ASSIGNMENT-01

1. Discuss the steps of installation of NIC for windows.

Ans: NIC Installation Steps (Hardware Installation)

i. Wire the anti-static wristwrap.
ii. Open the computer casing and identify the part of NIC, that is expansion slot that is PCI or PCIE. We unclip the cover plate holder and remove it.
iii. Upon unboxing NIC, we find three different items that is installation guide and manual, diversity and NIC.
iv. We install NIC in the right expansion slot, clip back the cover, plate holder and close the casing.

(Software Installation)

v. After turning on the PC once, we check the network connection we find that the network cable unplug.
vi. Next we insert the NIC diversity and open device manager. We click the other devices option and right click on ethernet controller.
vii. Further we click on update driver software option and browse my computer for a location to install the driver software.
viii. Finally we click next and finish the installation process. Once we check the network adapter option in the device manager. We see that the NIC has appeared which means that device driver software is successfully installed.
ix. To test whether NIC is installed properly, we go to command prompt, ping 127.0:0.1. The receipt of reply with 0% packet loss completes its testing.

2. Discuss the different classes of IP.

Ans: There are five different classes of IP -

a. class A → | N/W ID | Host ID |

b. class B → | N/W ID | Host ID |

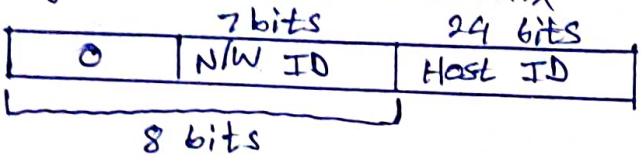
c. class C → | N/W ID | Host ID |

d. class D → | Multicast Add |

e. class E → | Reserved |

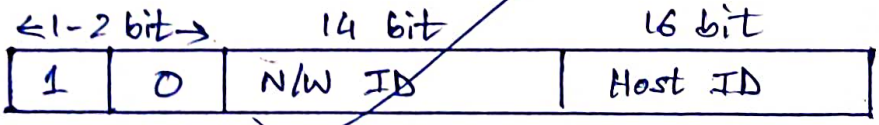
a. class A) Network which contains large number of hosts. Higher order bits of the 1st octate is set to 0. Remaining 7 bits will determine the network ID. Next 24 bit Host ID will determine the Host. Default subnet mask is 255.x.x.x.

Range: 1.x.x.x to 126.x.x.x



b. class B) Where network ID is medium to large. Higher order bit of each octate is set to 10. 16 bit is Host ID. 14 bits are network. Default subnet mask 225.225.x.x. It is used in medium to large size network.

Range: 128.0.x.x to 191.255.x.x



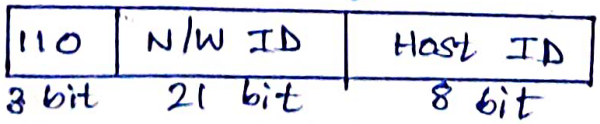
c. class c) Used for small size network. Higher order bits of 1st octate set to 110.

Network ID – 21 bit

Host ID — 8 bit

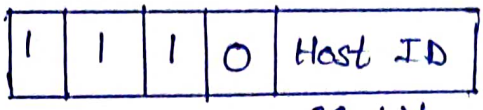
Default subnet mask – 255.255.255.x

Range of ID Address — 192.0.0.x to 223.255.255.x



d. class D) It is reserved for multicasting. Higer order bits of 1st octate set to 1110. This has not any mask subnet.

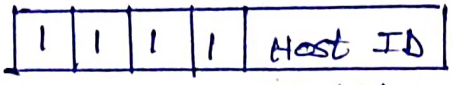
Range : 224.0.0.0 to 239.255.256.255



28 bit

e. class E) Reserved for experiments and searches are similar to class D (Higher order bits of 1st octate is 1110). It has no subnet masks.

Range : 240.0.0.0 to 255.255.255.254



28 bit

28/02/23