2.8 CELL PHONE RECEPTION:

One of the important applications of electromagnetic spectrum is cell phone communication. The communication from one cell to another phone is done through radio waves.

Transmission and reception unit:

Cell phone is a two way communicating radio, consisting of a radio wave transmitter and a radio wave receiver. Cell phones contain at least one radio antenna in order to transmit and receive radio signals.

When an antenna converts an electric signal into radio waves, it acts as a transmitter and when it converts the radio waves into an electric signal, it then acts as a receiver.

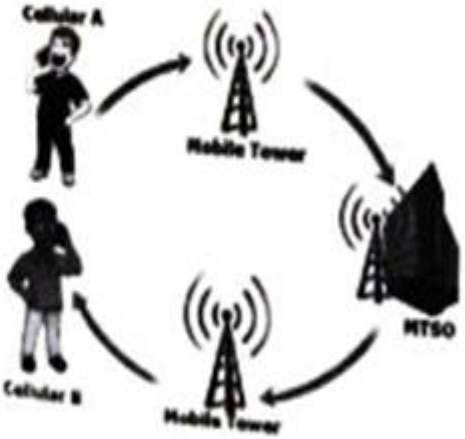

Fig. 2.15

Reception mechanism:

When a call is made on the cell phone, it converts input voice into an electrical signal, which is transmitted through radio waves to the nearest mobile tower.

Radio waves transport digitized voice or data in the form of oscillating electric and magnetic fields. Cell phones transmit radio waves in all directions and it carries the information and travel with the speed of light in air.

The network of mobile towers then relays the radio waves to destination tower through Mobile Telephone Switching Office (MTSO) and in turn to the other cell phone, there in the electrical signal is converted back to sound again.

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD

ROHINI COLLEGE OF ENGINEERING AND TECHNOLOGY
PALKULAM, KANYAKUMARI
OBSERVE OPTIMIZE OUTSPREAD