Started on	Friday, 9 March 2018, 2:44 PM
State	Finished
Completed on	Monday, 26 March 2018, 9:40 PM
Time taken	17 days 5 hours
Marks	18.00/50.00
Grade	**36.00** out of 100.00

Question **1**

Incorrect

Mark 0.00 out of 1.00

Fill in the blank to make the code compile: package animal;

```
package animal;

public class Cat {

  public String name;

  public static void main(String[] meow) {

     Cat cat= new Cat();

    ____________= "Sadie";

  }

}
```

Select one:

- a. cat.setName
- b. cat-name
- c. cat.name ✗
- d. cat[name]

The correct answer is: cat.setName

Question 2

Incorrect

Mark 0.00 out of 1.00

Fill in the blanks to indicate whether a primitive or wrapper class can be assigned without the compiler using the autoboxing feature.
_____first= Integer.parseint("5");
_____second= Integer.valueOf("5");

Select one:

- a. Integer, Integer ✗
- b. Integer,int
- c. int, Integer
- d. int, int

The correct answer is: int, Integer

Question 3

Incorrect

Mark 0.00 out of 1.00

Given the following code, fill in the blank to have the code print bounce.

```
public class TennisBall {
   public TennisBall() {
   System.out.println("bounce");
   }
   public static void main(String[] slam) {
       ____________________
   }
}
```

Select one:

- a. new TennisBall;
- b. TennisBall(); ✗
- c. new TennisBall();
- d. TennisBall;

The correct answer is: new TennisBall();

Question **4**

Incorrect

Mark 0.00 out of 1.00

How do you force garbage collection to occur at a certain point?

Select one:

- a. None of the above
- b. Call System.forceGc() ✗
- c. Call System. requireGc()
- d. Call System.gc()

The correct answer is: None of the above

Question **5**

Incorrect

Mark 0.00 out of 1.00

How many instance initializers are in this code?

```
1:    public class Bowling {
2:    { System.out.println(); }
3:          public Bowling() {
4:    System.out.println();
5:}
6: static { System.out.println(); }
7:{ System.out.println(); }
8:
}
```

Select one:

- a. None ✗
- b. One
- c. Two
- d. Three

The correct answer is: Two

Question 6

Incorrect

Mark 0.00 out of 1.00

How many objects are eligible for garbage collection right before the end of the main method?

```
public class Person {
2:     public Person youngestChild;
3:
4:     public static void main(String ... args) {
5:           Person elena = new Person();
6:     Person diana = new Person();
7:     elena.youngestChild = diana;
8:     diana = null;
9:     Person zoe = new Person();
10:    elena.youngestChild = zoe;
11:    zoe = null;
12:    }
13:}
```

Select one:

- a. One
- b. None
- c. Three
- d. Two ✗

The correct answer is: One

Question **7**

Incorrect

Mark 0.00 out of 1.00

How many of the following lines compile?

```
int i = null;

Integer in = null;

Strings = null;
```

Select one:

- a. None
- b. Three
- c. Two
- d. One ✗

The correct answer is: Two

Question **8**

Incorrect

Mark 0.00 out of 1.00

How many of the following methods compile?

```
public String convert(int value) \{
    return value.toString();
\}
public String convert(Integer value) \{
    return value.toString();
\}
public String convert(Object value) \{
    return value.toString();
\}
```

Select one:

- a. None
- b. One ✗
- c. Two
- d. Three

The correct answer is: Two

Question 9

Correct

Mark 1.00 out of 1.00

How many of the string objects are eligible for garbage collection right before the end of the main method?

```
public static void main(String[] fruits) {
String fruitl = new String("apple");
String fruit2 = new String("orange");
String fruit3 = new String("pear");
fruit3 = fruit1;
fruit2 = fruit3;
fruit1 = fruit2;
}
```

Select one:

- a. None
- b. One
- c. Two ✓ All three references point to the String apple. This makes the other two String objects eligible for garbage collection and Option C correct.
- d. Three

