



**C14-EC-604**

**4738**

**BOARD DIPLOMA EXAMINATION, (C-14)  
MARCH/APRIL—2018  
DECE—SIXTH SEMESTER EXAMINATION  
MOBILE COMMUNICATION**

*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) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. State any three functions of mobile switching centre.
2. Define uplink channel and downlink channel in mobile communication.
3. Define the term co-channel interference in mobile communication.
4. Write a short note on micro-cell concept.
5. State the need for multiple access techniques.
6. List any three features of TDMA.
7. Mention the advantages of GSM over AMPS.

8. Write any three specifications of AMPS.
9. List the features of EDGE.
10. Mention the features of GPRS.

**PART—B**

10×5=50

**Instructions** : (1) Answer *any five* questions.

(2) Each question carries **ten** marks.

(3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. (a) Explain the evolution of cellular mobile phone systems. 6  
(b) Draw the block diagram of basic cellular system. 4
12. (a) Explain the cell splitting. 5  
(b) Explain the concept of frequency reuse. 5
13. (a) Describe the channel assignment strategies. 7  
(b) Define system capacity. 3
14. Explain about the concept of CDMA and mention the advantages. 6+4=10
15. (a) Compare between TDMA and CDMA. 4  
(b) Explain the frequency hopped spread spectrum (FHSS). 6
16. (a) Describe the frame structure of GSM system with necessary diagram. 7  
(b) List the features of Digital Cellular System. 3

- 17.** (a) Explain GSM architecture with neat sketch. 6  
(b) List the features of narrow band AMPS. 4
- 18.** Draw the architecture of DECT and explain. 5+5=10

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