

Computer Networks

Data Communication — is the process of transferring digital data between two or more computers with the help of Networking.

Networking — the exchange of information or services among individuals, groups or institutions.

Computer Network — can be defined as a group of computers and other peripheral devices that are linked together for the purpose of sharing data and hardware resources.

Node / workstations — Each computer in a network is called a Node.

Advantages of Computer Networks.

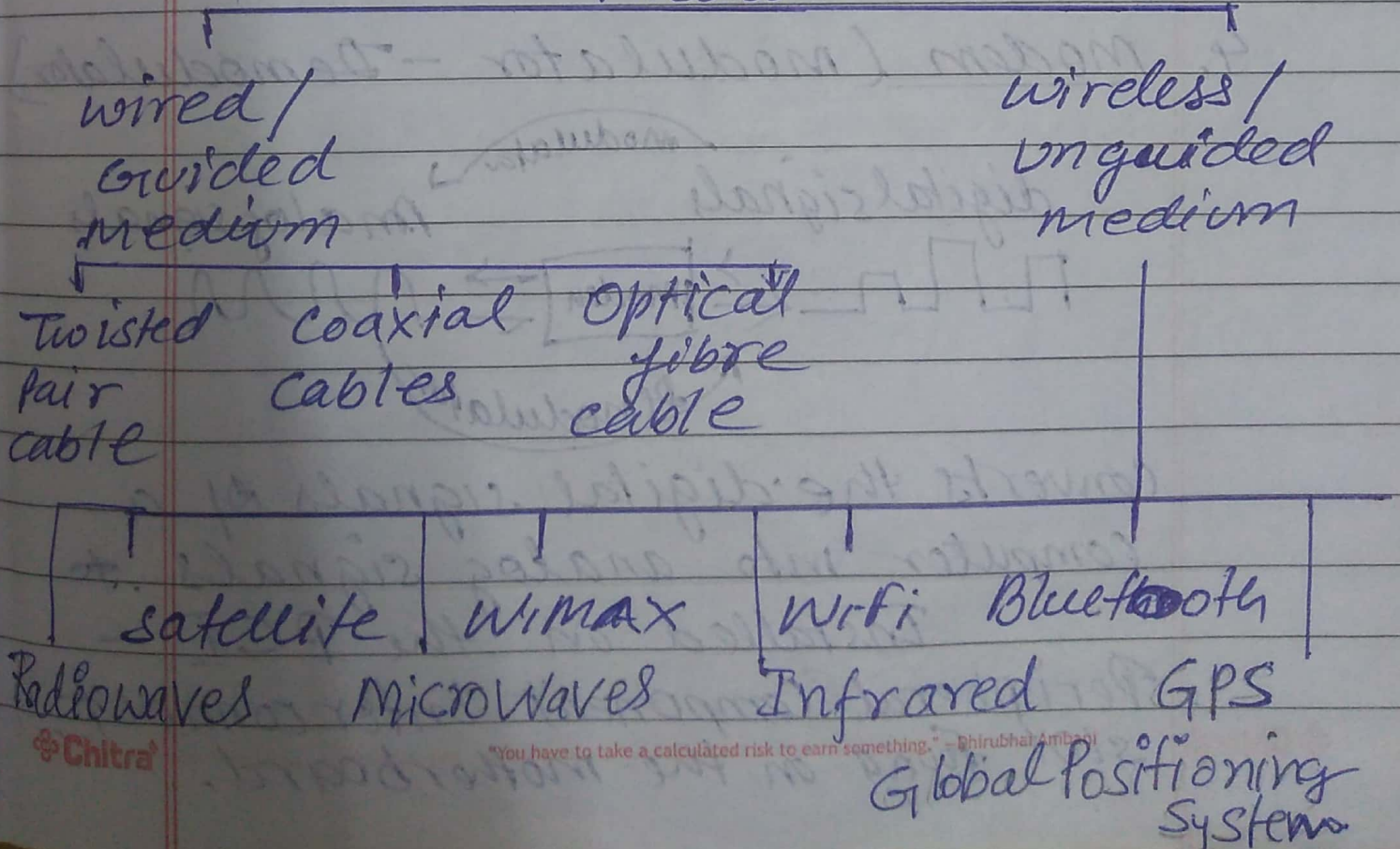
1. Information and file sharing.
2. Convenient resource sharing.

