END TERM EXAMINATION

EIGHTH SEMESTER [B.TECH] JULY 2023

Paper Code: ETIT-402	**Subject: Mobile Computing**
Time: 3 Hours	**Maximum Marks: 75**

Note: Attempt five questions in all including Q. No.1 which is compulsory.

Q1   Answer in brief **(Any five)**:-   **(5x5=25)**
(a) Compare Fixed Channel Assignment and Dynamic Channel Assignment and Hybrid Channel Assignment (HCA).
(b) Explain the Handoff process.
(c) What is Near and Far terminal and Hidden-Exposed Problem?
(d) What are the two different basic transmission technologies used to set up WLAN?
(e) What are the various problems which are related to the use of DHCP? How they are overcome?
(f) Discuss the challenges and problems of a handling file system in mobile environment.
(g) What are the advantages of data hoarding? Explain M, E, S, and I tags in detail.

Q2   (a) Draw three tier architecture for mobile computing. Explain.   **(6)**
(b) Compare CDMA with GPRS.   **(6.5)**

Q3   (a) Assume all stations can hear all other stations. One station wants to transmit and senses the carrier idle. Why can a collision still occur after the start of transmission?   **(6)**
(b) Explain the architecture of Bluetooth technology with the help of neat diagram.   **(6.5)**

Q4   (a) Differentiate between Dynamic source routing and Ad Hoc on demand distance vector routing.   **(6)**
(b) What are the goals of mobile IP? How the packet delivery mechanism works for mobile IP?   **(6.5)**

Q5   Compare the following technologies in detail:-   **(5x2.5=12.5)**
(a) WPABX
(b) IrDA
(c) ZigBee
(d) RFID
(e) WiMax

Q6   (a) Explain the process of caching invalidation? Discuss its solutions.   **(6)**
(b) Mention the features of HIPER-LAN and compare it with 802.11a, 802.11b, 802.11g.   **(6.5)**

Q7   (a) Discuss how ad-hoc network differs from wired network in the aspect of routing? Explain any two on demand routing protocol used for routing in this network.   **(6)**
(b) Explain the working procedure of snooping TCP using neat diagram. Elaborate the advantages and disadvantages of Snooping TCP.   **(6.5)**

Q8   (a) Give an overview of the WAP architecture and discuss its protocols and components. Compares this architecture with the typical internet architecture.   **(6)**
(b) What are the main challenges of VoIP? How IPSEC helps in making VoIP network as secure? Discuss.   **(6.5)**

Q9   (a) Explain the i-mode service. How wireless session protocol (WSP) operate on top of the datagram service WDP.   **(6)**
(b) Explain Palm OS. Discuss main features of Palm OS in detail What are the advantages of Palm operating system?   **(6.5)**

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