The correct answer is: Two

Question 10

Incorrect

Mark 0.00 out of 1.00

```
Of the types double, int, and short, how many could fill in the blank to have this code output 0?
public static void main(String[] args) {
      defaultValue; System.out.println(defaultValue);
}
```

Select one:

- a. One
- b. Three
- c. None
- d. Two ✗

The correct answer is: None

Question 11

Incorrect

Mark 0.00 out of 1.00

Of the types double, int, long, and short, how many could fill in the blank to have this code output 0?

```
Static _____defaultValue;
public static void main(String[] args) {
System.out.println(defaultValue);
}
```

Select one:

- a. Four
- b. One
- c. Three
- d. Two ✗

The correct answer is: Three

Question 12

Correct

Mark 1.00 out of 1.00

Suppose foo is a reference to an instance of a class. Which of the following is not true about foo. bar?

Select one:

- a. It can be used to read from bar.
- b. It can be used to write to bar.
- c. bar is an instance variable.
- d. bar is a local variable. ✓ Dot notation is used for both reading and writing instance variables, assuming they are in scope. It cannot be used for referencing local variables,

The correct answer is: bar is a local variable.

Question 13

Incorrect

Mark 0.00 out of 1.00

Suppose you have the following code. Which of the images best represents the state of the references right before the end of the main method, assuming garbage collection hasn't run?

```
1:    public class Link {
2:       private String name;
3:       private Link next;
4:       public Link(String name, Link next) {
5:       this.name= name;
6:       this.next= next;
7:    }
8:    public void setNext(Link next) {
9:       this.next= next;
10:   }
11:   public Link getNext() {
12:         return next;
13:     }
14:   public static void main(String ... args) {
15:       Link link1 = new Link("x", null);
16:      Link link2 = new Link("y", link1);
17:      Link link3 = new Link( "z", link2);
18:      link2.setNext(link3);
19:      link3.setNext(link2);
20:      link1 = null;
21:      link3 = null;
22:   }
23: }
```

Select one:

- a. Option C
- b. Option B ✗
- c. Option D
- d. Option A

The correct answer is: Option C

Question **14**

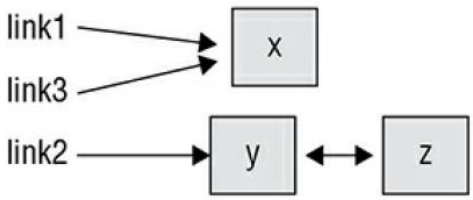
Incorrect

Mark 0.00 out of 1.00

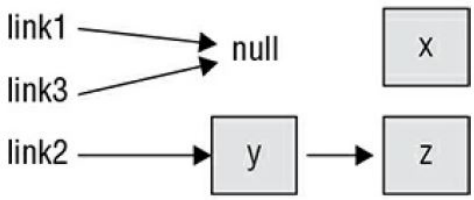
What does the following output?

```
1: public class InitOrder {
2:   public String first = "instance";
3:   public InitOrder() {
4:     first = "constructor";
5:   }
6:   { first = "block"; }
7:   public void print() {
8:      System.out.println(first);
9:   }
10:  public static void main(String... args) {
11:     new InitOrder().print();
12:   }
13: }
```

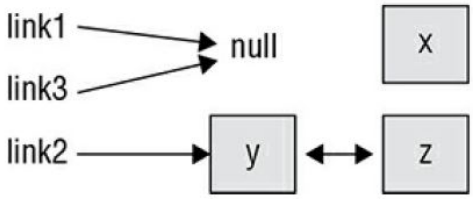
Option A



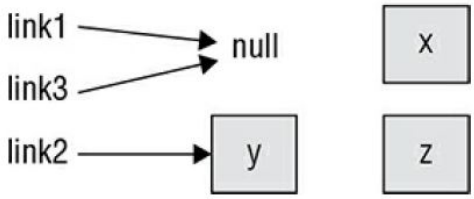
Option B



Option C



Option D



Select one:

