

22533

12223

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) Use of Non-programmable Electronic Pocket Calculator is permissible.  
(7) 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) List the wireless network generation with its examples.
  - b) List any four types of Handoff strategies.
  - c) State the four Advantages of CDMA 2000 over 3G-GSM.
  - d) State the four Applications of MANET.
  - e) Draw the Architecture of Bluetooth technology.
  - f) Explain Mobile Assisted Handoff.
  - g) Describe the security procedure for W-CDMA.

P.T.O.

2. Attempt any THREE of the following :

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- a) Define the following terms
  - i) Cell
  - ii) Mobile Switching center
  - iii) Cluster
  - iv) Base Station
- b) MANET is also known as Infrastructure Less network Justify.
- c) Explain mobile originated call procedure with the help of diagram.
- d) 4G technology has better voice clarity then 3G technology.

3. Attempt any THREE of the following :

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- a) Explain the block diagram of WCDMA with the help of diagram.
- b) Sketch the block diagram of Transmitter section of Mobile Unit.
- c) “For covering larger area, Wi-MAX is used compared to WLAN” Justify the answer with the help of advantages of Wi-MAX.
- d)
  - i) Name the Block diagram shown in Figure No. 1.
  - ii) Identify the block “A” and “B” in given block diagram.
  - iii) State the function block “A” and “B”

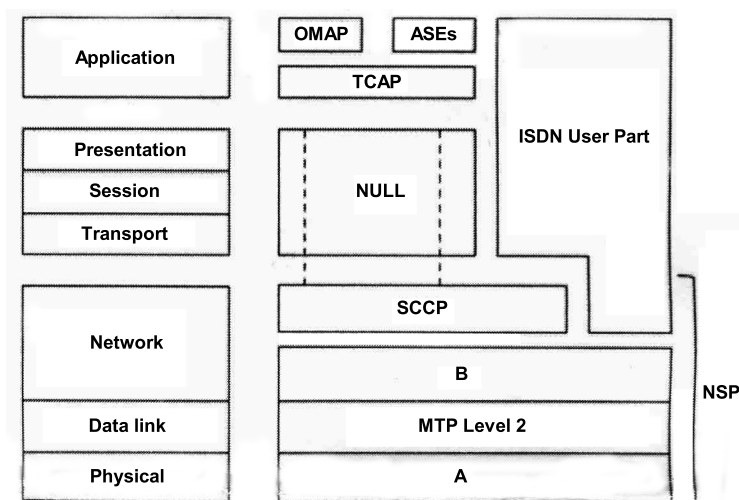


Fig. No. 1

4. Attempt any THREE of the following :

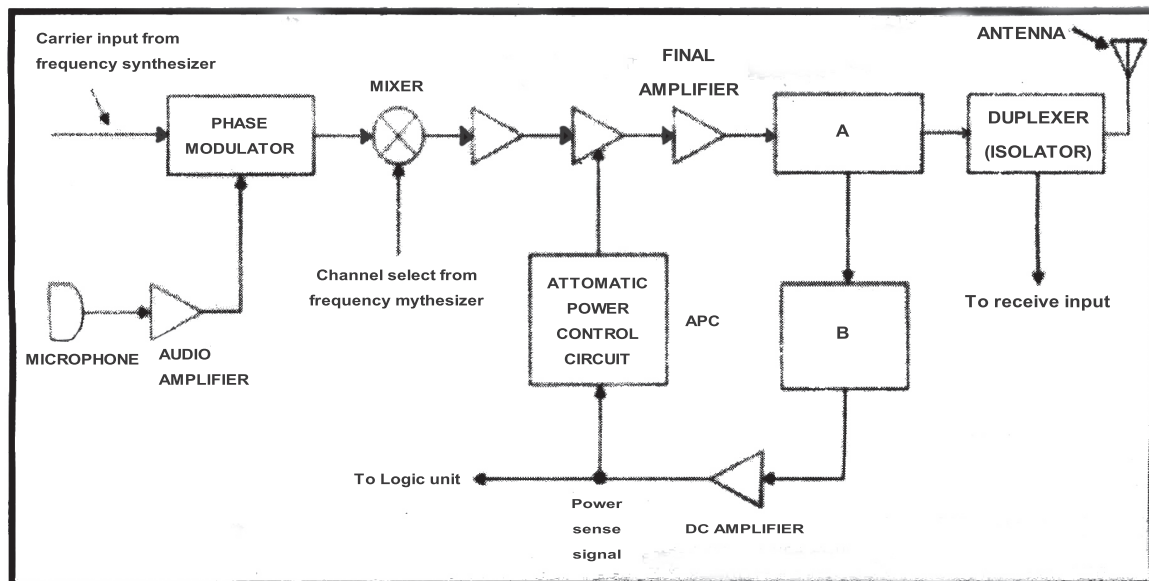
12

- Explain the features of IS-95.
- Differentiate between GSM and IS-95 standards.
- For video conferencing which generation of mobile communication is best suited ? Justify the answer with proper reasoning.
- Explain the Microcell zone concept with its diagram.
- State eight vision of IMT 2000.

