**Java Assessment1**

**Date 15-04-2021 Time:2hours**

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**Question: 1 Given**

10. class Foo {

11. static void alpha() { /\* more code here \*/ }

12. void beta() { /\* more code here \*/ }

13. }

**Which two statements are true? (Choose two.)**

A. Foo.beta() is a valid invocation of beta().

**B. Foo.alpha() is a valid invocation of alpha().**

**C. Method beta() can directly call method alpha().**

D. Method alpha() can directly call method beta().

**Question: 2**Given

12. public class Yippee2 {

13.

14. static public void main(String [] yahoo) {

15. for(int x = 1; x < yahoo.length; x++) {

16. System.out.print(yahoo[x] + " ");

17. }

18. }

19. }

and the command line invocation:

java Yippee2 a b c

**What is the result?**

A. a b

**B. b c**

C. a b c

D. Compilation fails.

E. An exception is thrown at runtime.

**Question: 3** Given:

15. public class Yippee {

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

17. for(int x = 1; x < args.length; x++) {

18. System.out.print(args[x] + " ");

19. }

20. }

21. }

**and two separate command line invocations:**

**java Yippee**

**java Yippee 1 2 3 4**

**What is the result?**

A.No output is produced.

1 2 3

**B. No output is produced.**

2 3 4

C. No output is produced.

1 2 3 4

D. An exception is thrown at runtime.

1 2 3

E. An exception is thrown at runtime.

2 3 4

F. An exception is thrown at runtime.

1 2 3 4

**Q: 4 Given a class Repetition:**

**1. package utils;**

**2.**

**3. public class Repetition {**

**4. public static String twice(String s) { return s + s; }**

**5. }**

**and given another class Demo:**

**1. // insert code here**

**2.**

**3. public class Demo {**

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

**5. System.out.println(twice("pizza"));**

**6. }**

**7. }**

**Which code should be inserted at line 1 of Demo.java to compile and run Demo to print "pizzapizza"?**

A. import utils.\*;

B. static import utils.\*;

C. import utils.Repetition.\*;

D. static import utils.Repetition.\*;

E. import utils.Repetition.twice();

**F. import static utils.Repetition.twice;**

G. static import utils.Repetition.twice;

**Q: 5 A JavaBeans component has the following field:**

**11. private boolean enabled;**

**Which two pairs of method declarations follow the JavaBeans standard for accessing this field? (Choose two.)**

A. public void setEnabled( boolean enabled )

public boolean getEnabled()

B. public void setEnabled( boolean enabled )

public void isEnabled()

C. public void setEnabled( boolean enabled )

public boolean isEnabled()

D. public boolean setEnabled( boolean enabled )

public boolean getEnabled()

**Q: 6**

**Given classes defined in two different files:**

**1. package util;**

**2. public class BitUtils {**

**3. public static void process(byte[]) { /\* more code here \*/ }**

**4. }**

**1. package app;**

**2. public class SomeApp {**

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

**4. byte[] bytes = new byte[256];**

**5. // insert code here**

**6. }**

**7. }**

**What is required at line 5 in class SomeApp to use the process method of BitUtils?**

A. process(bytes);

B. BitUtils.process(bytes);

**C. util.BitUtils.process(bytes);**

D. SomeApp cannot use methods in BitUtils.

E. import util.BitUtils.\*; process(bytes);

**Q: 7 Given:**

**enum Example { ONE, TWO, THREE }**

**Which statement is true?**

**A. The expressions (ONE == ONE) and ONE.equals(ONE) are both guaranteed to be true**.

B. The expression (ONE < TWO) is guaranteed to be true and ONE.compareTo(TWO) is guaranteed to be less than one.

C. The Example values cannot be used in a raw java.util.HashMap; instead, the programmer must use a java.util.EnumMap.

D. The Example values can be used in a java.util.SortedSet, but the set will NOT be sorted because enumerated types do NOT implement java.lang.Comparable.

**Q: 8 Given:**

**11. public abstract class Shape {**

**12. private int x;**

**13. private int y;**

**14. public abstract void draw();**

**15. public void setAnchor(int x, int y) {**

**16. this.x = x;**

**17. this.y = y;**

**18. }**

**19. }**

**Which two classes use the Shape class correctly? (Choose two.)**

A. public class Circle implements Shape {

private int radius;

}

**B. public abstract class Circle extends Shape {**

**private int radius;**

**}**

C. public class Circle extends Shape {

private int radius;

public void draw();

}

D. public abstract class Circle implements Shape {

private int radius;

public void draw();

}

**E. public class Circle extends Shape {**

**private int radius;**

**public void draw() {/\* code here \*/}**

F. public abstract class Circle implements Shape {

private int radius;

public void draw() { /\* code here \*/ }

**Q: 09 Given:**

**10. class Nav{**

**11. public enum Direction { NORTH, SOUTH, EAST, WEST }**

**12. }**

**13. public class Sprite{**

**14. // insert code here**

**15. }**

**Which code, inserted at line 14, allows the Sprite class to compile?**

A. Direction d = NORTH;

B. Nav.Direction d = NORTH;

C. Direction d = Direction.NORTH;

**D. Nav.Direction d = Nav.Direction.NORTH;**

**Q: 10 Click the Exhibit button.**

**Which three statements are true? (Choose three.)**

A. process(bytes);

B. BitUtils.process(bytes);

C. util.BitUtils.process(bytes);

D. SomeApp cannot use methods in BitUtils.

E. import util.BitUtils.\*; process(bytes);

A. Compilation fails.

**B. The code compiles and the output is 2.**

C. If lines 16, 17 and 18 were removed, compilation would fail.

D. If lines 24, 25 and 26 were removed, compilation would fail.

**E. If lines 16, 17 and 18 were removed, the code would compile and**

**the output would be 2.**

**F. If lines 24, 25 and 26 were removed, the code would compile and**

**the output would be 1.**

**Q:12 Given:**

35. String #name = "Jane Doe";

36. int $age = 24;

37. Double \_height = 123.5;

38. double ~temp = 37.5;

**Which two statements are true? (Choose two.)**

**A. Line 35 will not compile.**

B. Line 36 will not compile.

C. Line 37 will not compile.

**D. Line 38 will not compile.**

**Q: 13 Given:**

55. int [] x = {1, 2, 3, 4, 5};

56. int y[] = x;

57. System.out.println(y[2]);

Which statement is true?