- a. The code does not compile. ✗
- b. instance
- c. constructor
- d. block

The correct answer is: constructor

Question **15**

Incorrect

Mark 0.00 out of 1.00

What is the first line in the following code to not compile?

```
public static void main(String[] args) {
   int    Integer  - 0;      //k1
   Integer int= 0;          //k2
   Integer++;               //k3
   int++;                   //k4
}
```

Select one:

- a. kl ✗
- b. k2
- c. k3
- d. k4

The correct answer is: k2

Question **16**

Correct

Mark 1.00 out of 1.00

What is the output of the following?

```
Integer integer= new Integer(4);
System.out.print(integer.byteValue());
System.out.print("-");
inti= new Integer(4);
System.out.print(i.byteValue());
```

Select one:

- a. The code does not compile. ✓ Java does not allow calling a method on a primitive. While autoboxing does allow the assignment of an Integer to an int, it does not allow calling an instance method on a primitive. Therefore, the last line does not compile.
- b. 4-0
- c. The code compiles but throws an exception at runtime.
- d. 4-4

The correct answer is: The code does not compile.

Question **17**

Incorrect

Mark 0.00 out of 1.00

What is the output of the following?

```
1: public class InitOrder {
2:   public String first = "instance";
3:   public InitOrder() {
4:     first = "constructor";
5:   }
6:   { first = "block"; }
7:   public void print() {
8:      System.out.println(first);
9:   }
10:  public static void main(String... args) {
11:     new InitOrder().print();
12:   }
13: }
```

Select one:

- a. ab
- b. aab
- c. None of the above ✗
- d. a

The correct answer is: aab

Question 18

Incorrect

Mark 0.00 out of 1.00

What is the output of the following?

```
public  static  void main(String ... args) {
      String  chair,    table = "metal";
      chair= chair+ table;
      System.out.println(chair);
}
```

Select one:

- a. The code does not compile.
- b. metal
- c. metalmetal ✗
- d. nullmetal

The correct answer is: The code does not compile.

Question 19

Correct

Mark 1.00 out of 1.00

What is the result of running this code?

```
public class Values {
integer a=  Integer.valueOf("1");
public static void main(String[] nums) {
integer a=  Integer.valueOf("2");
      integer b = Integer.valueOf("3");
      System.out.println(a + b);
 }
}
```

Select one:

- a. The code compiles but throws an exception at runtime.
- b. The code does not compile. ✓ There is no class named integer. There is a primitive int and a class Integer. Therefore, the code does not compile, and Option C is correct. If the type was changed to Integer, Option B would be correct
- c. 5
- d. 4

The correct answer is: The code does not compile.

Question 20

Incorrect

Mark 0.00 out of 1.00

What is true of the finalize() method?

Select one:

- a. It will be called exactly once.
- b. It may be called zero or more times. ✗
- c. It may be called one or more times.
- d. It may be called zero or one times.

The correct answer is: It may be called zero or one times.

Question 21

Correct

Mark 1.00 out of 1.00

Which best describes what the new keyword does?

Select one:

- a. Switches an object reference to a new one
- b. Creates a new primitive
- c. Instantiates a new object ✓ The new keyword is used to call the constructor for a class and instantiate an instance of the class. A primitive cannot be created using the new keyword. Dealing with references happens after the object created by new is returned.
- d. Creates a copy of an existing object and treats it as a new one

The correct answer is: Instantiates a new object

Question 22

Correct

Mark 1.00 out of 1.00

Which converts a primitive to a wrapper class object without using autoboxing?

