# Unit 07_010 – If Statement

*Video Length 12:30*

1. What goes inside the (parenthesis) of an if statement?


2. What goes inside the {curly braces} of an if statement?


3. Are the {curly braces} always required? What is the rule about whether they are always required?


4. Does indentation matter to the Java compiler? Why bother to indent?


5. What is the danger of skipping the use of the curly braces?


6. Assume there is a variable called `temperature` that holds the current temperature. Write a statement that will print "It is freezing" if the temperature is below freezing on whatever temperature scale you wish to use.





   *Unit 07_020 – If ... Else Statement

   *Video Length 14:02*

7. When does the "else" clause execute?


8. True or false: In an if...else statement, either the then or the else clause always executes.


9. Does the else clause of an if...else need to have curly braces?


10. Assume there is a variable called `temperature` that holds the current temperature. Write a statement that will print "It is freezing" if the temperature is below freezing. Write "Your plants are safe" if the temperature is not below freezing. Be sure to use proper indentation and capitalization.

*Unit 07_025 – Conditional Statement

*Video Length 9:40*

11. True or False, The conditional expression should only be used in situations where the expression returns a value.


12. True or False, The conditional expression should be used in situations where it prints one of two alternative statements.


13. Rewrite the following as an if...else statement.

```
message = (isRaining) ? "Inside" : "Outside";
```

## Unit 07_030 – Style

**Video Length 7:30**

14. Rewrite the following code in better style.

```
if(temperatureOK == true)\{
```

15. Rewrite the following code in better style.

```
if(temperatureOK == false)\{
```

16. Rewrite the following code in better style.

```
if(temperature >= 70 && temperature <=100)
    swimmingOK = true;
else
    swimmingOK = false;
```

17. What is unit testing?

## Unit 07_040 – Comparing Strings

**Video Length: 15:36**

18. Suppose there are two string variables named s1 and s2. Write the code that will print "Same" if they are equal. Ignore the case. You do not have to do anything if they are equal.

19. Suppose there are two string variables named s1 and s2. Write the code that will print "Different" if they are equal. Ignore the case. DO NOT WRITE ANYTHING IF THEY ARE EQAUL. (Hint: ! is probably your friend here).

20. What does compareTo return? (There are three answers)

21. Suppose there are two string variables named s1 and s2. Write the code that will print "S1 is smaller" if s1 would come alphabetically before s2. Ignore the case. You do not have to do anything if they are equal or s2 is less than s1.

## Unit 07_050 – It's about time

**Video Length: 17:11**

22. What are some reasons that dates and times are hard?

23. Write July 4, 2038 using ISO standard notation.

24. What are two advantages of ISO standard dates over US and European date formats?

    1.

    2.

25. How does Java store times and dates?

26. Define the following terms

    • Epoch

    • GMT

    • UTC

    • millisecond

- nanosecond

27. How long is each of the following in seconds?

- 1ms

- 500 ms

- 1000 ms

- 6000 ms

## Unit 07_060 – Dates and Times in Java

**Video Length: 17:06**

28. What class is used to repreent each of the following in modern versions of Java?

- Dates (but not times)

- Times (but not dates)

- Dates and times together

29. What is a "factory method?" When is it used?

30. Write the code to declare a variable called "today" and retrieve the current date from the system.

31. Assume there are two LocalDate objects called d1 and d2. Both have valid values set. Write the code needed to print the date that comes first on the calendar. If the two dates are the same, you may print either date.

## Unit 07_070 – Swapping

**Video Length: 5:34**

32. Assume that there are two String variables `person1` and `person2`. Write the code needed to "swap" the names, so that person1 now has the name that used to be in person2, and person2 now holds the name that used to be assigned to person1.


33. This was not covered in the video. But you should be able to look it up in the API and answer the question. Does the LocalDate class have a compareTo() method? Does it work like the String compareTo method?



## Unit 07_080 Nested If

**Video Length:**

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34. Comment or ask questions here if there are any issues you would like for the instructor to address. It is not necessary to answer if you do not have questions.