

# 5 Lecture - CS201

## Important Subjective

1. **What is a conditional statement?**

Answer: A conditional statement is a programming construct that allows a program to make decisions based on certain conditions. It uses if-then logic to determine whether to execute certain sections of code.

2. **What is the difference between if and if-else statements?**

Answer: An if statement executes a section of code if a condition is true. An if-else statement executes one section of code if the condition is true, and another section of code if the condition is false.

3. **What is the syntax for an if statement in Java?**

Answer: The syntax for an if statement in Java is:  
if (condition) {  
// code to execute if condition is true  
}

4. **What is a Boolean expression?**

Answer: A Boolean expression is an expression that evaluates to either true or false.

5. **What is the purpose of the else keyword in an if-else statement?**

Answer: The else keyword in an if-else statement is used to execute a section of code if the condition in the if statement is false.

6. **What is the syntax for an if-elif statement in Python?**

Answer: The syntax for an if-elif statement in Python is:  
if condition1:

**code to execute if condition1 is true**

```
elif condition2:  
# code to execute if condition2 is true  
else:  
# code to execute if neither condition1 nor condition2 is true
```

7. **What is the difference between the == and = operators in Python?**

Answer: The == operator is used to compare two values for equality, while the = operator is used to assign a value to a variable.

8. **What is short-circuit evaluation in conditional statements?**

Answer: Short-circuit evaluation is a process in which a conditional statement stops evaluating

expressions as soon as it can determine the outcome based on earlier evaluations.

9. **What is the syntax for a switch statement in C++?**

Answer: The syntax for a switch statement in C++ is:

```
switch (expression) {  
  case value1:  
    // code to execute if expression == value1  
    break;  
  case value2:  
    // code to execute if expression == value2  
    break;  
  default:  
    // code to execute if expression does not match any of the cases  
}
```

10. **What is the purpose of the break keyword in a switch statement?**

Answer: The break keyword in a switch statement is used to exit the switch statement after executing the code in the matching case. Without a break statement, the code in the next case will also be executed.