Assignment-2

10) What are the data types used in Python?

(A) Numbers: Number data types store numeric values. Number objects are created when you assign a value to them.

String: Theses are the sequence of characters enclosed in single or double quotes.

Lists: A list contains an item which are seperated by comma's, and enclosed within square brackets. [ ]

Tuples: A tuple contains a list of items which are seperated by commas, but are enclosed in paranthesis.

Dictionary: They consist of key value pairs, a dictoinary key can be of any type but are generally numbers or strings. These are enclosed in curly braces.

(Q) Briefly explain history of python?

(A)
- 1980's was the year where working on Python started. ~~It was t.~~ Soon after Von Rossum began working on it's application by 1989 at CWI which is in Neathavlands.

- The python programming language was succeded with ABC programming language, which has an interfacing with Amoeba OS and had the feauture of exception handling.

- The name python was taken actullay from a TV show 'Monty Python's Flying circus', as he was a very big fan of that TV show, and he also needed a small mysterious name hence he selected python.

- This language was finally released in the year 1991.

- Its main objective is to provide code realibility and advance developer productivity.

(30) Explain all the operators in Python?

(A) Arithmetic operators := These operators are generally used to perform mathematical operations.

Ex:- Addition, Sub, Multiplication, division, Modulus, etc.
$x+y$ $x-y$ $x*y$ x/y $x\%y$.

Assignment operators := Generally used to assign a value to a particular variable.

Ex:- $\underline{x=5}$.

Comparision Operators := These are used to compare to values.

Ex:- Equal, Not equal, Greater than, less than, etc.
$x==y$ $x!=y$ $x>y$ $x<y$

logical Operators := Generally used to combine condition statements,

Ex:-   AND, OR, NOT.

AND - both true
OR - atleast one of them is true
NOT-Reverses the result.

Bitwise operators :- These operators are used to compare binary numbers.

Ex:- AND($\&$), OR(|), XOR($\wedge$), NOT($\sim$), etc.

4Q) Explain the features of python?

(A) Following are the features:

(i) Easy to learn & use ÷ Python is very easy to use

(ii) Expressive language ÷ It is more understandable and readable.

(iii) Cross platform language ÷ It is a portable language it can be used in diff & multiple platforms.

(iv) Object oriented lang ÷ Python supports object oriented lang, concepts of classes and objects come into existence.

(v) Extensible ÷ The code is easy extendable by adding multiple features.

(vi) Integrated ÷ It can be easily integrated by C, C++ & Javer.

(5Q) Justify python is an interactive interpreted language?

(A) Python is interactive – You can actually sit at a Python prompt and interact with interpreter directly to write your ~~product~~ programs. Python is object oriented that encapsulates program with objects.