3. Easy communication.
4. Storage capacity.
5. Reduce cost.
6. Reduce Redundancy - Data redundancy means duplication of data at many places.
A computer network helps in reducing the data redundancy by providing a central server, to store the data.
7. Easy to take backup - One can set the server to take regular backups of data automatically.
8. Reduce Data Inconsistency - Data inconsistency happens when multiple mismatching copies of a single file are stored at different computers. To reduce this "discrepancy of data and bring in more efficiency, a file should be deleted, modified or updated at a single point only.
9. Increase security - only the authorised users are allowed to access the hardware and software resources.

Disadvantages of Networking,

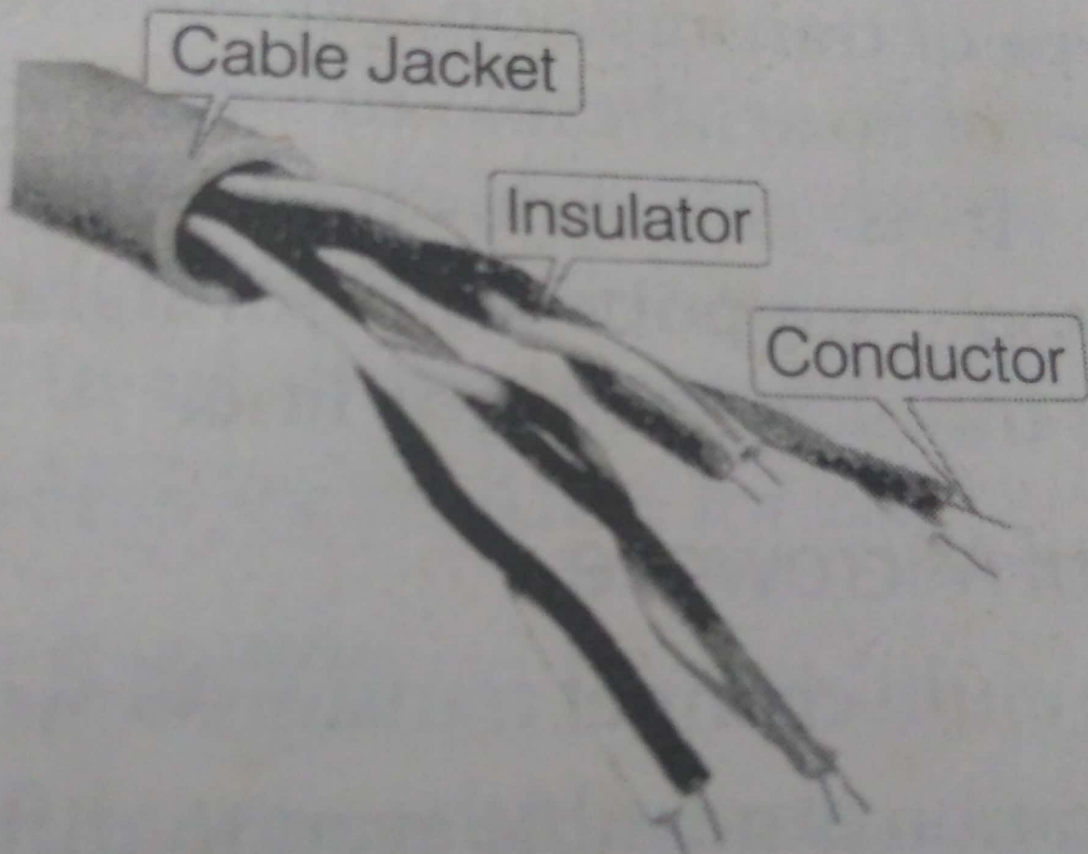
1. Additional cost of Networking Equipments.
2. Management of Large Network.
Network administrator requires expertise and special training to operate and supervise a network.
3. server breakdown -
4. security Issues -

