

## PL3 Practical No 1.

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Batch - TG

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To describe components of a network.

★ Problem Statement :-

Φ Study & describe the following concepts in your words.

1) Client -

A client is a computer or a program that, as part of its operation, relies on sending a request to another program or a computer hardware or software that access a service made available by a server.

In digital world a client is a computer (host) that is capable of receiving information or using a particular service from service providers (servers).

2) Server -

A server is a computer program or device that provides a service to another computer program & its user, also known as the client.

In the client/server programming model, a server program awaits & fulfills requests from client programs, which might be running in the same or other computer.

A term server refers to a physical machine, a virtual machine or to software that is performing server services.

3) Communication -

Communication is a process in which 2 or more computers or devices transfer data, instructions and information.

For successful communications, you need -

a sending device that initiates an instruction, a communication device that connects the sending device to the channel, a communications channel on which the information travels, a device which connects channel to receiving device & a receiving device that accepts the transmission of data.

#### 4) Protocols -

A protocol is a set of rules for formatting & processing data. Also protocol is a set of rules or procedures for transmitting data between electronic devices, such as computers.

Protocols are established by international or industry wide organizations. The most important computer protocol is OSI that is Open Systems Interconnection, a set of guidelines for implementing networking communications between computers.

#### 5) Ports -

A port is a virtual point where network connections start & end.

Ports are software-based & managed by computer's operating system.

Each port is associated with a specific process or service.

Ports are standardized across all network-connected devices, with each port assigned a number.

Port numbers allow targeting of specific services or applications within those devices.

#### 6) Network -

A network consists of 2 or more computers that are linked in order to share resources (such as printers & CDs), exchange files, or allow electronic communications.

The computers on a network may be linked through cables, telephone lines, radio waves, satellites etc.

Common types of networks are LAN, WAN and MAN.