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Question **1:-** (A)

Answer: **Importance of system software:-**

System software is set of one or more programs that control the operation or extend the processing ability of a computer system.

🡪Its main importance is to run the hardware parts of the computer and the other application software.

🡪Also acts as interface between hardware and user applications because hardware devices or machines and humans speak in different languages.

🡪So, system software converts all human instructions into machine understandable instructions to perform.

🡪System software handling the input and output, and also managing the file system.

1. **How System Software Helps Users:-**

System software helps the users because when system software is not available in the machine it cannot operate the instructions. We cannot able to do any more works in that machine or cannot proceed the instructions. System software helps to operate the machine system to processing the instructions.

🡪System software cannot ask to the user during save the file or program in which address, that can also help the user to easy the work.

(B)

Answer: **Benefits of open source software:-**

🡪Open source software’s are freely available on internet in which users are allowed to read, modified and to share the software.

🡪Open source software is free of cost anyone can buy and wants to changes in this type of software.

🡪The main benefit of the open source software is to access the source code which can use everyone.

Question- **2**: (A):-

Answer: **Categories of transmission speed:-**

There are three categories of transmission speed

1. Narrow Band
2. Voice Band
3. Broad Band
4. **Narrow band: -** Narrow band or sub-voice grade channels have speed in range of 45 to 300 baud. Narrow band are used to handle low data volumes and are required for low speed devices. They are used mainly for low speed terminal (Devices, computers) and telegraph lines.
5. **Voice band:-** Voice Band channel have mainly speed up to 9600 baud. Their major application is in ordinary telephone voice communication. Voice channel are also used for data transmission from also slow I/O devices to CPU or vice versa.
6. **Broad band:**- Broad band used for transmission of large volumes of data at high speed. They have speed 1 million baud or more. It used for high speed for data transmission to several different devices simultaneously.

**Question: 2**

**(B) :-**

**Answer: Difference between Optical and Magnetic storage:-**

**Optical storage**

1. Optical storage stores data as pits and land by using laser beam for reading writing data (1-0).

2. Optical storage has less storage capacity.

3. Use laser to read and write the data.

4. Does not affect.

5. Not easy to modify the data.

**Magnetic Storage**

🡪Magnetic storage stores data in magnetic form as magnetized and non-magnetized spots.(1-0).

🡪It has high storage capacity.

🡪Does not used laser.

🡪In magnetic storage data is affected by magnetic field. 🡪Easy to modify the Data

**Q-**3:-

**Ans:** **Telnet:** (Terminal Network)

According on a remote computer where the initiated is treated as local to the remote computer.

🡪Allows were to login to remote computer.

Client Terminal

Shell/Mud

**N V T**

TelNet

TelNet

Client Server

🡪Based on concept of NVT(Network Virtual Terminal).

🡪NVT is an imaginary device represents a common terminal.

🡪With the use of NVT the client and server do not have to get information about each other’s terminal characteristics.

🡪Client input data through keyboard and printer

🡪Client input data through keyboard and printer.

🡪Client input data through keyboard and it sent to the server through the TelNet connection.

🡪TelNet uses one TCP connection, as it is full duplex and identified by pair of parts.

🡪A server may have more than one TelNet connections simultaneously.

🡪Once connection is established, the initiators need to enter a login name and password.

* **FTP (File Transfer Protocol):-**

🡪Application protocol

🡪Transfer file from one computer to another

🡪Independent of OS and file structures

Transmission control protocol (TCP) connections are required

1. **Control connection:-**

Establish from user to server port. FTP commands and replies are exchanged via control connection. Used for commands, identification, Passwords i-e exchanged between the client and server.

1. **Data connection:**-

It is established upon the request from the user for some sort of file operation.

**Steps:-**

**🡪**User choses an port number for its ends for operation.

**🡪**Then issue a positive open request to the server from this port.

**🡪**When the server receives the port number through control connection, the server issues an active open to that same port.

**🡪** The user data transfer process then waits for the server to initiate and perform file operation.

* **Short review of software on TelNet(**Terminal Network):-

It is remote access protocol. Protocol for creating a connection with a remote machine over TCP/IP Network

🡪TelNet client or users connect through the user name, password by the TelNet server to access.

🡪To access remote machine through the internet

🡪TelNet clients are available for all major operating system.

Mac OS X, Windows and Linux

Used by commands.

* **Short** **review of software on FTP (**File Transfer Protocol) **:-**

FTP (File Transfer protocol) is used to exchange files from one host to another connected over the internet.

-🡪With the help of FTP server you can upload or download file.

🡪FTP is a client-server based protocol.

Two Types of connection made during FTP

1. **Control connection:-**

Control connection used to control the connection between client and server.

1. **Data connection:-**

Provide the data to control the forward file.

**-: THE END:-**

**🡪Hand writing pictures:**















