GLA University

Python Programming Assignment

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Section ⇒ K

Roll No. ⇒ 30

Subject Code ⇒ BCSG 1001

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Assignment - I&t

- Discuss various features of python.

1. **Easy to use** ⟹ Python is easy to learn as compared to other programming languages. Its syntax is straight forward. There is no use of semi-colon or curly braces.

2. **Expressive language** ⟹ Python can perform complex tasks using a few lines of code. It will take only one line to execute, while C take multiple lines.

3) **Interpreted language** ⟹ It is an interpreted language, it means it executed one line at a time. Hence, easy to debug & portable.

4) **object-oriented language** ⟹ The object oriented procedure helps programmer to write reusable code and develop applications in less code.

2)

C	Python
- It is procedure oriented programming language.	1) It is an object oriented programming language.
- C executes faster.	2) Python program are slower.
- Pointer concept is present.	3) Pointers are not in use.
- It has switch statements.	4) No switch statement
- The array index in C always be positive.	5) Array index may be positive or negative.
- C doesn't contains a garbage collector.	6) It has a garbage collector.
The variables in for loops doesn't increment automatically.	7) In python increment is automatically in for loop by default of +1.

. Discuss Input & output formats in python.

$\underline{1^n}$:- **f string** ⇒ Python get user input with a function

Eg - num = input ( )

(ii) Integer input in python

Eg - a = int (input ( ))

<u>How to display output in python ⇒</u>

(i) Using formatted string litreles ..

Python string formatting using f string -

Eg ⇒ name = Ishu

print (f ' Hi {name}! How are you ?')

<u>Output ⇒</u>

Hi Ishu ! How are you ?

(ii) Using format ( ) ⇒

Eg ⇒ a = 10
b = 20
sum = a + b
d = a - b

print ('' Value of a is { } & b is { }", format (a, b) }
print (" {2 } is the sum of {0} & {1}", format (a, b, sum))

<u>Output ⇒</u>

The value of a is 10 & b is 20 .
30 is the sum of 20 & 10 .

<u>format specifier ⇒</u>

%d ⇒ Integer ,
%f ⇒ float .
%s ⇒ string .

Eg ⇒ a = int (input ( ))

    b = a + 5

    print (" The sum of %d " % b)

Output ⇒ a = 5

    The sum is 10 .

④ - Discuss the functions :-

1) - id ( ) — Returns memory location of an object.

2) type ( ) — Returns the type of any object.

3) max ( ) — Returns the largest no. in an iterable.

4) min ( ) — Returns the smallest no. in an iterable.

5) eval ( ) — evaluate & execute an expression.

6) ord ( ) — Returns the number representing unicode of specified character.

7) bin ( ) — Returns the binary of a number.

8) chr ( ) — Returns a character from specified unicode code.

9) oct ( ) — Converts a no. into octal.

10) hex ( ) — Returns hexadecimal value of a no.