



Mount Abu Public School

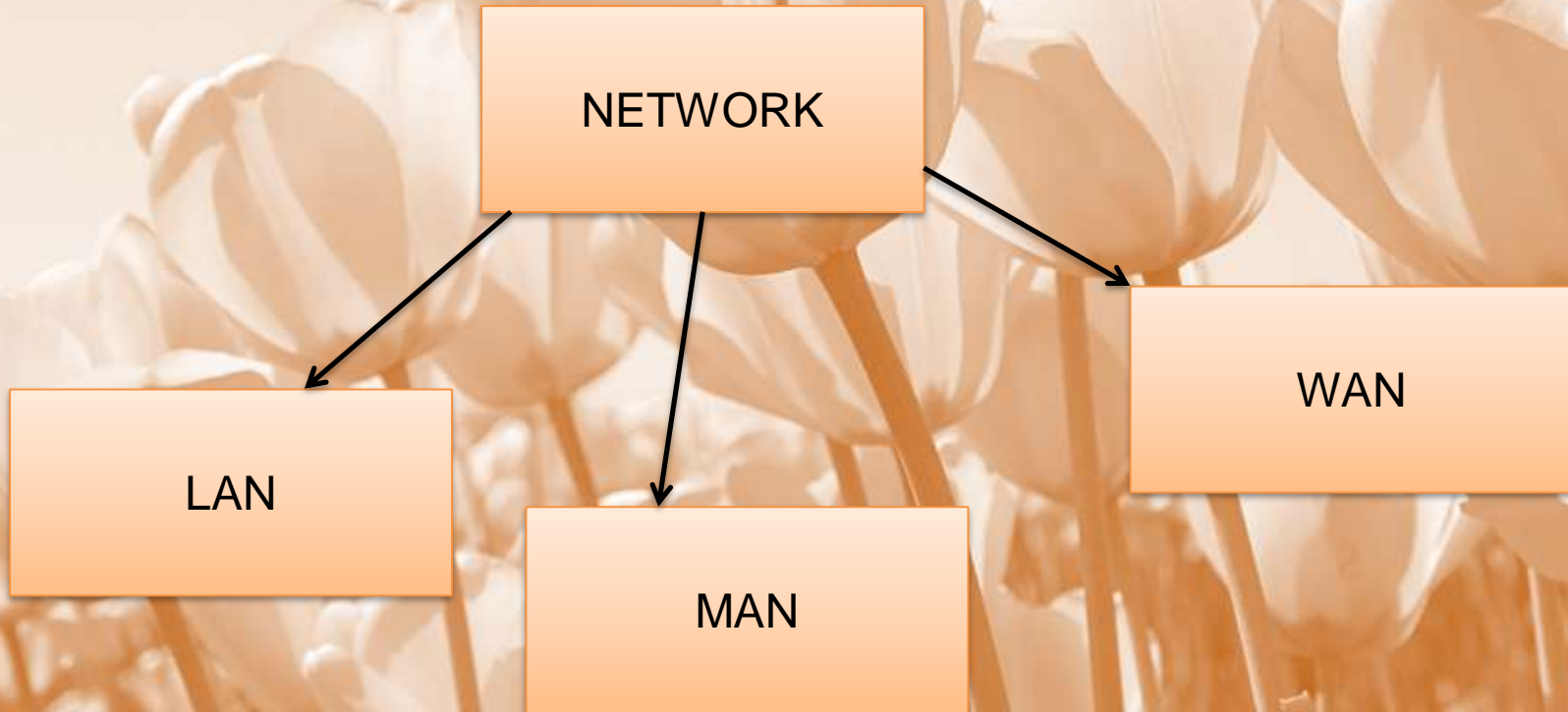
H-Block, Sector-18, Rohini, New Delhi-110085 India

COMPUTER NETWORK

NETWORKING

- AN INTERCONNECTION OF A GROUP OF COMPUTERS
- COMPUTER ARE LINKED TOGETHER FOR THE PURPOSE OF SHARING DATA

TYPES OF NETWORK



LAN

- FULL FORM IS LOCAL AREA NETWORK
- CONNECTS DEVICES WITHIN A SHORT AREA LIKE OFFICES, HOMES, INTERNET CAFÉ, ETC.
- USES TCP/IP NETWORK PROTOCOL FOR COMMUNICATION
- CAN BE CONTROLLED AND OPERATED BY A SINGLE PERSON OR AN ORGANISATION.



