

## Homework 10

**Q1:** IndexOf method returns the index of first occurrence specified characters in a string. If there is no string, it returns the minus one. Sb object is empty. Then, this code throws the StringIndexOutOfBoundsException .

**Answer is option E**

**Q2:** According to the given this precedence table below, The precedence level start of one and ends with fourteen. I assume the ++ operator with unary post-increment at level 15.

If we show the precedence order with number option A (11, 11, 1, 14) include decreasing value, In option B (12, 12, 12, 11) has an decreasing value. Also option D (6, 12, 14, 8) has decreasing value. Other option C and E same or increasing order of precedence

**Answer options are C and E**

**Resource:** <https://introcs.cs.princeton.edu/java/11precedence/>

**Q3:** Java Beans enables some conventions in the method signature.

For setter methods, it should be public method. Return type should be void. The setter method should be take prefix with set keyword. It should take at least one argument. So `public void setHead(int head)` method is a valid bean method.

If there is an getter method. It should be public in nature. The return-type should not be void according to our requirement we have to give return-type. The getter method should take prefix with get. This method should not take any argument. So `public void getShoulders()` method is a valid bean method.

If the property is not a boolean, the getter method's prefix should be get. For example, `getName()` is a valid JavaBeans getter name for a property named "name." It isn't required to have a variable named "name". The name of the property is inferred from the getters and setters, not through any variables in the class. If the property is a boolean, the getter method's prefix is either get or is. For example, `getPrinted()` or `isPrinted()` are both valid JavaBeans names for a boolean property.

**Answer options B, C, F**

**Q4:** In Java, Array Objects does not use a method to determine it's size. The right way to do it is documented in the Java specification. It mentions that a Java Array has a property declared as one line needs to be changed and half of the cells in the 2d array have a 0 zero value. Code prints the only line number

**Answer options A, E**

**Q5:** *Errors*

- Errors in java are of type java.lang.Error.
- All errors in java are unchecked type.
- Errors happen at run time. They will not be known to compiler.
- It is impossible to recover from errors.
- Errors are mostly caused by the environment in which application is running.

*Exceptions*

- Exceptions in java are of type java.lang.Exception.
- Exceptions include both checked as well as unchecked type.
- Checked exceptions are known to compiler where as unchecked exceptions are not known to compiler because they occur at run time. You can recover from exceptions by handling them through try-catch blocks.
- Exceptions are mainly caused by the application itself.
- You can recover from exceptions by handling them through try-catch blocks.

**Resource:** <https://javaconceptoftheday.com/difference-between-error-vs-exception-in-java/>

If there error thrown the system can not recoverable. Error class is same degree class with exceptions In Throwable class. An application should catch exceptions not the errors.

**Answer options B, E**

**Q6:** Java.lang.object (**D**), savana.sand.wave (**B**), jungle tree huchingo (**C**) these are automatically accessible without using its full package name.

**Answer is option B, C, D**

**Q7:** ArrayList l = new ArrayList(); → This is mutable  
String s = new String → This is immutable  
StringBuilder sb new StringBuilder → This is mutable object  
LocalDateTime t LocalDateTime.now

Java LocalDateTime class is an immutable date-time object that represents a date-time, with the default format as yyyy-MM-dd-HH-mm-ss.zzz. It inherits object class and implements the ChronoLocalDateTime interface. Final result is two statement.

**Answer is Option C**

**Q8:** In given code do while loop turns two times during the execution. At first step delete method erase the “Leaves” part. After that second part erase the “ grow” part. The result is “wing” characters.

**Answer is option C**

**Q9:** Ceiling and floor is different objects so two of the statements return false. The last statement is true because the of different objects are assigned to each other.

**Answer is option D**

**Q10:** toUpperCase method returns a new String object which is the original string in upper case. The toUpperCase() method of String class simply used in conversion of giving string into captial form.

In first declaration of method compare the capitalized version with the original false. They are does not match each other and returns false.Capitalized letter does not match the original value.

We can use == operators for reference comparison (address comparison) and .equals() method for content comparison. In simple words, == checks if both objects point to the same memory location whereas .equals() evaluates to the comparison of values in the objects. If a class does not override the equals method, then by default it uses equals (Object o) method of the closest parent class that has overridden this method. See this for detail. Equal ignore case This method returns true if the argument is not null and the Strings are equal, ignoring case; false otherwise become true. The result is three false and three true in order.

