Roll No. 200010170(32)   Total Pages : 3

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December 2023
B.Tech. (EEIOT) VII SEMESTER
Mobile Communication (ECP-601)

Time : 3 Hours]   [Max. Marks : 75

Instructions :

1. *It is compulsory to answer all the questions (1.5 marks each) of Part-A in short.*

2. *Answer any four questions from Part-B in detail.*

3. *Different sub-parts of a question are to be attempted adjacent to each other.*

PART–A

1. (a) What do you mean by forward and reverse channel?
                                                            (1.5)

    (b) List any *four* advantages of third generation (3G) mobile networks.
                                                            (1.5)

    (c) What are the reasons for choosing Hexagonal cells?
                                                            (1.5)

    (d) Differentiate hard and soft handoff.   (1.5)

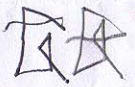   (e) What is cell splitting?   (1.5)

(f) What is call blocking and termination? (1.5)

(g) What is DSSS? (1.5)

(h) What is Bluetooth? (1.5)

(i) What do you mean by intelligent cell? (1.5)

(j) Differentiate Wireless and Wired Networks. (1.5)

PART–B

2. (a) Explain the cellular system architecture in detail. (8)

(b) Explain the paging system, what are their limitations over nowadays communication systems? (7)

3. (a) Discuss different techniques used for improving coverage and capacity in cellular systems. (8)

(b) How digital cellular system is advantageous over Analog cellular systems? (7)

4. (a) Compare packet switching versus circuit switching and enlist the differences. (8)

(b) Explain in detail about WPAN. (7)

5. (a) Explain about TDMA and CDMA. (8)

(b) What are the practical problems that will arise in improving the handoff situation? (7)

6. (a) Explain the GSM system architecture with neat sketch. (8)

(b) Describe the term AIN with its Architecture. (7)

7. (a) What are the different wireless data services? Describe in detail each one with appropriate diagram. (8)

(b) Explain ISDN and its working. How ISDN is useful in mobile communication? (7)