Select one:

- a. Call the asobject() method
- b. Call the constructor of the wrapper class ✓ Each wrapper class has a constructor that takes the primitive equivalent. The methods mentioned in Options A, C, and D do not exist
- c. Call the convertToObj ect() method
- d. Call the toObject() method

The correct answer is: Call the constructor of the wrapper class

Question **23**

Correct

Mark 1.00 out of 1.00

Which is a valid constructor for this class? public class TennisBall { }

Select one:

- a. public TennisBall static create() { return new TennisBall(); }
- b. public TennisBall static newinstance() { return new TennisBall():}
- c. public TennisBall() {} ✓ Options A and B are static methods rather than constructors. Option D is a method that happens to have the same name as the class. It is not a constructor because constructors don't have return types.
- d. public void TennisBall() {}

The correct answer is: public TennisBall() {}

Question **24**

Incorrect

Mark 0.00 out of 1.00

Which is correct about a local variable of type string?

Select one:

- a. It does not have a default value.
- b. It defaults to null. ✗
- c. It will not compile without initializing on the declaration line.
- d. It defaults to an empty string.

The correct answer is: It does not have a default value.

Question **25**

Correct

Mark 1.00 out of 1.00

Which is correct about an instance variable of type string?

Select one:

- a. It defaults to an empty string.
- b. It defaults to null. ✓ Instance variables have a default value based on the type. For any non-primitive, including String, that type is a reference to null. Therefore Option B is correct. If the variable was a local variable, Option C would be correct.
- c. It does not have a default value.
- d. It will not compile without initializing on the declaration line.

The correct answer is: It defaults to null.

Question 26

Incorrect

Mark 0.00 out of 1.00

Which is the first line to trigger a compiler error?
double dl = 5f; // pl
double d2 = 5.0; // p2
float fl - 5f; // p3
float f2 = 5.0; // p4

Select one:

- a. pl ✗
- b. p3
- c. p4
- d. p2

The correct answer is: p4

Question 27

Incorrect

Mark 0.00 out of 1.00

Which is the most common way to fill in the blank to implement this method?

```
public class Penguin \{
    private double beaklength;
    public static void setBeakLength(Penguin p, int b) \{
    \}
\}
```

Select one:

- a. None of the above ✗
- b. p[beaklength] = b;
- c. p['beaklength'] = b;
- d. p.beaklength = b;

The correct answer is: p.beaklength = b;

Question 28

Incorrect

Mark 0.00 out of 1.00

Which of the following can fill in the blanks to make this code compile?
_____ d = new (1_000_000_.00);

Select one:

- a. double, Double
- b. double,double ✗
- c. Double,double
- d. None of the above

The correct answer is: None of the above

Question 29

Incorrect

Mark -1.00 out of 1.00

Which of the following can fill in the blanks to make this code compile?

_____ d = new _____(1_000_000.00);

Select one:

- a. double,double ✗
- b. double, Double
- c. Double,double
- d. None of the above

The correct answer is: None of the above

Question 30

Incorrect

Mark 0.00 out of 1.00

Which of the following correctly assigns animal to both variables?
I. String cat = "animal", dog = "animal";
II. String cat - "animal"; dog - "animal";
III. String cat, dog = "animal";
IV. String cat, String dog = "animal";

Select one:

- a. I, II, III, IV
- b. I, II
- c. I
- d. I, III ✗

The correct answer is: I

Question 31

Incorrect

Mark 0.00 out of 1.00

Which of the following declarations does not compile?

Select one:

- a. int num1, num2 = 0;
- b. int num1 = 0, num2 = 0; ✗
- c. int num1, num2;
- d. double num1, int num2 = 0;

The correct answer is: double num1, int num2 = 0;

Question 32

Correct

Mark 1.00 out of 1.00

Which of the following does not compile compile?

Select one:

- a. int num = 999;
- b. None of the above; they all compile.
- c. int num = _9_99; ✓ Underscores are allowed between any two digits in a numeric literal. Underscores are not allowed at the beginning or end of the literal, making this Option the correct answer.
- d. int num = 9_9_9;

The correct answer is: int num = _9_99;

Question 33

Incorrect

Mark 0.00 out of 1.00

Which of the following does not compile?