MAN

- MAN STANDS FOR METROPOLITAN AREA NETWORK
- COVERS A LARGER SCALE LIKE A CITY



HOW MAN AND LAN ARE CONNECTED



WAN

- WAN STANDS FOR WIDE AREA NETWORK
- COVERS LARGE DISTANCE FOR COMMUNICATION BETWEEN COMPUTERS
- INTERNET IS THE BIGGEST EXAMPLE OF WIDE AREA NETWORK



NETWORKING COMPONENTS

- ROUTER
- HUB
- BRIDGE
- GATEWAY

ROUTER

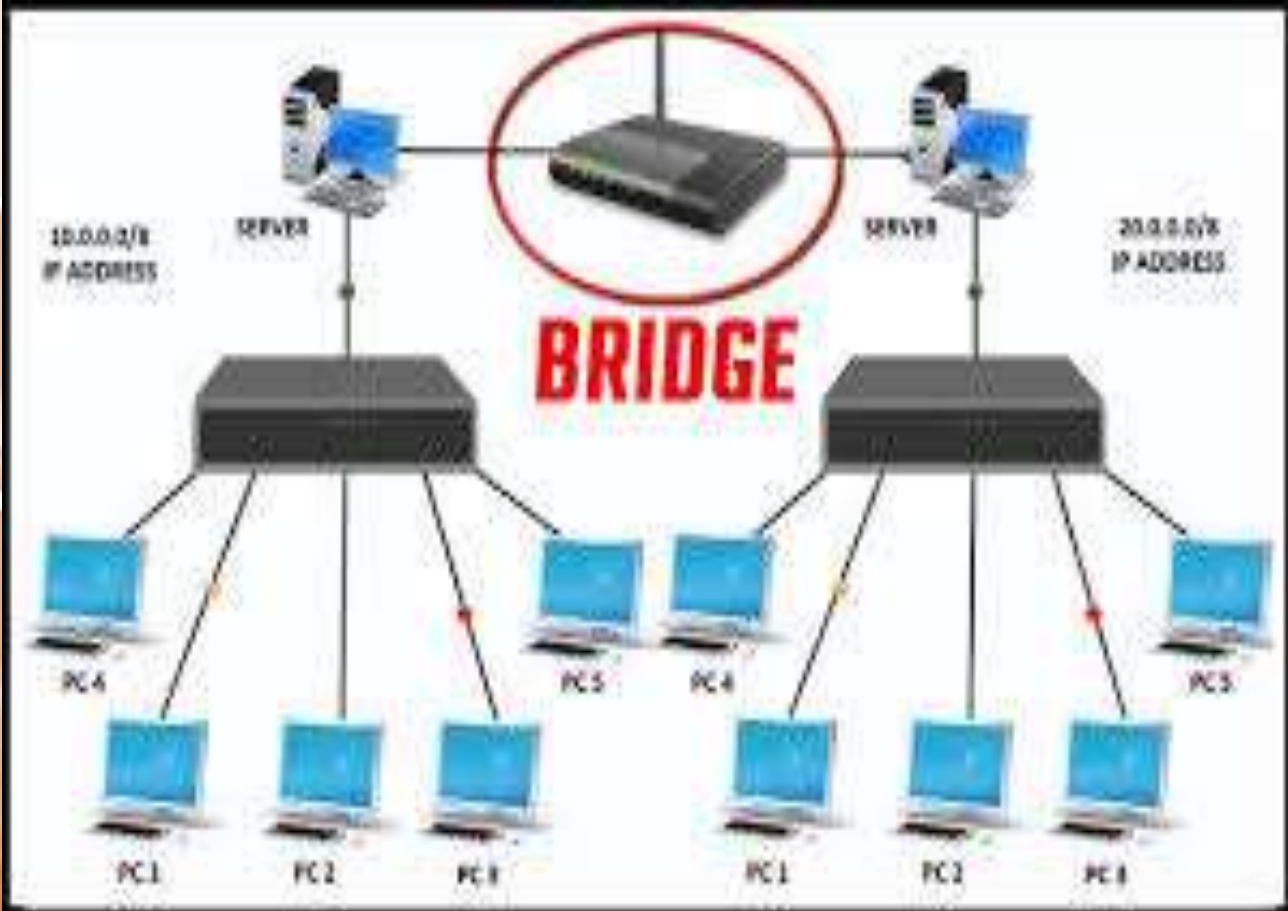
- IS SPECIALISED FOR DETERMINING THE NEXT NETWORKING POINT WHERE THE DATA PACKET IS FORWARDED TOWARDS ITS DESTINATION



BRIDGE

- IT IS USED FOR CONNECTION OF DATA LINK LAYER AND MULTIPLE NETWORK SEGMENTS.



