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## UNIT III PART A CONTROL FLOW AND FUNCTIONS

### 1. What is Boolean value?

A Boolean value is either true or false. In Python, the two Boolean values are True and False (the capitalization must be exactly as shown), and the Python type is bool.

```
>>> type(True)
```

### 2. What is Boolean Expression?

- A Boolean expression is an expression that evaluates to produce a result which is a Boolean value. For example, the operator `==` tests if two values are equal. It produces (or yields) a Boolean value:
- ```
>>> 5 == (3 + 2) # Is five equal 5 to the result of 3 + 2?
```
- True

### 3. What is meant by conditional If?

The if statement in python is used to test a condition. If condition is true, statement of if block is executed otherwise it is skipped. **Syntax of python if statement:**

```
if(condition):  
    statements
```

### 4. What is chained conditional statement?

To check for multiple conditions elif Statement is used. This statement is like executing a if statement inside a else statement. **Syntax:** If statement:

```
    statements  
elif  
statement:  
    statements  
else:  
    statements
```

### 5. Write the syntax and usage of for loop

For Loop is used to iterate a variable over a sequence (i.e., list or string) in the order that they appear. **Syntax:**

```
for <variable> in <sequence>:
```

### 6. Write the syntax and usage of while loop

While Loop is used to execute number of statements or body till the condition passed in while is true. Once the condition is false, the control will come out of the loop.

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**Syntax:**

```
while
    <expression>:
    Body
```

**7.What is python break statement?**

Break statement is a jump statement that is used to pass the control to the end of the loop. Applying break statement makes the loop to terminate and controls goes to next line pointing after loop body.

**8.What is python continue statement?**

Continue Statement is a jump statement that is used to skip the present iteration and forces next iteration of loop to take place. It can be used in while as well as for loop statements.

**9.What is python pass statement?**

When you do not want any code to execute, pass Statement is used. It is same as the name refers to. It just makes the control to pass by without executing any code.

**Syntax:**

```
pass
```

**10.What is len function and explain how it is used on strings with an example.**

The len function, when applied to a string, returns the number or character in a string.

Example:

```
>>>book='Problem Solving and Python Programming'
>>>l
en(book)
38
>>>
```

**11.Explain about string slicing with examples.**

A substring of a string is obtained by taking a slice. The operator [n:m] returns the part of the string from the nth character to the mth character, including the first but excluding the last.

```
>>>book='Problem Solving and Python
Programming' >>>print(book[0:7])
Problem
>>>print(book[21:27])
python
```

**12.What are the two operators that are used in string functions?**

The in operator tests for membership.

```
>>>'V' in _VRB'
```

```
True
```

```
>>>'S' in _VRB'
```

```
>>>False
```

The not in operator returns the logical opposite results of in operator.

```
>>>'x' not
```

```
in _VRB'
```

```
True
```

### 13.What is the use of str.upper() and str.lower() functions in string?

The functions str.upper() and str.lower() will return a string with all the letters of original string converted to upper or lower case letters.

```
>>>ss='VRB Publishers'
```

```
>>>print(ss.
```

```
upper())
```

```
VRB
```

```
PUBLISHE
```

```
RS
```

```
>>>print(ss
```

```
.lower())
```

```
Vrb
```

```
publishers
```

### 14.Explain string comparison with an example.

The comparison operator works on string to check if two strings are equal.

```
>>>word='VRB Publishers'
```

```
>>>if word=='VRB
```

```
Publishers' Print(_Both
```

```
are Equal')
```

```
Both are Equal
```

### 15.How to split strings and what function is used to perform that operation?

The str.split() method is used to split strings up.

```
>>>book='Problem Solving and Python Programming'
```

```
>>>print(book.split())
```

```
['_Problem', '_Solving', '_and', '_Python', '_Programing']
```

### PART B

1.Explain the function arguments in python

2.Explain call by value and call by reference

in python 3.Briefly explain about function

prototypes

4. Answer the following questions.

What is String? How do u create a string in Python? (4 marks)

How to perform a user input in Python? Explain with example. (4 marks)

Write a program to check whether entered string is palindrome or not.

(8 marks)

5. Answer the following questions.

What is the output produced by this program given below?

(8 marks) words = 'Hello

World' print words.title()

print

words.replace('World', 'Osw

al') print words.upper()

print words\*2

Assuming num=125, determine the value of each of the following Python expressions. (8 marks)

(i) num/125

(ii) num%100

(iii) (num==21) & (2<3)

(iv) not((num<45.9) & (6\*2<=13))