

Class: VII

Topic: Control Statements in Python

Month: January & February.

I Answer the following questions:

1. What is the difference between '/' and '//' operators?

Ans: The '/' is the division operator while '//' is the floor division operator. The division operator divides the numbers and give quotient as output in the decimal format while the floor division operator divides the numbers and returns quotient in the integer format.

2. What is the use of the '*' operator in string operators?

Ans: The '*' operator is used to replicate a given string a specified number of times. It is also known as the replication operator.

3. Define operator. Also, name the different types of operators.

Ans: Operators are symbols that perform arithmetic and logical operations on the operands and provide a meaningful result. The following are the different types of operators.

- i) Arithmetic Operators
- ii) String Operators
- iii) Assignment Operators
- iv) Relational Operators
- v) Logical / Boolean Operators

4. Distinguish between logical and relational operators.

Ans: Logical operators are used to combine the result of two or more relational expressions, while relational operators are used to compare two or more expressions. There are three types of logical operators: and, or, not; while there are six types of relational operators:

$>$, $<$, $>=$, $<=$, $==$, $!=$.

5. What are control statements? List the different types of control statements.

Ans: A control structure is a set of statements that controls the flow of execution in a program. The different types of control structures are:

- i) Sequential
- ii) Conditional
- iii) Iterative.

6. Describe the use of conditional statements.

Ans: In conditional programming, the most important element is the condition on which the execution is based. The conditional statements check the condition and execute the statements accordingly.

7. Write the syntax of if-else statement.

Ans: The syntax of
if.... else is:

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if <condition>:  
    statement set 1  
else:  
    statement set 2
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II Competency based question:

1. Sumit is converting a decimal number to binary number. He needs to calculate the remainder in each step. Which operation would you suggest him to use for this task?

Ans: Sumit should use the modulus operator % for calculating the remainder in each step.