



C14-EC-506

**4632**

**BOARD DIPLOMA EXAMINATION, (C-14)**

MARCH / APRIL - 2019

**DECE - V SEMESTER EXAMINATION**

**MOBILE COMMUNICATIONS**

Time : 3 Hours]

[Total Marks : 80

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**PART - A**

**3×10=30**

- Instructions :**
- (1) Answer **ALL** questions.
  - (2) Each question carries **THREE** marks.
  - (3) Answer should be brief and straight to the point and shall not exceed five simple sentences.

- 1 Define UPLINK and DOWNLINK channels in mobile communication.
- 2 List various channels in mobile communication.
- 3 Define the terms cell and cluster.
- 4 Define co-channel interference.
- 5 List the multiple access techniques.
- 6 Draw the TDMA frame structure.
- 7 List the demerits of analog cellular system.
- 8 Write the advantages of GSM over AMPS.
- 9 List the features of EDGE.
- 10 Write short notes on wireless local loop (WLL).

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[ Contd...

**PART - B**

**10×5=50**

- Instructions :**
- (1) Answer any **FIVE** questions.
  - (2) Each question carries **TEN** marks.
  - (3) Answer should be comprehensive and the criterion for valuation is the content but not the length of the answer.

- 11 (a) Draw the block diagram of a basic cellular system.  
(b) State the functions of mobile switching centre (MSC).
  
- 12 Explain the concept of cell splitting and sectoring.
  
- 13 (a) Explain channel assignment strategies.  
(b) Define micro-cell concept.
  
- 14 (a) Compare FDMA, TDMA and CDMA.  
(b) Write the advantages of CDMA.
  
- 15 (a) Explain CDMA.  
(b) State the near-far effect in CDMA.
  
- 16 Explain the GSM architecture with a block diagram.
  
- 17 (a) Explain the radio interface of AMPS.  
(b) List the security aspects of GSM.
  
- 18 Draw and explain the architecture of DECT.