button
- ☐ c. import controls;
- ☐ d. package Button;

Question 17

Complete

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Which declaration in the below code represents a valid declaration within the interface?

```
1. public interface TestInterface {  
2.     volatile long value=98L;  
3.     transient long amount=67L;  
4.     Long calculate(long input);  
5.     static Integer getValue();  
6. }
```

- ☐ a. Declaration at line 3.
- ☐ b. Declaration at line 2.
- ☒ c. Declaration at line 4.
- ☐ d. Declaration at line 5.

Question 18

Complete

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```
interface I1 {  
    void draw();  
}  
  
class C implements I1 {  
    xxxxxx  
}
```

Which of the following when inserted at xxxxxx is a legal definition and implementation?

- ☐ a. protected void draw() {}
- ☐ b. void draw() {}
- ☐ c. abstract void draw() {}
- ☒ d. public void draw() {}

Question **19**

Complete

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Which is a valid declaration within an interface?

- ☒ a. `public Boolean madness(long bow);`
- ☐ b. `static char madness(double duty);`
- ☐ c. `protected short stop = 23;`
- ☐ d. `final void madness(short stop);`

Question **20**

Complete

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Given:

```
1. public interface Constants {  
2.     static final int SEASON_SUMMER=1;  
3.     final int SEASON_SPRING=2;  
4.     static int SEASON_AUTUMN=3;  
5.     public static const int SEASON_WINTER=4;  
6. }
```

What is the expected behaviour on compiling the above code?

- ☐ a. Compilation error occurs at line 4.
- ☐ b. Compilation error occurs at line 3.
- ☐ c. Compilation error occurs at line 2.
- ☒ d. Compilation error occurs at line 5.

Question **21**

Complete

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
The variables in an interface cannot be,

- ☐ a. constant
- ☒ b. protected
- ☐ c. static
- ☐ d. final

Question **22**

Complete

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Given the following,

```
interface Count {  
    short counter = 0;  
  
    void countUp();  
}  
  
public class TestCount implements Count {  
  
    public static void main(String[] args) {  
        TestCount t = new TestCount();  
        t.countUp();  
    }  
  
    public void countUp() {  
        for (int x = 6; x > counter; x--, ++counter) {  
            System.out.print(" " + counter);  
        }  
    }  
}
```


What is the result?

- ☐ a. 1 2 3 4
- ☒ b. Compilation fails
- ☐ c. 1 2 3
- ☐ d. 0 1 2 3

Question **23**

Complete

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Which of the following statements about interfaces is not true?

- ☒ a. An interface can implement another interface.
- ☐ b. A class can implement two interfaces.
- ☐ c. An interface can extend another interface.
- ☐ d. A class can extend another class.

Question **24**

Complete

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Which is a valid method signature in an interface?

- ☐ a. `public static void main(String [] args);`
- ☐ b. `protected float getVol(float x);`
- ☐ c. `private int getArea();`
- ☒ d. `boolean setFlag(Boolean [] test []);`

Question **25**

Complete

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Which of the following is not an attribute common to both abstract classes and interfaces?

- ☐ a. They both can contain abstract methods.
- ☐ b. They both can contain static methods.
- ☒ c. They both can contain static variables.
- ☐ d. They both can contain default methods.

Question **26**

Complete

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Given the following,

1. `interface DoMath {`
2. `double getArea(int raD, ; }`
- 3.
4. `interface MathPlus {`
5. `double getVol(int b, int h); }`
- 6.
- 7.
- 8.

Which code fragment inserted at lines 7 and 8 will compile?

- ☐ a. `class AllMath extends DoMath {`
`double getArea(int r); }`
- ☐ b. `class AllMath implements MathPlus {`
`double getArea(int raD, ; }`
- ☒ c. `interface AllMath extends DoMath {`
`float getAvg(int h, int l); }`
- ☐ d. `interface AllMath implements MathPlus {`
`double getVol(int x, int y); }`

Question **27**
Complete
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Given:

```
1. interface I1 {  
2.     int process();  
3. }  
4. class C implements I1 {  
5.     int process() {  
6.         System.out.println("process of C invoked");  
7.         return 1;  
8.     }  
9.     void display() {  
10.        System.out.println("display of C invoked");  
11.    }  
12.}  
13. public class TestC {  
14.     public static void main(String... args) {  
15.         C c = new C();  
16.         c.process();  
17.     }  
18.}
```

What is the expected behaviour?

- ☐ a. Compilation error at line 9.
- ☒ b. Prints "process of C invoked".
- ☐ c. Compilation error at line 5.
- ☐ d. Runtime error occurs.

Question **28**
Complete
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Imagine you are working with another team to build an application. You are developing code that uses a class that the other team has not finished writing yet. Which element of Java would best facilitate this development, allowing easy integration once the other team's code is complete?

- ☐ a. An access modifier
- ☐ b. static methods
- ☒ c. An interface
- ☐ d. An abstract class

Question **29**

Complete

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Which of the following is true about interfaces in java.

1) An interface can contain following type of members.

....public, static, final fields (i.e., constants)

....default and static methods with bodies

2) An instance of interface can be created.

3) A class can implement multiple interfaces.


4) Many classes can implement the same interface.

- ☐ a. 1, 2, 3 and 4
- ☐ b. 2, 3 and 4
- ☐ c. 1, 2 and 4
- ☒ d. 1, 3 and 4

Question **30**

Complete

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Which is correct option about java interface?

- ☐ a. Interface is used to achieve multiple inheritance in java.
- ☐ b. An interface can extend another interface.
- ☐ c. Object of an interface cannot be created.
- ☒ d. All of the mentioned

Question **31**

Complete

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You decide that you wish to add your application's class to a group of classes that are stored in the location /examples/basics.

Complete the code to do this

- ☐ a. import examples.basics;
- ☐ b. package examples/basics;
- ☐ c. import package examples.basics;
- ☒ d. package examples.basics;

Question **32**

Complete

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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 mentioned

Question **33**

Complete

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Suppose a class named App1 is located in the samples.messages package. You have compiled the class. How do you execute the class?

- ☐ a. java App1
- ☐ b. java samples.messages.App1.class
- ☒ c. java samples.messages.App1
- ☐ d. javac samples.messages.App1

Question **34**

Complete

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Which statement is true about interfaces?

- ☐ a. Interfaces allow multiple implementation inheritance.
- ☐ b. Members of an interface are never static.
- ☐ c. Members of an interface can always be declared static.
- ☒ d. Interfaces can extend any number of other interfaces.

Question **35**

Complete

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Given the code below:

```
interface MyInterface {  
    void doSomething 🎨 ;  
}  
  
class MyClass implements MyInterface {  
    // xx  
}
```

Choose the valid option that can be substituted in place of xx in the MyClass class.

- ☐ a. public native void doSomething 🎨 ;
- ☒ b. private void doSomething 🎨 { /* valid code fragments */ }
- ☐ c. void doSomething 🎨 { /* valid code fragments */ }
- ☐ d. protected void doSomething 🎨 { /* valid code fragments */ }