Communication Medium



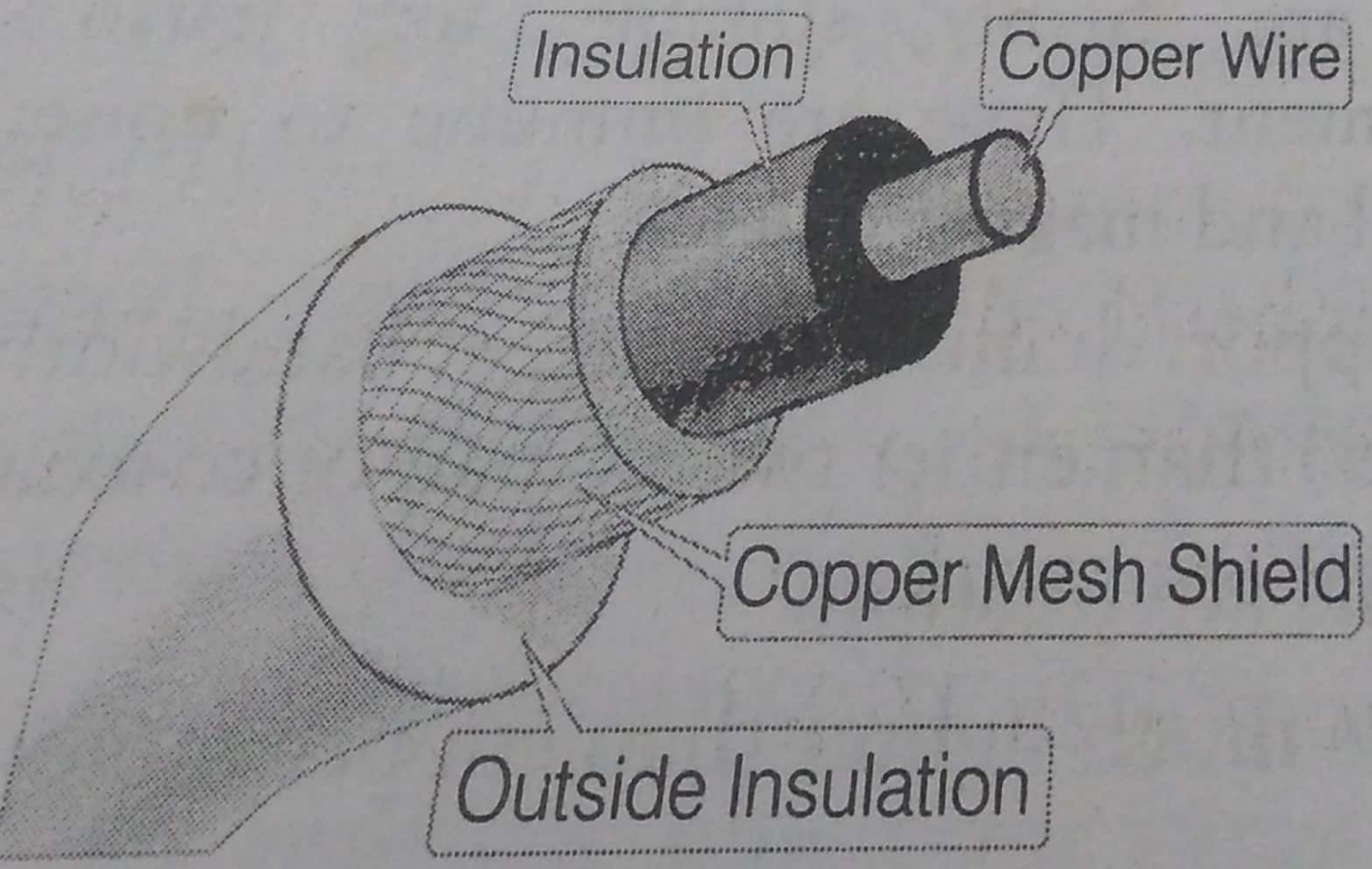
"You have to take a calculated risk to earn something." - Bhirubhai Ambani

