

**322753(22)**

**B. E. (Seventh Semester) Examination,  
April-May 2020**

**(Old Scheme)**

**(Computer Science and Engg. Branch)**

**CELLULAR & MOBILE COMPUTING**

*Time Allowed : Three hours*

*Maximum Marks : 80*

*Minimum Pass Marks : 28*

*Note : All questions are compulsory. Attempt any two from 7 marks questions.*

**Unit-I**

- 1. (a) What is multiplexing techniques? 2
- (b) Explain spread spectrum in context of FHSS and DSSS. 7

- (c) Explain concepts of CDMA with its merits and demerits. 7
- (d) Explain the TDMA frame structure and derive the efficiency of TDMA system. 7

**Unit-II**

- 2. (a) What is paging and two-way paging? 2
- (b) Define the protocol architecture of DECT. 7
- (c) Explain GSM architecture with suitable diagram. 7
- (d) Explain satellite networks in detail by including GEO, LEO & MEO. 7

**Unit-III**

- 3. (a) What are the advantages of WLANs? 2
- (b) Discuss the MAC layer in IEEE802.11. 7
- (c) Explain HIPERLAN & HIPERLAN1 in details. 7
- (d) Write short notes on bluetooth and frequency hopping. 7

**Unit-IV**

4. (a) What are the requirements of mobile IP? 2
- (b) Explain tunneling and encapsulation in mobile IP. 7
- (c) Describe dynamic host configuration protocol with suitable diagram. 7
- (d) What is mobile transport layer? Explain traditional TCP. 7

**Unit-V**

5. (a) Define term HTTP and WWW. 2
- (b) State the requirements of WAP. Explain the layers of WAP. 7
- (c) What is WML? What are the features of WML script over WML? 7
- (d) Explain wireless transport layer security. 7