Experiment - 03

1) State the purpose of Network Interface card

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Network Interface card (NIC) is a hardware component that is present on the computer. It is used to connect different networking devices such as computers & servers to share data over the connected network. NIC is important for us to establish a wired or wireless connection over the network. It is also known as network adapter or ethernet card.

2) where Network Interface card is placed in computers?

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Network Interface cards are plugged directly into motherboard either located near the USB ports on back or plugged into PCIe port.

3) state different parameters on the basis of which NIC classified

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The NIC can be classified based on various parameter such as

1) connection Medium :-
 — Wired NIC :- These are used for wired networks typically to connect Ethernet
 — Wireless NIC :- These are used for wireless networks & connecting using wifi, bluetooth etc

2) Data transfer speed :- ·10 Mbps ·100mbps ·1Gbps ·16Gbg

3) Bus type :- ·USB ·PCI ·PCIe ·ISA

4) Duplexing Mode :-
 — Half duplex :- NIC can either send or receive data at particular time
 — Full duplex :- NIC can send & receive data simultaneously

5) Number of Ports :-
 · Single port NICs · Multiple port NICs

4) which types of connector used by interface card for cabling

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Common interfaces mainly include Ethernet RJ-45 interface, thin coaxial cable BNC interface & thick coaxial electrical AUI interface, FDDI interface etc.

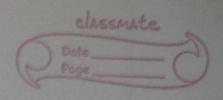5) How to check whether whatever network Interface card is successfully installed or not

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Go to Device Manager then network adapter, Network adopter / Ethernet card & right click & select properties in general tab under device status see it it's working.

6) What is difference between MAC adress & IP adress

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The main difference between MAC & IP adress is that Address is used to ensure the physical adress of the computer. It uniquely identifies the devices ona network. While IP adresses are used to uniquely identifies the connection of the network with that device takes part in a network

7) A computer MAC address: 02:45:20:65.02:1E what the first three & remaining three blocks

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The first 3 blocks or 6 digits of MAC adress identify the manufacturer called OUI (organizational Unique Identifier) The other 6 digits represent the network interface controller assgined by manufactures

8) Is it possible to replace NIC card? If yes then how?

→ Yes it is possible to replace NIC card in system depending upon type of system or NIC.
Firstly turn off the system to remove the power cables. Remove the NIC carefully, install the new NIC. Recconnect the power cables. Install the necessary drivers for the NIC which CD/DVD coming with NIC & check if NIC is installed or not