Copper as a conductor



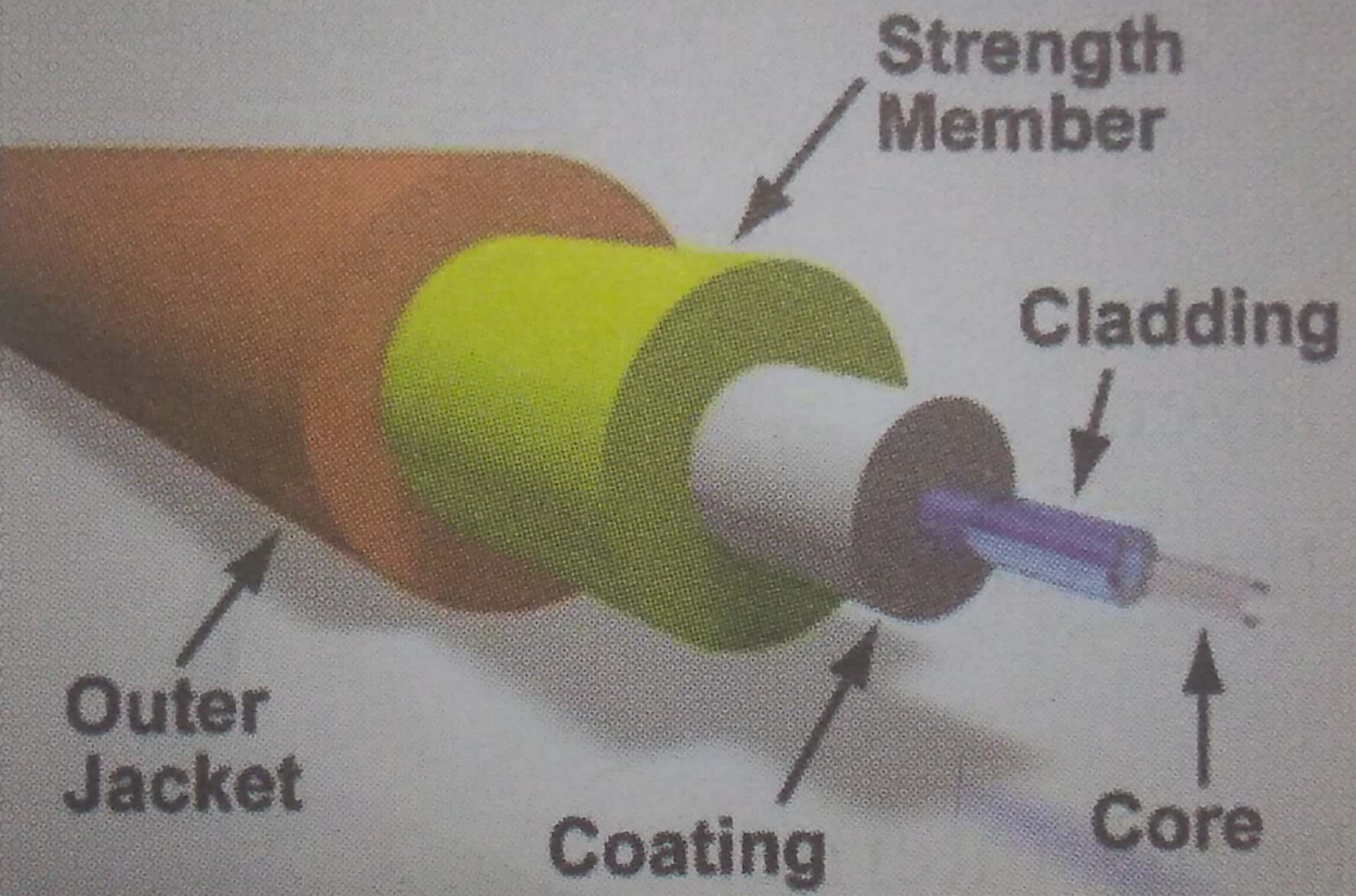
Twisted pair cable

C JACKET.



Co-axial cable

Co-axial Cable



Fibre Optic Cable

Write full form of the following

1. ARPANET - Advanced Research Projects Agency Network.
2. NOS -
3. NIC -
4. MAC -
5. Modem - Modulator Demodulator
6. Wi-Fi -
7. PAN -
8. LAN -
9. MAN -
10. WAN -
11. PCI - Peripheral Component Interconnect
12. GPS - Global Positioning System.