Access Modifier(30m)

1.

Consider the following code:

class A

{

A() { print(); }

private void print() { System.out.println("A"); }

}

class B extends A

{

int i = Math.round(3.5f);

public static void main(String[] args)

{

A a = new B();

a.print();

}

void print() { System.out.println(i); }

}

What will be the output when class B is run ?

Select 1 correct option.

a It will print A, 4.

b It will print A, A

c It will print 0, 4

d It will print 4, 4

e None of the above.

2.

Given:

1. package test;

2.

3. class Target {

4. public String name = "hello";

5. }

What can directly access and change the value of the variable name?

A. any class

B. only the Target class

C. any class in the test package

D. any class that extends Target

3.

Consider following two classes:

What will be the output of compiling and running class B ?

//in file A.java

package p1;

public class A

{

protected int i = 10;

public int getI() { return i; }

}

//in file B.java

package p2;

import p1.\*;

public class B extends p1.A

{

public void process(A a)

{

a.i = a.i\*2;

}

public static void main(String[] args)

{

A a = new B();

B b = new B();

b.process(a);

System.out.println( a.getI() );

}

}

Select 1 correct option.

a It will print 10.

b It will print 20.

c It will not compile.

d It will throw an exception at Run time.

e None of the above.

4.

Given the following classes and declarations, which of these statements about //1 and //2 are true?

class A

{

private int i = 10;

public void f(){}

public void g(){}

}

class B extends A

{

public int i = 20;

public void g(){}

}

public class C

{

A a = new A();//1

A b = new B();//2

}

Select 1 correct option.

a System.out.println(b.i); will print 10.

b The statement b.f( ); will give compile time error..

c System.out.println(b.i); will print 20

d All the above are correct.

e None of the above statements are correct.

5.

F or object o1 of class A to access a member(field or method) of object o2 of class B, when the member has no access modifier, class B must be...

Select 1 correct option.

a a Subclass of A

b in the same package as A is in.

c a Super class of A

d a subclass but may not be in the same package.

e in the same package and must be a Subclass of A.

6.

If three versions of MyClass.java exist on a file system:

Version 1 is in /foo/bar

Version 2 is in /foo/bar/baz

Version 3 is in /foo/bar/baz/bing

And the system's classpath includes:

/foo/bar/baz

And this command line is invoked from /foo

javac -classpath /foo/bar/baz/bing:/foo/bar MyClass.java

Which version will be used by javac?

A. /foo/MyClass.java

B. /foo/bar/MyClass.java

C. /foo/bar/baz/MyClass.java

D. /foo/bar/baz/bing/MyClass.java

E. The result is not predictable.

7.

Consider this class:

class A

{

private int i;

public void modifyOther(A a1)

{

a1.i = 20; //1

}

}

State whether the following statememnt is true or false:

At //1 a1.i is valid.

Select 1 correct option.

a True

b False

8.

Consider the following class.

public class Test

{

public int id;

}

Which of the following is the correct way to make the variable 'id' read only for other classes.

Select 1 correct option.

a Make 'id' private.

b Make 'id' private and provide a public method getId() which will return it's value.

c Make 'id' static and provide a public static method getId() which will return it's value.

d Make id 'protected'

9.

A class games.cards.Poker is correctly defined in the jar file Poker.jar. A user

wants to execute the main method of Poker on a UNIX system using the

command:

java games.cards.Poker What allows the user to do this?

A. put Poker.jar in directory /stuff/java, and set the CLASSPATH to include /stuff/java

B. put Poker.jar in directory /stuff/java, and set the CLASSPATH to include /stuff/java/

\*.jar

C. Put Poker.jar in directory /stuff/java, and set the CLASSPATH to include /stuff/java/

Poker.jar

D. put Poker.jar in directory /stuff/java/games/cards, and set the CLASSPATH to include

/stuff/java

E. put Poker.jar in directory /stuff/java/games/cards, and set the CLASSPATH to include

/stuff/java/\*.jar

F. put Poker.jar in directory /stuff/java/games/cards, and set the CLASSPATH to include

/stuff/java/Poker.jar

10.

Given:

1. package com.company.application;

2.

3. public class MainClass {

4. public static void main(String[] args) {}

5. }

And MainClass exists in the /apps/com/company/application directory.

Assume the CLASSPATH

environment variable is set to "." (current directory).

Which two java commands entered at the command line will run MainClass?

(Choose two.)

A. java MainClass if run from the /apps directory

B. java com.company.application.MainClass if run from the /apps directory

C. java -classpath /apps com.company.application.MainClass if run from any directory

D. java -classpath . MainClass if run from the /apps/com/company/application directory

E. java -classpath /apps/com/company/application:. MainClass if run from the /apps

directory

F. java com.company.application.MainClass if run from the /apps/com/company/

application directory

11.

Given the following directory structure:

org

| -- Robot.class

|

| -- ex

|-- Pet.class

|

|-- why

|-- Dog.class

And the following source file:

class MyClass {

Robot r;

Pet p;

Dog d;

}

Which statement(s) must be added for the source file to compile? (Choose all

that apply.)

A. package org;

B. import org.\*;

C. package org.\*;

D. package org.ex;

E. import org.ex.\*;

F. package org.ex.why;

G. package org.ex.why.Dog;

12.

Given the following definition of class, which member variables are accessible from OUTSIDE the package com.exam.qb?

package com.exam.qb;

public class TestClass

{

int i;

public int j;

protected int k;

private int l;

}

Select 2 correct options

a Member variable i.

b Member variable j.

c Member variable k.

d Member variable k, but only for subclasses.

e Member variable l.

13.

Given these classes in different files:

package xcom;

public class Useful {

int increment(int x) { return ++x; }

}

import xcom.\*; // line 1

class Needy3 {

public static void main(String[] args) {

xcom.Useful u = new xcom.Useful(); // line 2

System.out.println(u.increment(5));

}}

Which statements are true? (Choose all that apply.)

A. The output is 0. B. The output is 5.

C. The output is 6. D. Compilation fails.

E. The code compiles if line 1 is removed.

F. The code compiles if line 2 is changed to read

Useful u = new Useful();

14.

Given the default classpath:

/foo

And this directory structure:

foo

|

test

|

xcom

|--A.class

|--B.java

And these two files:

package xcom;

public class A { }

package xcom;

public class B extends A { }

Which allows B.java to compile? (Choose all that apply.)

A. Set the current directory to xcom then invoke

javac B.java

B. Set the current directory to xcom then invoke

javac -classpath . B.java

C. Set the current directory to test then invoke

javac -classpath . xcom/B.java

D. Set the current directory to test then invoke

javac -classpath xcom B.java

E. Set the current directory to test then invoke

javac -classpath xcom:. B.java

15.

Given a correctly compiled class whose source code is:

1. package com.eatables.fruits;

2. public class Apple {

3. public static void main(String[] args) {

4. // more code here

5. }

6. }

Assume that the class file is located in /foo/com/eatables/fruits/, the current

directory is /foo/, and that the classpath contains "." (current directory).

Which command line correctly runs Apple?

A. java Apple

B. java com.eatables.fruits.Apple

C. java com/eatables/fruits/Apple

D. java -cp com.eatables.fruits Apple

E. java -cp com/eatables/fruits Apple