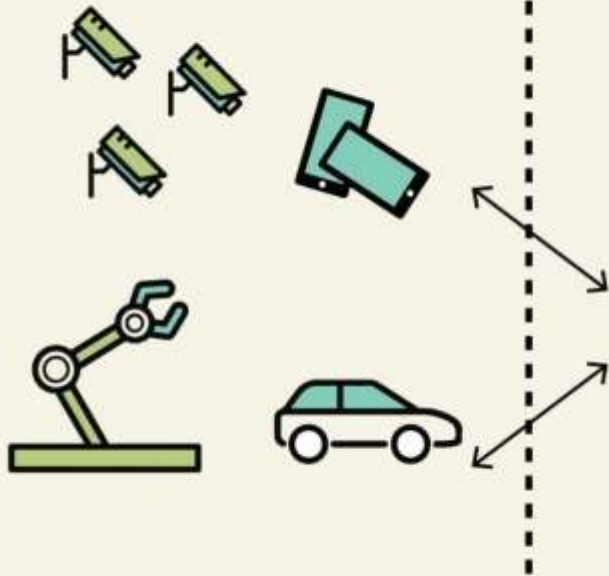


GATEWAY

- IT IS PLACED AT THE NETWORK NODE.
- IT ACTS AS AN INTERFACE WITH OTHER NETWORK THAT USES PROTOCOLS



IoT Devices

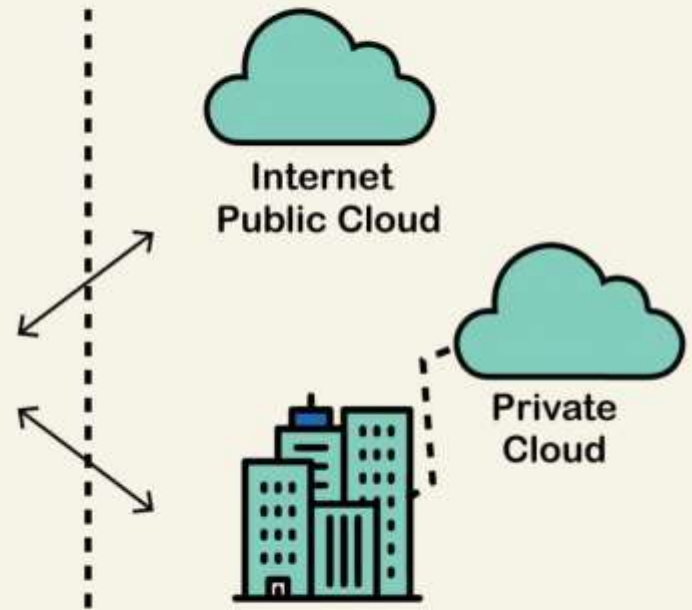


Bluetooth , Zigbee, LTE-M, etc

IoT Gateway



Data Systems



Ethernet or Fiber Optics

HUB

- IT IS A DEVICE FOR CONNECTING MULTIPLE TWISTED PAIR OF FIBRE OPTIC ETHERNET DEVICES TOGETHER AND MAAKING THEM ACT AS A SINGLE NETWORK SEGMENT.





