

22533

24225

3 Hours / 70 Marks

Seat No. 

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- Instructions* – (1) All Questions are *Compulsory*.  
(2) Answer each next main Question on a new page.  
(3) Illustrate your answers with neat sketches wherever necessary.  
(4) Figures to the right indicate full marks.  
(5) Assume suitable data, if necessary.  
(6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

1. Attempt any FIVE of the following : 10
- a) State features of AMPS.
  - b) Define –
    - i) Mobile station
    - ii) Base Station
  - c) Define frequency reuse.
  - d) List two features of 4G LTE.
  - e) State the spectrum requirement of IMT2000.
  - f) State any two features of Bluetooth.
  - g) State two application of MANET.

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- 2. Attempt any THREE of the following :** **12**
- a) State any four features of CDMA2000 radio standard.
  - b) State type of interference in cellular system, explain any one in detail.
  - c) Compare IS 95 with GSM (Any four point)
  - d) Explain microcell zone concept with diagram.
- 3. Attempt any THREE of the following :** **12**
- a) Explain authentication process in GSM with suitable diagram.
  - b) State the vision of IMT2000 global standard.
  - c) Explain the architecture of bluetooth technology with diagram.
  - d) State the features of UMTS and give UMTS air interface specification.
- 4. Attempt any THREE of the following :** **12**
- a) Draw the architecture of IS-95 system and state the function of any two blocks.
  - b) State the features of 4.5G and 5G.
  - c) Write the concept of Ad-hoc mobile communication for 4G.
  - d) Describe call making procedure from mobile handset to landline phone unit with block diagram.
  - e) Draw SS7 protocol architecture with labeled diagram and state the services offered by SS7.
- 5. Attempt any TWO of the following :** **12**
- a) Draw labeled block diagram of cordless telephone system and explain its operation.
  - b) What is handoff? List the type of handoff in cellular system, explain any one with suitable example.
  - c) Draw the block diagram of GSM architecture and explain base station subsystem and network subsystem.

6. Attempt any TWO of the following :

- Describe with relevant sketch the architecture of UMTS network.
- Give the classification of RFID tags and give the applications of RFID.
- Identify the block diagram and explain the block A and B in Fig. No. 1 and state function of both.

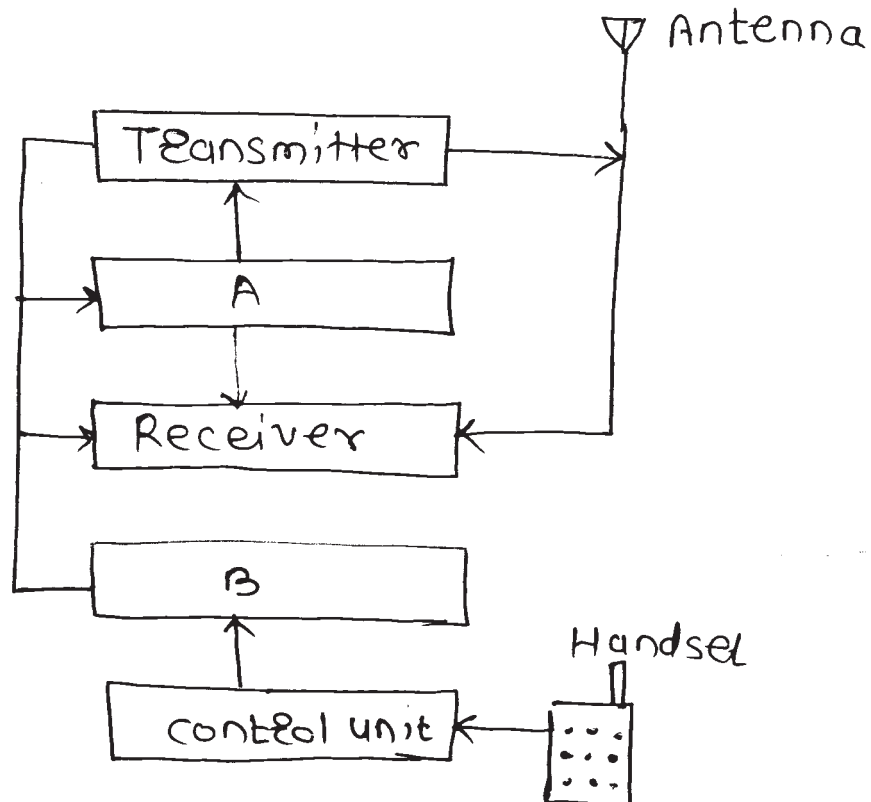


Fig. No. 1