

C14-CM-604

4732

BOARD DIPLOMA EXAMINATION, (C-14) MARCH/APRIL—2018 DCME—SIXTH SEMESTER EXAMINATION

MOBILE COMMUNICATIONS

Time: 3 hours [Total Marks: 80

PART—A

 $3 \times 10 = 30$

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. Draw the simplified reference model in mobile communication.
- 2. Write about need for protocol architecture.
- 3. List the services offered by GSM.
- 4. Write a short note on handover in GSM.
- **5.** List the applications of satellites.
- **6.** State the need for cyclic repetition of data.
- 7. Differentiate between infrared and radio transmission.

- 8. State the applications of Bluetooth.
- **9.** Write about mobile transport layer.
- **10.** List the features of 4G.

PART—B

 $10 \times 5 = 50$

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 UDP protocol.
 - (b) Explain near and far terminal.
- **12.** (a) Draw and briefly explain GSM architecture.
 - (b) Explain new data services in GSM.
- **13.** (a) Explain about mobile originated call (MOC).
 - (b) List and explain different types of handover in GSM.
- **14.** Explain the characteristics of (a) GEO, (b) LEO and (c) MEO.
- **15.** Explain about multimedia object transport protocol.
- **16.** Explain adhoc wireless networks with example.
- **17.** (a) Draw and explain the system architecture of IEEE802.11.
 - (b) Explain piconets and scatternets.
- **18.** (a) Explain tunnelling and encapsulation.
 - (b) Explain IPv6.

* * *