A. Line 57 will print the value 2.

**B. Line 57 will print the value 3.**

C. Compilation will fail because of an error in line 55.

D. Compilation will fail because of an error in line 56.

**Q: 14**

**A programmer needs to create a logging method that can accept an**

**arbitrary number of arguments. For example, it may be called in these ways:**

**logIt("log message1");**

**logIt("log message2","log message3");**

**logIt("log message4","log message5","log message6");**

**Which declaration satisfies this requirement?**

A. public void logIt(String \* msgs)

B. public void logIt(String [] msgs)

**C. public void logIt(String... msgs)**

D. public void logIt(String msg1, String msg2, String msg3)

**Q: 15**

**Which two code fragments correctly create and initialize a static array of int**

**elements? (Choose two.)**

**A. static final int[] a = { 100,200 };**

**B. static final int[] a;**

**static { a=new int[2]; a[0]=100; a[1]=200; }**

C. static final int[] a = new int[2]{ 100,200 };

D. static final int[] a;

static void init() { a = new int[3]; a[0]=100; a[1]=200; }

**Q: 16 Given:**

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

**12. String str = "null";**

**13. if (str == null) {**

**14. System.out.println("null");**

**15. } else (str.length() == 0) {**

**16. System.out.println("zero");**

**17. } else {**

**18. System.out.println("some");**

**19. }**

**20. }**

**What is the result?**

A. null

B. zero

C. some

**D. Compilation fails.**

E. An exception is thrown at runtime.

**Q: 17 Click the Exhibit button.**

**Given:**

34. Test t = new Test();

35. t.method(5);

**What is the output from line 5 of the Test class?**

1. public class Test {

2. int x= 12;

3. public void method(int x) {

4. x+=x;

5. System.out.println(x);

6. }

7. }

A. 5

**B. 10**

C. 12

D. 17

E. 24

**Q: 18 Given**

**11. public interface Status {**

**12. /\* insert code here \*/ int MY\_VALUE = 10;**

**13. }**

**Which three are valid on line 12? (Choose three.)**

**A. final**

**B. static**

C. native

**D. public**

E. private

F. abstract

G. protected

**Question: 19**

**A programmer is designing a class to encapsulate the information**

**about an inventory item. A JavaBeans component is needed to**

**do this. The Inventoryltem class has private instance variables to store**

**the item information:**

**10. private int itemId;**

**11. private String name;**

**12. private String description;**

**Which method signature follows the JavaBeans naming standards for**

**modifying the itemld instance variable?**

A. itemID(int itemId)

B. update(int itemId)

**C. setItemId(int itemId)**

D. mutateItemId(int itemId)

E. updateItemID(int itemId)

**Question:20**

**Given a file GrizzlyBear.java:**

**1. package animals.mammals;**

**2.**

**3. public class GrizzlyBear extends Bear {**

**4. void hunt() {**

*5.***Salmon s = findSalmon();**

**6. s.consume();**

**7. }**

**8. }**

**and another file, Salmon.java:**

**1. package animals.fish;**

**2.**

**3. public class Salmon extends Fish {**

**4. void consume() { /\* do stuff \*/ }**

*5.***}**

**Assume both classes are defined in the correct directories for theft**

**packages, and that the Mammal class correctly defines the**

**findSalmon() method. Which two changes allow this code to compile**

**correctly? (Choose two.)**

**A. add public to the start of line 4 in Salmon.java**

B. add public to the start of line 4 in GrizzlyBear.java

C. add import animals.mammals.\*; at line 2 in Salmon.java

**D. add import animals.fish.\*; at line 2 in GrizzlyBear.java**

E. add import animals.fish.Salmon.\*; at line 2 in GrizzlyBear.java

F. add import animals.mammals.GrizzlyBear.\*;at line 2 in Salmon.java

**21. Which are valid declarations? (Choose all that apply.)**

**A. int $x;**

B*.*int 123;

**C. int \_123**;

D. int #dim;

E. int %percent;

F. int \*divide;

G. int central\_sales\_region\_Summer\_2005\_gross\_sales;

**22. Which method names follow the JavaBeans standard? (Choose all that apply.)**

A. addSize

**B*.*getCust**

C. deleteRep

**D. isColorado**

E. putDimensions

**23. Given:**

**1. class Voop {**

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

**3. doStuff(1);**

**4. doStuff(1,2);**

**5. }**

**6. // insert code here**

**7. }**

**Which, inserted independently at line 6, will compile? (Choose all that apply.)**

**A. static void doStuff(int... doArgs) { }**

B*.*static void doStuff(int[] doArgs) { }

C. static void doStuff(int doArgs...) { }

D. static void doStuff(int... doArgs, int y) { }

**E. static void doStuff(int x, int... doArgs) { }**

**Answer:**

**24. Which are legal declarations? (Choose all that apply.)**

**A. short x [];**

**B*.*short [] y;**

C. short[5] x2;

D. short z2 [5];

**E. short [] z [] [];**

F. short [] y2 = [5];