Select one:

- a. None of the above; they all compile. ✗
- b. double num = 2.7_1_8;
- c. double num = 2.718;
- d. double num = 2._718;

The correct answer is: double num = 2._718;

Question **34**

Correct

Mark 1.00 out of 1.00

Which of the following is a wrapper class?

Select one:

- a. int
- b. Int
- c. Integer ✓ Option A is incorrect because int is a primitive. Option B is incorrect because it is not the name of a class in Java. While Option D is a class in Java, it is not a wrapper class because it does not map to a primitive.
- d. Object

The correct answer is: Integer

Question **35**

Incorrect

Mark 0.00 out of 1.00

4888888. Which of the following is not a possible output of this code, assuming it runs to completion?

```
package store;

  public class Toy {

        public void play() {

         System.out.print("play-");

        }

        public void finalize() {

        System.out.pr int("c lean- 11 )      ;

        }

        public static void main(String[] args) {

        Toy car= new Toy();

        car. play();

        System.gc();

        Toy doll= new Toy();

        doll.play();

        }

}
```

Select one:

- a. play-
- b. play-play-
- c. play-play-clean- ✗
- d. play-play-clean-clean-

The correct answer is: play-

Question **36**

Incorrect

Mark 0.00 out of 1.00

Which of the following is not a valid class declaration?

Select one:

- a. class _Outside{} ✗
- b. class 5MainSt {}
- c. class building {}
- d. class cost${}

The correct answer is: class 5MainSt {}

Question **37**

Incorrect

Mark 0.00 out of 1.00

Which of the following is not a valid order for elements in a class?

Select one:

- a. Instance variables, constructor, method names ✗
- b. Method names, instance variables, constructor
- c. Constructor, instance variables, method names
- d. None of the above: all orders are valid.

The correct answer is: None of the above: all orders are valid.

Question **38**

Correct

Mark 1.00 out of 1.00

Which of the following is not a valid variable name?

Select one:

- a. 2blue ✓ An identifier name must begin with a letter, $, or _. Numbers are only permitted for subsequent characters. Therefore, Option B is not a valid variable name.
- b. Blue
- c. blue
- d. blue$

The correct answer is: 2blue

Question **39**

Correct

Mark 1.00 out of 1.00

Which of the following is not a wrapper class?

Select one:

- a. Double
- b. Long
- c. String ✓ String is a class, but it is not a wrapper class. In order to be a wrapper class, the class must have a one-to-one mapping with a primitive.
- d. Integer

The correct answer is: String

Question 40

Correct

Mark 1.00 out of 1.00

Which of the following is the output of this code, assuming it runs to completion?

```
package store; public class Toy \{
   public void play() \{
     System.out.pr int("p lay- 11 ) ;
   \}
   public void finalizer() \{
      System.out.pr int("c lean- 11 ) ;
   \}
   public static void main(String[] fun) \{
      Toy car\= new Toy();
      car. play();
      System.gc();
      Toy doll\= new Toy();
      doll.play();
   \}
\}
```

Select one:

- a. play-
- b. play-clean-play-
- c. play-play- ✓ If there was a finalize() method, this would be a different story. However, the method here is finalizer. Tricky! That's just a normal method that doesn't get called automatically. Therefore clean is never output.
- d. play-play-clean-clean-

The correct answer is: play-play-

Question **41**

Incorrect

Mark 0.00 out of 1.00

Which of the following is true about primitives?

Select one:

- a. You can convert a wrapper class object to a primitive by calling valueof ().
- b. You can call methods on a primitive.
- c. You can convert a primitive to a wrapper class object simply by assigning it.
- d. You can store a primitive directly into an ArrayList. ✗

The correct answer is: You can convert a wrapper class object to a primitive by calling valueof ().

Question **42**

Correct

Mark 1.00 out of 1.00

Which of the following is true about string instance variables?

