Homework 2 Report

Q1: In Java primitive same type variables declared as together. In Option A there is different type of definitions. İt should be separated with semicolon.

Answer is Option A

Q2: This code does not compile because in line 2 string local variable chair not have been initialized.

Answer is Option D

Q3: String is an object. This have a default to expression null. Because it may not initializing in Java application.

Answer is Option B

Q4: All variable names must **begin with** a letter of alphabet, an underscore **(_)** or dollar sign **($).** But dollar sign is never recommended

After the **first** letter, variable names may contain **letters** and **digits** (0-9). Spaces and special characters not allowed.

Variable names are **case sensitive**. Uppercase and lower case characters are distinct from each other. The name can unlimited length.

You cannot use a java keyword (reserved word) for a variable name.

Resource: **https://mathbits.com/MathBits/Java/DataBasics/Namingrules.htm**

Answer is Option B

Q5: The first letter of class name always **capitalized**. Then used the exact words, Abreviations are not acceptable. Underscore character are used in class name. It separate the class name consist of many words. But Java developers handle this with the **camelCase** writing style. FooBar is the most accepted notation for a class name convention.

Answer is Option B

Q6: String is non-primitive data type and they refer to objects. In addition, **non-primitive data** types can be used call methods to perform certain operations. In this question, only first signature does not compile.

Answer is Option C

Q7: In this question, variables is that starts **with special character –underscore-** not regarded. It occurs the compile error.

Answer is Option C

Q8: Wrapper classes is a class that object wraps the **primitive data types** (Int, short double char). Naming of them consist of general words. For example, Integer Class has a form of **int** primitive data type.

Answer is Option C

Q9: In this code, storing of the data can be realize with the **wrapper classes**. There is no need to use **primitive types** and there is not any compile error. Adding operation performed in main method **scope**. So the result is 2+3 equals 5

Answer is Option B

Q10: **new** keyword in java used to create an object of class. In other words, it instantiates a class by allocating memory for object and return a reference of memory address.

Answer is Option C

Q11: We can assign the value of small data type into higher data type that never get an error. Because small type memory can adjust into the higher memory (ex. int to double) On the contrary, we cannot assign value of higher memory data type to smaller data type. Data loss is inevitable. So compiler directed us type casting.

Answer is Option D

Q12: Primitive data types in ascending order by memory size :

byte – char – short – int – long – float – double

Answer is Option A

Q13: According to the Oracle Class declarations would start with the **documentation comment .** Then it comes to the **class** statement. Other than that we across the **comments in class implementation again. We access the class with class variables** takes the place. Next we continue with **instance variables.** At the end of variables, **Constructors** used. In addition **methods** can take the last place.

Resource : https://www.oracle.com/java/technologies/javase/codeconventions-fileorganization.html

Answer is Option B

Q14: This code not compiled in line x2 **Answer is Option B**

Q15: There is not any instance initialization in this code.

Answer is Option A

Q16: Without the initialization, there is not zero as a output one this question

Answer is Option A

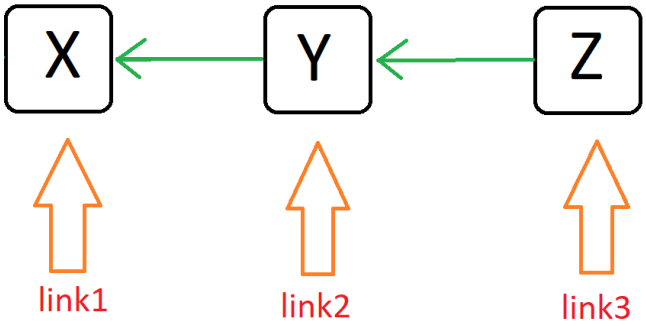
Q17: **finalize** method can called form garbage collector when the unused objects. It creates the penalty for using performance. Thus, it may be zero or one times is enough for programs.

