



C14-EC-604

4738

**BOARD DIPLOMA EXAMINATION, (C-14)**  
**MARCH/APRIL—2017**  
**DECE—SIXTH SEMESTER EXAMINATION**  
**MOBILE COMMUNICATION**

*Time* : 3 hours ]

[ *Total Marks* : 80

---

**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. What is meant by roamer?
2. Define the terms mobile station and base station.
3. Write a short note on umbrella cell in mobile communication system.
4. Define the terms cell and cluster.
5. What are the advantages of CDMA?
6. List any three features of FDMA.
7. What are the interfaces in GSM architecture?
8. List the salient features of 3G system.
9. Write any three specifications of AMPS.
10. List 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) Describe the process of call progress in a cellular system. 7  
(b) Define half-duplex and full-duplex channels. 3
- 12.** (a) Explain about the concept of frequency reuse in cellular system. 6  
(b) State the relation between capacity and cluster size. 4
- 13.** (a) Explain the capacity of a cellular system. 7  
(b) List the methods of improving channel capacity. 3
- 14.** (a) Describe the concept of TDMA. 7  
(b) List the features of TDMA. 3
- 15.** (a) Explain about CDMA. 7  
(b) What is near-far effect in CDMA? 3
- 16.** (a) Compare between AMPS and GSM. 4  
(b) List the service and security aspects of GSM. 6
- 17.** (a) Draw the frame architecture of GSM and explain. 7  
(b) List the drawbacks of analog cellular system. 3
- 18.** Explain DECT architecture with neat sketch. 5+5=10

\*\*\*

\*