Select one:

- a. They can only be set once per run of the program.
- b. They can only be set in the constructor.
- c. They can be set to null. ✓ Assuming the variables are not primitives, they allow a null assignment. The other statements are false.
- d. They can never be set from outside the class they are defined in.

The correct answer is: They can be set to null.

Question **43**

Correct

Mark 1.00 out of 1.00

Which of the following lines contains a compiler error?
String title= "Weather"; // line x1
int hot, double cold; // line x2
System.out.println(hot +" "+ title); // line x3

Select one:

- a. x3
- b. x2 ✓ Java does not allow multiple Java data types to be declared in the same declaration, making Option B the correct answer. If double was removed, both hot and cold would be the same type. Then the compiler error would be on x3 because of a reference to an uninitialized variable.
- c. None of the above
- d. x1

The correct answer is: x2

Question **44**

Correct

Mark 1.00 out of 1.00

Which of the following lists of primitive numeric types is presented in order from smallest to largest data type?

Select one:

- a. byte, short, int, long ✓ These four types represent nondecimal values. While you don't need to know the exact sizes, you do need to be able to order them from largest to smallest. A byte is smallest. A short comes next, followed by int and then long.
- b. short, byte, int, long
- c. short, int, byte, long
- d. int, short, byte, long

The correct answer is: byte, short, int, long

Question **45**

Correct

Mark 1.00 out of 1.00

Which of the following lists of primitive types are presented in order from smallest to largest data type?

Select one:

- a. byte,char, float, double ✓ A byte is smaller than a char, making Option C incorrect. Bigint is not a primitive, making Option D incorrect. A double uses twice as much memory as a float variable.
- b. byte,char, double, float
- c. char, byte, float, double
- d. char,double, float, bigint

The correct answer is: byte,char, float, double

Question **46**

Correct

Mark 1.00 out of 1.00

Which of these class names best follows standard Java naming conventions?

Select one:

- a. fooBar
- b. FooBar ✓ In Java, class names begin with an uppercase letter by convention. Then they use lowercase with the exception of new words. Option B follows this convention and is correct. Option A follows the convention for variable names. Option C follows the convention for constants. Option D doesn't follow any Java conventions.
- c. FOO_BAR
- d. F_o_o_B_a_r

The correct answer is: FooBar

Question **47**

Incorrect

Mark 0.00 out of 1.00

Which pairs of statements can accurately fill in the blanks in this table?

Variable Type	Can be called within the class from what type of method
Instance	Blank 1:_____
Static	Blank 2: _____

Select one:

- a. Blank 1: an instance or static method, Blank 2: an instance or static method
- b. Blank 1: an instance method only, Blank 2: an instance or static method
- c. Blank 1: an instance or static method, Blank 2: a static method only ✗
- d. Blank 1: an instance method only, Blank 2: a static method only

The correct answer is: Blank 1: an instance method only, Blank 2: an instance or static method

Question **48**

Incorrect

Mark 0.00 out of 1.00

Which statement is true about primitives?

Select one:

- a. String is a primitive.
- b. Primitive types begin with a lowercase letter.
- c. You can create your own primitive types.
- d. Primitive types can be set to null. ✗

The correct answer is: Primitive types begin with a lowercase letter.

Question **49**

Incorrect

Mark 0.00 out of 1.00

Which two primitives have wrapper classes that are not merely the name of the primitive with an uppercase letter?

Select one:

- a. byte and int
- b. None of the above
- c. byte and char ✗
- d. char and int

The correct answer is: char and int

Question **50**

Correct

Mark 1.00 out of 1.00

Which type can fill in the blank?

Select one:

- a. double ✓ Options A and D are incorrect because byte and short do not store values with decimal points. Option B is tempting. However, 3.14 is automatically a double. It requires casting to float or writing 3.14f in order to be assigned to a float
- b. float
- c. short
- d. byte
- e. _____ pi= 3.14;

The correct answer is: double