Answer is Option A

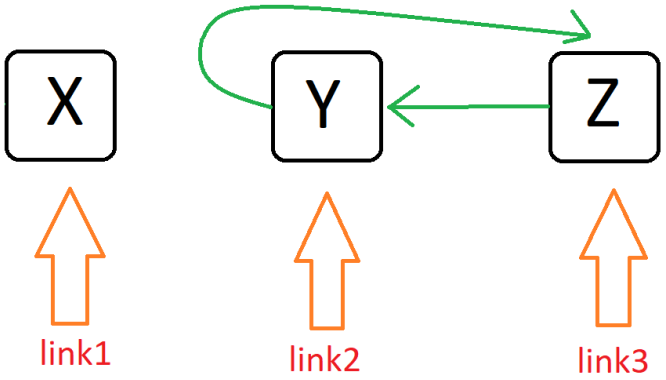
Q18: **Wrapper** classes is a class that object wraps the **primitive data types** (Int, short double char). Naming of them consist of general words. For example, Integer Class has a form of **int** primitive data type. **String** is not primitive type of class.

Answer is Option D

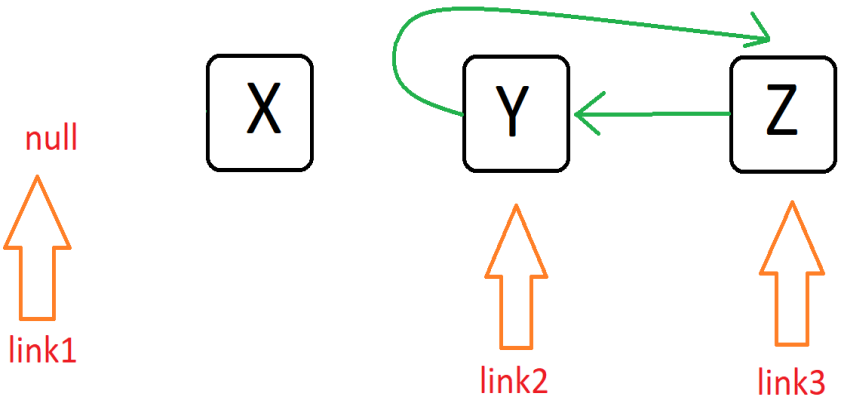
Q19: At Line 17 the state and references image on right.



At line 18, state and references represented with image on right.



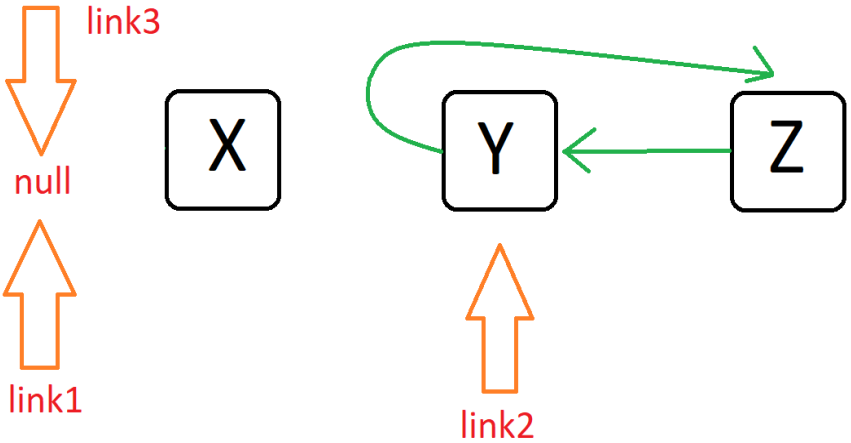
At line 20, the state and references represented with image on right.



At line 21, the state and references represented with image on right.

This situation similar the Option C.

Answer is Option C



Q20: pi variable is a constant. This needs to used in arithmetic calculations. It needs to become more precise So it can represented with double type.

Answer is Option C

Q21: The given code has two syntax error. First error message comes from line k2.

Answer is Option B

Q22: Suppose foo is a reference to an instance of class. This sentence can also considered as Bird foo = new Bird ( ); foo.bar is an instance variable because it can produced from an class. So, it can eliminate the local variable sentences.
Answer is Option B

Q23: Each class name should start with capitalized letter. Class name take digits and character after the first character. In A option breaks the rule.

