"Multiple Access Techniques"

=> Defination:-

Multiple Access is the use of multiplexing techniques to provide communication service to multiple users over a single channel. It allows for many users at one time by sharing a finite amount of spectrum.

- **Multiplexing:-**

Multiplexing is the process in which multiple data streams, coming from different sources, are combined and transmitted over a single data channel or data stream.

- **Demultiplexing:-**

Demultiplexing performs the reverse process of multiplexing and routes the separed signals to their corresponding receivers or destination.

=> Types of Multiple Access:-

1) FDMA 2) TDMA 3) CDMA

- **FDMA:-**

=> FDMA is stands for "Frequency division multiple access".

=> FDMA is the division of the frequency band allocated for wireless cellular telephone

communication into 30 channels each of which can carry a voice conversation or which digital service, carry digital data.
→ FDMA is also used in the TACS "total access communication system".

- **TDMA:-**
→ TDMA is stands for "Time division multiple Access".
→ TDMA is a channel access method for shared medium networks.
→ It allows several users to share the same frequency channel by dividing the signal into different time slots.
→ The users transmit in rapid succession, one after the other, each using its own time slot.

- **CDMA:-**
→ CDMA is stands for "Code division Multiple Access".
→ CDMA is a channel access method used by various radio communication Technologies.
→ CDMA allows several users to share a band of frequencies without undue ~~interfate~~ interference between the users.
→ It is used as the access method in many mobile phone standards.

Remaining Topic :-

-> Circuit Switching

Def , Adv/disadv , Application

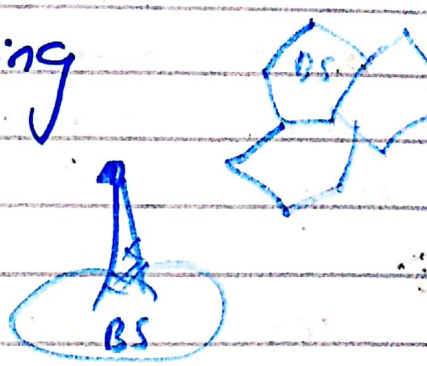
-> Packet Switching

Def , Adv/disadv , Application

• Types of Packet Switching

① Virtual Circuit

② DataGram.



-> Message Switching

Def , adv/disadv , application

(on slides)