UNIT -2 NETWORKING AND INTERNET

Points to Remember

- ❖ A communication system comprise of four components: sender, receiver, messages, and channel.

- ❖ A collection of interconnected nodes (electronic devices such as computers, printers, fax machines, and telephones) which communicate by means of some channel form Computer network. Computer networks can be used as means of resource sharing and communication.

- ❖ A transmission medium refers to the channel of transmission through which data can be transmitted from one node to another. A transmission medium can be categorized as guided and unguided medium.

- ❖ Guided medium refers to the physical conductor such as twisted pair, coaxial cable, and fibre optics. The unguided medium uses electro-magnetic waves that do not require a physical conductor, for example, infrared, radio, microwave, and satellite links.

- ❖ The arrangement (also called layout) of nodes in a network is called network topology.

- ❖ In bus topology, there is a long cable, called backbone cable (or simply backbone), that connects various nodes through connector called tap.

- ❖ In ring topology, all the devices are attached through a cable in the form of ring.

- ❖ In star topology, all the devices are connected to the central controller called hub.

- ❖ in mesh topology, all nodes are connected with every other node in the network.

- ❖ Tree topology is a combination of star and bus topology. Backbone cable in a but topology acts like the stem of the tree, and star networks (and even individual nodes) are connected to the main backbone cable like the branches of tree.

- ❖ LAN stands for Local Area Network. They are private networks and can span a radius of up to 1Km. They are generally established within a building or campus.

- ❖ MAN stands for Metropolitan Area Network. It may be owned by a single organization or by many individuals or organizations. These networks are used to establish link within a city, and span an area of radius up to 50 Km.

- ❖ WAN stands for Wide Area Network. Typically a WAN spans a segment of about 1000 Km. They establish link within a country or continent.

- ❖ A repeater is used to restore the input signal to its original form, so that it can travel

a larger distance. It is also known as digital regenerator.

❖ A hub comprises several input/output (I/O) ports, each of which connects to a single cable segment.

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