**Answer is option C**

**Q11:** This code compiled successfully with removing Lines 15,17 (A) – Lines 15,16,21 (B) – Lines 17(C). It compiles correctly with option D but code prints four x instead of 5.

**Answer options are A, B, C**

**Q12:** If there is declaration of long value it must be represented with L or l letter.

**Answer options are D , E**

**Q13:** Local time of method gets int hour, minute, second parameter. This code does not get in while loop because get hour not smaller than one. So this get prints nothing

**Answer is option A**

**Q14:** When the code running compiler give the null pointer exception because the game array filled with null by default.

**Answer is option D**

**Q15:** The compiler gives the incorrect number of parameters error because of the square brackets.

**Answer options C, E**

**Q16:** After the sequential assignments the string sandal has no referral. This is candidate for garbage collector and not guaranteed.

**Answer options B, D**

**Q17:** If the code add the throws BubbleException in main method, this code print the stack trace of Runtime exception. But there is lack of the throws exception.

**Answer is option C**

**Q18:** The lambda expression needs the functional interface so I added the util.function package. After that this expression return the list below zero. This lead us one answer its minus five.

**Answer is option A**

**Q19:** If a try statement keyword used **catch**, **finally** are optional **finalize** is not about exception handling throws is used method declaration.

**Answer is option B**

**Q20:** This code returns 5. The control flow enters the outer while loop, it increased with one it becomes 9 then result value decreased one by one till the equal of five after that result equals 5 and break the loop. Result is equal five at final.

**Answer is option A**

**Q21:** This code compiled successfully. Firstly teeth value equals zero. First snap method runs with the one and after that increased again the two

**Answer is option C**

**Q22:** In this question, Concat method take string type parameter or int needs to reassigned to witch variable. String type is immutable.

**Answer is option A**

**Q23:** The default protected and abstract methods are applied the interface method. Private static and final methods are non-virtual methods.

**Answers are A, B, F**

**Q24:** There is a mistype of logical equality operator. If this typed true it prints the shoelace word to the screen. This is produce the type mismatch compile error.

**Answer is option D**

**Q25:** The compiler assumes every class implicitly imports the java.lang.\* package. If the class declaration does not extend another class, then it implicitly extends the java.lang.Object class

Does not contain a packages statement the compiler placed in the default package. Java does not contain import the package if unnecessary.

**Answers are B and F**

**Q26:** The given code include two interface definition. It's a normal situation but its not have the same method signature. So this code does not compiled and this is occurs in line m1.

**Answer is option D**

**Q27:** The following there is an error in println function. Compiler gives the error because the boolean profit value does not have a initialized value.

**Answer is option D**

**Q28:** *Pre-Increment Operator:* ++X “++” sign is written before variable name. Value is incremented first and then incremented new value is used in expressions.

*Post Increment :* Increment Value of Variable After Assigning  
num1++ will increment value inside “num1” variable after assigning old value to itself.

Given variable x x-- decreases the value of x by 1 and returns the original value, while ++x increases the value of x by 1 and returns the new value.

**Answer is option A**

**Q29:** In option B, compile give the constructor must be first expression type error.  
In option C, compile give the same thing with the option B  
In option D, The trouble constructor method defined with the int parameter not the long.  
It contains mismatch so this is also give the error.

**Answer is option B, C, D**

**Q30:** If I run the option a the code snippet throws the cannot make static reference to non-static field max and min. error. Same type error has seen in option B and C. option D is not compiled well. The E and F option compiled successfully.

**Answer is option E, F**

**Q31:** `booleanExpression ? expression1 : expression2`

**Option A-** When using a Java ternary construct, only one of the right-hand side expressions i.e. either expression1 or expression2 is evaluated at runtime.

**Option B-** Switch statement can include with one or more default labels. False

**Option C-** A single if-then statement can have multiple else statements TRUE

**Option D-** `||` and `|` and `&&` and `&` are not interchangeable

`|` and `&` will almost never appear in a conditional expression by themselves  
(the point of the link you included is that such things are most often errors)

**Answer is option C, E**

**Q32:**

