01). What is protocol? (a set of rules or procedures for transmitting data between 2 electronic device)
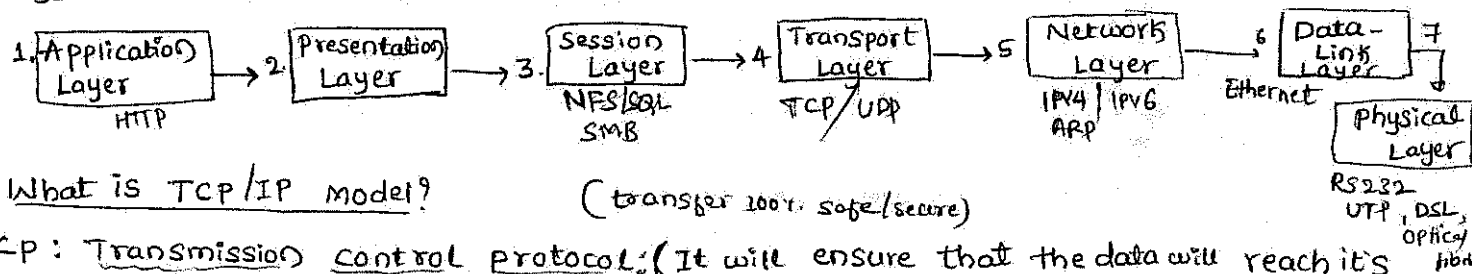→ The Rules that are set up by people how a particular data is being send.
Ex: TCP, IP, UDP....

02). What is OSI Model?
→ The Open Systems Interconnections (OSI) model describes (7)Seven layers that computer System use to communicate over a network.

1. Application Layer — HTTP → 2. Presentation Layer → 3. Session Layer NFS/SQL SMB → 4. Transport Layer TCP/UDP → 5. Network Layer IPV4 IPv6 ARP → 6. Data-Link Layer Ethernet → 7. Physical Layer RS232 UTP, DSL, optical fibre

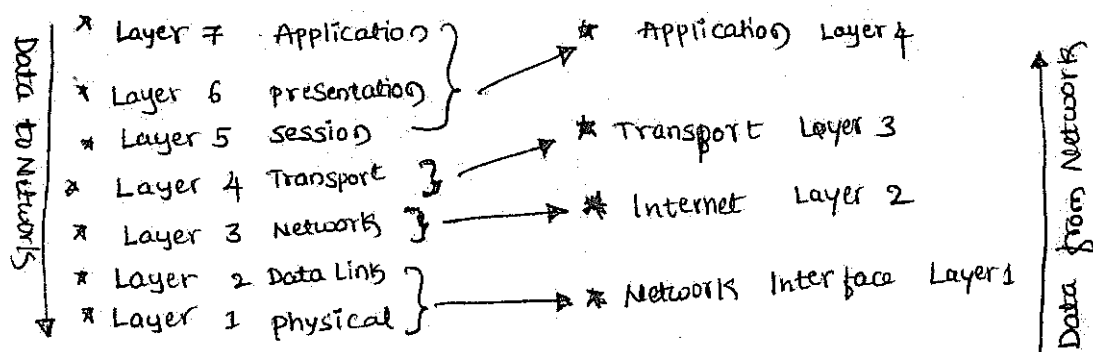**03) What is TCP/IP Model?** (transfer 100% safe/secure)
→ TCP: Transmission control protocol: (It will ensure that the data will reach it's destination and not get corrupted on the way).

UDP: User Datagram protocol: (when you don't care about 100% data) (video conference)

HTTP: Hyper text transfer protocol: (This is being used by web browser).
The data being transfered between Clients and servers.

IP: Internet protocol : set of rules, for routing and addressing packets of data so that they can travel across networks and arrive at the correct destination.

04)

OSI Model   V/S   TCP/IP Model

Data to Networks ↓
* Layer 7 Application ⎫
* Layer 6 presentation ⎬ → ✶ Application Layer 4
* Layer 5 session ⎭
* Layer 4 Transport ⎫ → ✶ Transport Layer 3
* Layer 3 Network ⎬ → ✶ Internet Layer 2
* Layer 2 Data Link ⎫
* Layer 1 physical ⎬ → ✶ Network Interface Layer 1

Data from Network ↑

05) What is http and https and SSL?
→ HTTP: Hyper text transfer protocol (This is being used by web browser)
* The data that being transfered b/w clients and server.

HTTPS: Hyper text transfer protocol Secure (It is an extension of HTTP, it is used for secure communication over a computer network. & widely used on the Internet.

SSL : Secure Socket Layer : is a protocol for establishing secure links b/w networked computers. It's current iteration called TLS (Transport Layer Security).

06) What is encryption & Decryption?
→ encryption: Process of translating plain text data into something that appears to be random & meaningless (Ciphertext)
Decryption: process of converting (Chiphertext)/(encryption) back to plain text.

07) What is DNS? → "Domain Name System → (turn domain names into IP address, which browse)

Facebook.com → 192.62.1.2
08) Router → A router is a networking device that forwards data packets b/w computer network. →Router will decide who requested it donbynat provides
09) ISP: Internet Service provider → provides internet connection & services to individual & organisation.