Answer is Option A

Q24: double d = new double (1_000_000_.00); ➔ This statement gives the invalid Class type error.

double d = new Double (1_000_000_.00); ➔ This line gives an error about underscore must located within digits.

Double d = new double (1_000_000_.00); ➔ Double primitive must start with small letter.

To sum up none of the above statements compiled.

Answer is Option D

Q25: String type of local variable has a default value to null.

Answer is Option B

Q26: Double, int, long, and short data types have a default value 0.

Answer is Option D

Q27: **Primitive** data type predefined by language and the different sizes and values that can be stored in the variable. Each primitive type have a corresponding wrapper class. You can use the like object and call the methods on them. valueOf() is the method that use them like primitive data type.

Answer is Option C

Q28: The given code does not compile. Because **int** is primitive type and it can invoke byteValue() method**.**

Answer is Option C

Q29: **Constructor** is a special type of procedure to create object. It prepares the new objects for using in your program. Constructors usually create to initialize an object. In this question, there is a constructor example. It can called with new keyword.

Resource: https://tecloger.com/constructor-in-java/

Answer is Option D

Q30: The only first premise can correctly assigns animal to both variables.

Answer Option A

Q31: All wrapper classes with start an uppercase letter.

Answer is Option D

Q32: String instance variables have a default value null. They cannot need to set. They are immutable and created in once the string object cannot changed. They can only set by String Buffer and String Builder classes. As I mention before string instance variables set once per run of the program.

Answer is Option D

Q33: We cannot create new primitive types. String is a non-primitive type. Int Double Short long primitives can set to 0, not null. Primitive types begin with a lowercase letter.

Answer is Option A

Q34: To Forcing the Garbage collector in intended place call System.gc() command.

Answer is Option B

Q35: An Object that all references to discarded. Become a candidate for garbage collection. One of the way is this reassigning the reference eligible variable. When reference id of one object is referenced to id of some other object then the previous object has no any longer reference to it and become unreachable. That means that eligible for garbage collection. In this question; there is there reassign operation invoked and all of the references unreachable. So three of them eligible for garbage collection.

Answer is Option D

Q36: double d = new Double (1_000_000.00) this statement make the code compile.

Answer is Option B

Q37: This code prints the initialized value of constructor method.

Answer is Option B

Q38: integer i not an object. So this line does not compile. Integer and String are instance variable and they can able to take null value.

Answer is Option C

Q39: Instance variables can called an instance or static method. A Static method can be called within an instance or static method.

Answer is Option D

Q40: double num = 2._718; this gives the error. Underscores have to be located between digits. It is between dot and a digit.

Answer is Option B

Q41: Primitive data types in ascending ordered from smallest to the largest :

byte – char – short – int – long – float – double

Answer is Option A

Q42: We can reach the cat name with cat.name statement.

Answer is Option A

Q43: Code is compiled car and doll are separated instances the play method called two times.

Answer is Option B

Q44: In this code, initialization started with passing the arguments. Then we can assign the b value with this statement. P.beakLength = b;

Answer is Option A

Q45: A wrapper class can assign a primitive variable with valueOf() method. A wrapper instance can assign with parseInt() method.

Answer is Option C

Q46: In this main method, elena, diana and zoe are eligible for garbage collection.

Answer is Option D

Q47: Constructor is special method that used for give initial values for created object. Constructor take the same name of class and ıt does not return a value does not contain void. Option C is with these condition.

Answer is Option C

Q48: This question is the same with Question 43 and the answer is the same option.

Answer is Option B

Q49: Primitive data type can converted a wrapper class with calling of the constructor wrapper class. There is not **asObject**, **convertToObject** and **toObject** method.

Answer is Option B

Q50: Code is compiled correctly and the result is **aab**. Because when the constructor used the methods in constructor run in once before. Then program execute the other part of statement.

Answer is Option C