**14CS704**

**Hall Ticket Number:**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **IV/IV B.Tech (Regular / Supplementary) DEGREE EXAMINATION** | | | | | | | |
| **Jan / Feb, 2021** | | | **Computer Science and Engineering** | | | | |
| **Seventh Semester** | | | **Wireless Networks** | | | | |
| **Time:** Three Hours | | | | **Maximum :** 60 Marks | | | |
| *Answer ALL Questions from PART-A.* | | | | | (1X12 = 12 Marks) | | |
| *Answer* ***ANY FOUR*** *questions from PART-B.* | | | | | (4X12=48 Marks) | | |
| **Part - A** | | | | | | | |
| 1 | Answer all questions | | | | | (1X12=12 Marks) | |
|  | a) | Differentiate user mobility and device portability? | | | | |  |
|  | b) | What is frequency division duplex? | | | | |  |
|  | c) | Define Hidden terminal? | | | | |  |
|  | d) | Which layer is responsible for conversion of a stream of bits into signals? | | | | |  |
|  | e) | Expand SIM? | | | | |  |
|  | f) | List four possible handover scenarios in GSM? | | | | |  |
|  | g) | What are the differences between GSM and GPRS? | | | | |  |
|  | h) | Expand TETRA? | | | | |  |
|  | i) | What is extended service set ( ESS ) in IEEE 802.11 infrastructure architecture? | | | | |  |
|  | j) | Define ad-hoc network? | | | | |  |
|  | k) | Define Care of Address (COA)? | | | | |  |
|  | l) | What are the encapsulation mechanisms in Mobile IP? | | | | |  |
| **Part - B** | | | | | | | |
| 2 | a) | Explain the applications of Wireless Networks? | | | | | 6 M |
|  | b) | Explain the Simplified Reference Model of Wireless Networks? | | | | | 6 M |
|  | | | | | | | |
| 3 | a) | Explain about frequency and time division multiplexing techniques? | | | | | 6 M |
|  | b) | Explain amplitude, frequency, and phase shift keying concepts? | | | | | 6 M |
|  | | | | | | | |
| 4 | a) | Explain Frequency division multiple access (FDMA)? | | | | | 6 M |
|  | b) | Explain the Classical Aloha and Slotted Aloha in TDMA? | | | | | 6 M |
|  | | | | | | | |
| 5 | | Explain GSM system architecture? | | | | | 12M |
|  | | | | | | | |
| 6 | a) | Explain DECT protocol architecture? | | | | | 6 M |
|  | b) | Explain UTRA – FDD (W-CDMA)**?** | | | | | 6 M |
|  | | | | | | | |
| 7 | a) | Explain IEEE 802.11 system architecture? | | | | | 6 M |
|  | b) | Explain DFWMAC-PCF with polling? | | | | | 6 M |
|  | | | | | | | |
| 8 | a) | Explain the advantages and disadvantages of Infra-red and radio transmission? | | | | | 6 M |
|  | b) | Explain Dynamic Host Configuration Protocol? | | | | | 6 M |
|  | | | | | | | |
| 9 | a) | Explain IP packet delivery to and from the mobile node? | | | | | 6 M |
|  | b) | **Explain the two methods in Agent discovery of Mobile IP?** | | | | | 6 M |

****