

## Class – XII

### Lesson Plan

**Subject:** Computer Science

**Topic:** flow of control

#### **Brief Description of the lesson:**

A program's control flow is the order in which the program's code executes. The control flow of a Python program is regulated by conditional statements, loops, and function calls. This section covers the if statement and for and while loops; Raising and handling exceptions also affects control flow

#### **I - Specific Objectives:**

SP1: **KPI 1** To make students understand flow of control in Python and why it is useful in Python. **(U)**

SP2: **KPI 3** To make students learn about if else , while and For. **(U)**

SP3: **KPI 1** To make students understand the programming concepts of python. **(K)**

SP4: **KPI 2** To enable students to write small programs using python with if else and for. **(A)**

SP5: **KPI 3** To make students understand flow Control and looping statements. **(U)**

SP6: **KPI 2** To make students to write programs using IF, IF...Else and while and for. **(A)**

SP7: **KPI 2** To make students to understand importance of loops and conditional structure. **(U)**

#### **II - Behavioral Objectives:**

B1: To develop the understanding about the importance of loops and conditional structure among students systematic and step-by-step approach. **(U)**

B2: To make students to understand the problem related loop, conditional structure and to get the solution in better way. **(U)**

B3: To make students to understand how to solve the problem based on multiple condition. **(U)**

B4: To enable students to develop simple program related to loop, conditional structure. **(U)**

#### **Process / Activities:**

##### **Activity (to introduce the lesson):**

ACT1: write a program with output on the screen.

ACT2: Explain with program (loop and conditional structure)

ACT3: Program to find largest of two numbers.

ACT4: Program to print table of given numbers.

ACT5: Program to find the factorial.

##### **Activity (to support learning):**

ACT6: Program to perform all the basic programs of conditional structure.

ACT7: Programs for conversions: Kilometer to meter, Fahrenheit to Celsius,

ACT8: Program to find maximum of two numbers.

ACT9: Programs to check person is eligible to vote

ACT10: Program to check whether the number is positive, negative or Zero.

##### **Activity / Assignment (to assess learning):**

**A1:** Practice sheet related to sequential programs (marks allotted).

**A2:** Practice sheet related to iteration programs (Marks will be allotted)

**A2:** Assignment relate to if –else and nested if (marks will be allotted).

**A3:** Assignment related to while and for loop

#### **Digital content to be used**

www.w3school.com

#### **Expected Learning Outcomes**

**Student will:**

1. Be able to understand features of loop and conditional structure. (U)
2. Learn about if and elif . (U)
3. Be able to understand the programming concepts of python. (U)
4. Be able to write small programs using python.(A)
5. Be able to understand Control and Iterative statements. (U)
6. Be able to write programs using IF, IF...Else and IF –Elif-Else structure.(A)
7. Be able to understand importance of Nested If structure over IF...Else and IF –Elif-Else structure.(U)

**Behavioral Outcomes:****Student will:**

- Be able to develop systematic and step-by-step approach. (U)
  - Be able to understand the problem and to get the solution in better way. (U)
  - Be able understand how to solve the problem based on multiple condition. (U)
  - Enable to take decision depending on the outcomes. (U)
- **Placement of objective, Instructional Activities and Assessment**

• Topic: Python Programming					
Knowledge	Understanding	Application	Analysis	Synthesi s	Evaluation
SP3	SP1	SP4 ,SP6	B4		
	SP2	ACT1,ACT2, ACT 3,ACT 4			
	SP5				
	SP7				