COMMUNICATION CABLE



CONNECTION IN HUB

TWISTED PAIR CABLE



FIBRE OPTIC CABLE



SETTING A NETWORK CONNECTION

- CLICK ON START BUTTON
- CLICK ON CONTROL PANEL



CONTROL
PANEL

START BUTTON

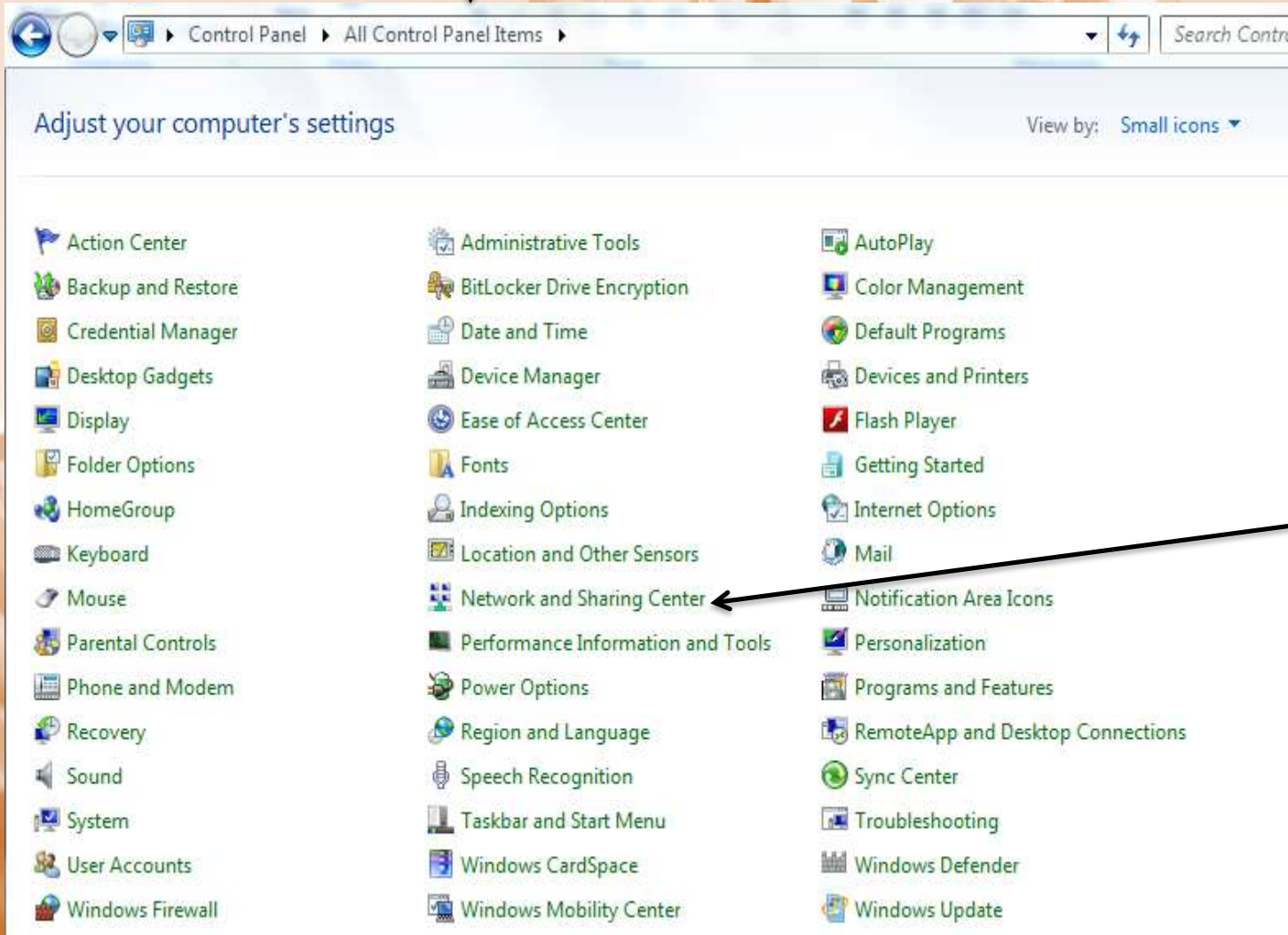
**CONTROL PANEL
WINDOW**

**CLICK ON
CATEGORY**



**A MENU
WILL OPEN,
CLICK ON
SMALL ICON**

THIS IS SMALL ICON WINDOW



CLICK ON
NETWORK
AND
SHARING
CENTER

NETWORK SHARING WINDOW

Control Panel > All Control Panel Items > Network and Sharing Center

View your basic network information and set up connections

ABC-PC (This computer) GNXS-26F240 Internet

View your active networks

GNXS-26F240 Public network

Access type: Internet

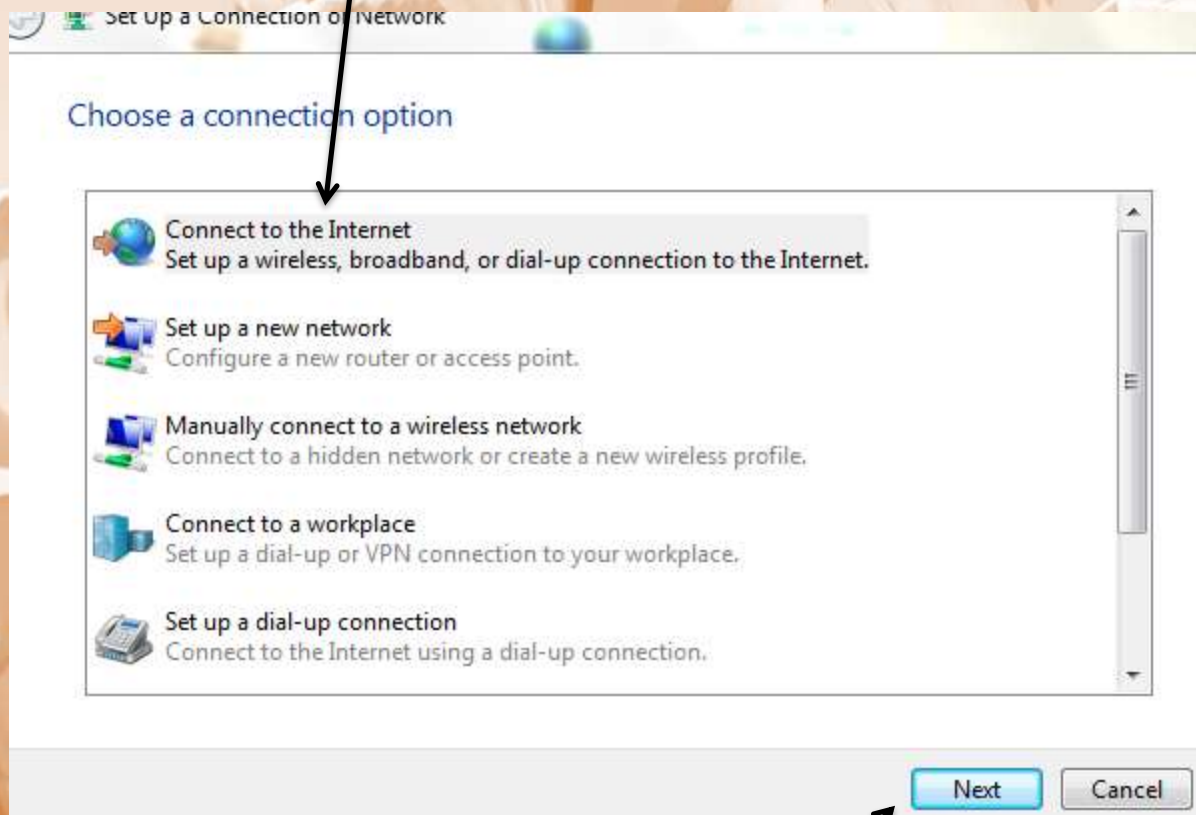
Connections: Wireless Network Connection (GNXS-26F240)

Change your networking settings

- Set up a new connection or network
Set up a wireless, broadband, dial-up, ad hoc, or VPN connection; or set up a router or access point.
- Connect to a network
Connect or reconnect to a wireless, wired, dial-up, or VPN network connection.
- Choose homegroup and sharing options
Access files and printers located on other network computers, or change sharing settings.
- Troubleshoot problems
Diagnose and repair network problems, or get troubleshooting information.

CLICK ON SETUP NEW CONNECTION

**SELECT
CONNECT TO
INTERNET**



**CLICK ON NEXT
BUTTON**

CHOOSE
THE
OPTION



ENTER
USERNAME
AND
PASSWORD



CLICK ON
CONNECT



CONNECTION
IS CREATED



ASSIGNMENT

1. What is network?
2. What is a hub?
3. Explain the various types of network.
4. Difference between LAN and MAN.
5. What options does Setup Connection or Network dialog box show?
6. Explain the various computer networking components.



7. Write one line for each of the following:

i. Router

ii. Gateway

iii. Hub

iv. Bridge networking device