1. What the data types in Python ? Explain.

A 1. Data types are the classification or Categorization of data items. Data types represent a kind of value which determines what operations can be performed on that data.

2. Numeric, Non-numeric and Boolean (True/false) data are the most used data types.

Numeric :- A Numeric value is any representation of data are the most used data types.

Python identifies three types of numbers.

1. Integers :- Positive and negative values.
2. float :- Real numbers with a floating point representation in which a fractional component is denoted by decimal Symbol.
3. Complex number :- A number with a real and imaginary Component represented as x+yj
4. Boolean :- Data with one of two built-in values. True or false :- Notice that 'T' and 'F' are Capital. True and false are not valid boolean and python will throw an error for them.

Sequence type :- A Sequence is ordered collection of Similar or different data types. Python has the following built-in Sequence data types.

String :- A String value is a Collection of one or more characters put in Single, double or triple quotes.

List :- A List object is an ordered Collection of one or more data items not necessarily of the same type.

Tuple :- A Tuple object is an ordered Collection of one or more data items not necessary of the same type. put in parantheses.

Dictionary :-

1) A dictionary object is an unordered Collection of data in a key : value pair form.

2) A Collection of such pairs is enclosed in curly brackets. for ex

{1 : "Stall", 2 : "Ball", 3 : "Ram", 4 : "Copi"}.

2. Briefly explain history of Python ?

Python was Conceived in the late 1980's by Guido Van Rossum at Centrum Wiskunde & Informatica in the Netherlands as a Successor to the ABC language Capable of exception handling and interfacing with the Amoeba os.

→ The program python was named after a TV show Called 'Monty Python's flying Circuss.

⇒ Python is a Snake name.

⇒ Python Supports the oops language.

First appeared : 1990 : 30 years ago.

3. Explain all the operators in python ?

① Python operators :

Arithmetic operators : these are used to perform mathematical operations like addition, Subtraction multiplication and division.

+ → x+y , * → A*B. // → A//B.

- → A-B , / → A/B % → A % y

** → A**B.

② Relation operator :- These will Compare the values. it either returs True or false according to the Condition.

> → A>B. == → A==B.

>= → A>=B ! → A!=B.

③ Logical operators :- These perform Logical AND, Logical OR. and Logical Not operation.

⇒ And → A and B.

⇒ or → A or B.

⇒ not → not A.

4. Bitwise operators :- These operators acts on bits and perform that by bit operation.

& → x & y. ^ → A ^ B

| → A | y. >> → x >>.

~ → ~A.

5. Assignment operators :- These are used to assign values to the variable.

= → x = y + z.

+= → a += b

Special operators :- These are some special type of operators like.

'identity operators → is, 'isnot.

4. Explain the features of Python.

① Simple → This language is very easy to understand

② Easy to code → It is very easy to learn and code the program. It is high level language.

3. Object oriented language :- one of the key feature of Python Oop's programming.

4. free and open source :- It is freely available of official website.

5. High Level language :- when we write program in Python we do not need to remember the system architecture

6. Portable :- Python is a portable language. A property of a program that can run on more than one kind of Computer.

7. Integrated.

8. Interpreted language.

5. Justify why python is interactive interpreted language?

1. Unlike c/c++ etc. python is an interpreted object-oriented programming language.

2. Unlike c language. The Compiler translate the whole code in one rather than line by line.

3. This is the reason why in c language. All the errors are listed during compilation only.

4. An interpreter is a translator. in Computer language which translate the given code line by line. in machine readable bytecode.

5. Python is a interactive, when a python start is. Entered followed by the return key.