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Roll No.

TOE-811

**B. TECH. (CSE) (EIGHTH SEMESTER)
MID SEMESTER**

EXAMINATION, March, 2024

MOBILE COMPUTING

Time : 1½ Hours

Maximum Marks : 50

Note : (i) Answer all the questions by choosing any *one* of the sub-questions.

(ii) Each sub-question carries 10 marks.

1. (a) What do you mean by Mobile Computing ? Discuss its importance in modern communication systems. (CO1)

OR

(b) Explain the concept of MAC Protocols. Discuss the architecture with the help of a diagram. (CO1)

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(2)

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2. (a) Discuss the fundamental principles of Wireless LAN (WLAN) technology. What is the difference between WLAN and traditional LAN networking ? (CO1)

OR

- (b) Write a short notes on the following :

(CO1)

- (i) CDMA
- (ii) Time Division Multiplexing TDM
- (iii) Frequency Division Multiplexing FDM

3. (a) What do you understand by Bluetooth communication ? What are the key features and capabilities of Bluetooth technology in the context of mobile computing ? (CO2)

OR

- (b) Explain the Wireless Access Protocol in detail with its all layers and structures.

(CO2)

4. (a) Explore the function of IEEE 802.11 authentication and association mechanisms in the establishment and upkeep of connections between wireless devices and access points. Analyze the security implications and obstacles linked with these processes. (CO2)

OR

- (b) Discuss data broadcasting in wireless communication systems. What are the challenges related to Data Replication in Mobile Computing. (CO2)
5. (a) Explain the ways in which mobile computing can overcome the challenges of Traditional Communications techniques. Also, explain how mobile computing can be beneficial in the healthcare and education sectors. (CO1, CO2)

OR

(b) Discuss various channel allocation schemes in Mobile Computing. Explain with the help of examples of each.

(CO1, CO2)

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