**Day – 1 Assignment – 1**

1. What is the difference between python 2.x and python 3.x?

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| Diff/Version | Python 2.x | Python 3.x |
| Print | Treated as statement.  Eg:-print “hello” | Treated as a function.  Eg:- print(“Hello”) |
| Input statement | X=raw\_input() | X=input() |
| Range statement | xrange() | range() |
| Error | Treated as statement.  Eg:-raise IOError, “file not found” | Treated as a function.  Eg:-raise IOError(“file not found”) |
| Error handling | except IOError, err: | except IOError as err: |
| next() | To iterate through a list or collection of data. | No more used as for loop can iterate through without next(). |
| Division(/) | Output is always same as type of operands. | Output is either float or double type. |

1. What do you understand by PVM?

**Parallel Virtual Machine** (**PVM**):- is a software tool for parallel networking of computers. It is designed to allow a network of heterogeneous Unix and/or Windows machines to be used as a single distributed parallel processor. Thus large computational problems can be solved more cost effectively by using the aggregate power and memory of many computers.

The individual computers may be shared-memory or local-memory multiprocessors, vector supercomputers, specialized graphics engines, or scalar workstations and PCs, that may be interconnected by a variety of networks, such as Ethernet or FDDI.

PVM consists of a run-time environment and library for message-passing, task and resource management, and fault notification. While PVM will not automatically make a commercial software package run faster, it *does* provide a powerful set of functions for manually parallelizing an existing source program, or for writing new parallel/distributed programs.