5. Attempt any TWO of the following :

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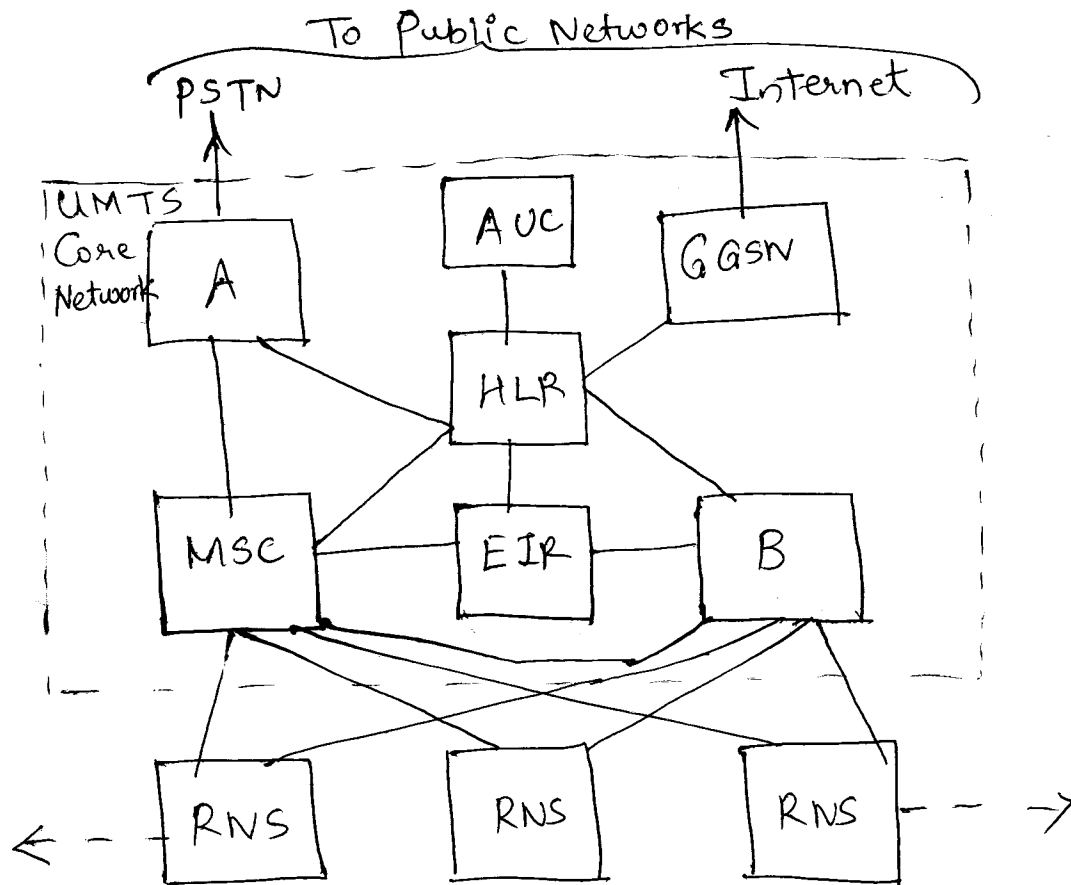
- Name the Block diagram shown in Figure No. 2.
  - Identify the block "A" and "B" in given block diagram.
  - State the functions block "A" and "B".

**Fig. No. 2**

- Design the frequency reuse pattern for cluster size  $N=7$ ,  $N=12$ .
- Explain the architecture of WLAN technology with the help of its diagram.

6. Attempt any TWO of the following :

- a) Explain the function of Home location Register, Visitors Location Register and Operation and Maintenance System in GSM architecture with the help of Block diagram.
- b) i) Name the Block diagram shown in Figure No. 3.  
 ii) Identify the block "A" and "B" in given block diagram.  
 iii) State the functions block "A" and "B".



**Fig. No. 3**

- c) Explain the Function of cellular system with the help of diagram.