

CLASS : VII

Topic : Iterative Statements in Python.

Month : January

I Answer the following questions:

1. Explain Boolean operators with an example.

Ans: Boolean operators are used to combine two or more conditional statements. They provide the result in the form of True or False. They are of three types - and, or, not. For example,  $10 > 5$  and  $6 < 8$  returns True as both the conditions evaluate to True.

2. What do you mean by iterative statements? Give example.

Ans: The statements that keep on repeating themselves as long as a given condition is true are called iterative statements or repetitive statements. For example, to print numbers from 1 to 10

 $i = 1$ 

for i in range(11):

print(i)

3. Distinguish between the 'for' and 'while' loop.

Ans: The 'for' loop is used when we have to repeat a task a specified number of times or within a given range. On the other hand, the 'while' loop can be applied to a program where the number of iterations is not known beforehand.

4. State the use of membership operators in Python.

Ans: Membership operators play an important role in controlling the working of a loop. There are two membership operators, i.e., 'in' and 'not in'.

5. What is an infinite loop? How is it created?

Ans: An infinite loop (or endless loop) is a sequence of instructions in a computer program which loops endlessly. It happens either due to the loop having no terminating condition or condition that can never be met.

## II Competency based question:

1. Aarif's father is a businessman. He wants to determine whether he made a profit or loss based on the revenue figures. Suggest an appropriate conditional construct that he can use to solve the problem.

Ans: Aarif's father can use an "if-else" conditional construct to determine whether he made a profit or a loss based on the revenue figures.



class: VIII  
Topic: Big Data  
Month:

I answer the following questions:

1. Define Big Data.

Ans: Big Data is a field that makes use of various mathematical and statistical methods to extract useful information from a large amount of data. The 'for' loop is used when we have to repeat a task a specified number of times or within a given range. On the other hand, 'while' loop can be applied to a program where the number of iterations is not known before hand.

2. Name the 5V's of Big Data.

Ans: The 5V's of Big Data are:

- \* Volume
- \* velocity
- \* variety
- \* Veracity
- \* Value.

3. Write three applications of Big Data.

Ans: The three applications of Big Data are:

- \* Forecasting Health Risks.
- \* Product Recommendation.
- \* Friend suggestion.

## II Competency-based questions.

1. Dr. Amit wants to take the help of technology to prescribe medicines to his patients. Which technique will be used to prescribe personalised medicines to the patients?

Ans: Amit should use Big Data technique.