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### Q-1, Discuss various features of Python.

- ⇒ Python is a high level programming language but instead of this python is very easy to understand as compare to other language like C++, C, Java, Java script, etc.

- Python is an interpreted language because python can also execute the program line by line at a time.
- Python is a integrated language because we can easily integrated python with other library languages like C, C++, Java, etc.
- Python has a large standard library which provides us a rich and fast access of modulus.
- Python is a dynamically type language. that means the type for a variable is decided at run time . we have not to specify the type of variable.

### Q-2, Compare Between Java/C and Python.

Java/C	Python
<ul style="list-style-type: none"> <li>• Java has longer lines of code</li> <li>• Java is faster than Python in execution of code</li> <li>• Java is statically typed language.</li> <li>• Semicolon is compulsory in Java.</li> <li>• Java is more complex than Python.</li> <li>• Less productivity of code</li> <li>• A pair of curly braces surrounds . A block of statement is indented (indentation).</li> </ul>	<ul style="list-style-type: none"> <li>• Python has less lines of code</li> <li>• Python is less faster than Java because it use interpreter for execution.</li> <li>• Python is dynamically typed language.</li> <li>• Semicolon is optional</li> <li>• Python is easy to learn.</li> <li>• High productivity of code</li> </ul>

Q-3, Discuss Input and Output formats in Python such as  
(if string, format and format specifier)?

Output formats:-

- ⇒ • print ("String")
- print (object)
- print ("format specifier /control string" %Variable name)
- print (object, format)
- print ({Values} and { }) , format (x, y))

Input formats:-

- Input ("Control string")
- x = input ("Enter the string")
- ⇒ int type
- x = int(input ("Enter the value of x: " ))
- float type
- x = float(input ("Enter the value of x: " ))

Q-4, Discuss the functions?

① id() → return an identity of an object.

Eg, a = id(1200)  
print(a)  
>>> 13925968723

② type() → returns the type of the object

Eg, a = 3  
type(a)  
>>> class 'int'

④ max() → returns the maximum value

Eg,  $x = \max(5, 10)$   
print(x)  
=> 10

⑤ min() → returns the minimum value.

Eg,  $x = \min(5, 10)$   
print(x)  
=> 5

⑥ eval() → returns the result of expression after evaluate.

Eg,  $x = 1$   
print(eval(x+2))  
=> 3

⑦ ord() → return ascii of character.

Eg, print(ord('A'))  
=> 65

⑧ bin() → returns the binary equivalent of a given integer.

Eg,  $x = 5$   
print(bin(x))  
=> 0b 101

⑨ chr() → returns a string representing a character where ascii value is inputted.

Eg, print(chr(65))  
=> A

⑩ oct() → returns to get an octal value of an integer.

Eg, print(oct(10))  
=> 0o12

① hex() → Used to get an hexadecimal value of an integer number.

e.g., point(hex(435))

>>> 0x163