Assignment -1 (Python)

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Ans.1 Features of python:

1. **Free and open source**: Python is freely available. It can be downloaded from python official website. Secondly, it is open source. It's source code is publicly available. We can download it, change it, use it and distribute it. (FLOSS)

2. It is high level language.

3. It is portable and interpreted language.

4. **Dynamically Typed**: Python is dynamically typed. This means that the type of value is decided at runtime, not is advance.

5. It supports all three programming models - Procedural, Object Oriented (OOP) and functional.

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Ans-2

C	Java	Python
1) Procedural oriented programming	1) Objected oriented programming	1) both types POP & OOP
2) developed by Dennis Ritchie	2) developed by James Gosling	2) developed by guido Van Rossum
3) Middle level language due to the use of pointers.	3) High level language	3) High level language
4) Function driven	4) object and class driven	4) function, object and class driven.
5) Extension - .C	5) Extension - .java	5) Extension - .py
6) plateform dependent	6) platform independent	6) plateform independent
7) Keywords - 32	7) keywords - 63	7) keywords - 33

8) Hello world Program :

```
#included stdio.h
int main()
(
printf ("Hello World");
3
```

output : HelloWorld

8)
```
Class Helloworld (
    public. static. void. main (
        stringE args) {
    system. out. print.ln ("Hello
        World)';
    3
3
```

output :   Hello world

8) print ("Hello World")

output: Hello world

Ans 3 Input and output formats in python.

1. input() : # single value

   example :   Var = input ("Enter a no. ")

2. using input with split() : # multiple value

   example :   x, y = input ("Enter two no"). split()

Output Formats :

1. using format specifier -

   example :   print (" %.d %s cost %.2f rs "% (6,"banana", 17))

   Output :   6 banana cost 17 rs

2. using .format method:

   example :   print (" {0} {1} cost {2} rs ". format (6,"banana" 17))

   output : 6 banana cost 14 rs

3.   x = 4
       y = 10
       z = 2
       print (x, y, z, sep= ", ")
   >>> 4, 10, 2

4. f-string method :

   example : val = "Geeks"
   print (f " {val} for {val} is a portal for {val}. ")
   output GeeksforGeeks is a portal for geeks

Ans 4 : Some functions in python :

1. id() -return the unique id (like, in C address)
   example :>>> id ("Varsha")
   >>> 140365829447504

2. Type() return the class type of argument passed.
   example >>> Type (5)
   >>> < class 'int' >

3. max () - return max value.
   example >>> max (2, 5, 4)
   >>> 5

4. min ( ) return min value
   example >>> min (2, 5, 4)
   >>> 2

5. eval ( ) - evaluate the expression passed.
   example >>> eval (10 + 10)
   >>> 20

6. ord( ) - return ASCII Value
   example >>> Ord ('A')
   >>> 65

7. bin ( ) - return binary of the argument passed
   example >>> bin (100)
   >>> 0b1100100

8. Chr() - return character at that ASCII Value.
   example >>> Chr (65)
   >>> A

9. oct() - return octal value
   example >>> oct (10)
   >>> 0o12

10. Hex() - return hexadecimal value
    example >>> hex (100)
    >>> 0x 64