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**B TECH**  
**(SEM-VIII) THEORY EXAMINATION 2018-19**  
**MOBILE COMPUTING**

**Time: 3 Hours****Total Marks: 100****Note: 1.** Attempt all Sections. If require any missing data; then choose suitably.

**SECTION A**

**1. Attempt all questions in brief. 2 x 10 = 20**

- a. What is Mobile Computing?
- b. What are the basic differences between wireless WAN and wireless LAN.
- c. Describe Temporary Ordered Routing Algorithm (TORA).
- d. In context to cellular network, explain near and Far Problem.
- e. What do you mean by cell in cellular concept?
- f. Explain Data Management issues.
- g. What is Bluetooth?
- h. Define Frequency Reuse.
- i. What are the different GSM Services?
- j. Explain MANET.

**SECTION B**

**2. Attempt any three of the following: 10x3=3**

- a. What are the various characteristics of mobile computing? Discuss challenges being faced to support mobile computing.
- b. "CSMA/CD is not a suitable protocol for wireless LAN". Give reasons in favor of or against the statement.
- c. What is General Packet Radio Service (GPRS)? Describe its architecture in detail.
- d. With neat sketch, explain architecture of 802.11 LAN and explain its MAC Logic.
- e. What are the characteristics of MANET? Explain the process of Path Discovery and Path Maintenance in DSR Routing Protocols.

**SECTION C**

**3. Attempt any one part of the following: 10x1=10**

- a. Why does traditional TCP not perform well in wireless network? Discuss different approaches for TCP improvement.
- b. Describe multi-cluster Architecture. Discuss any one algorithm required to partition the network in to several clusters.

**4. Attempt any one part of the following: 10x1=10**

- a. Discuss the architecture of GSM. Also discuss the security issues to implement GSM.
- b. Describe the Fault Tolerance issues involved in Mobile Computing? What is the Monitoring Process?

5. **Attempt any *one* part of the following:** **10x1=10**
- List of entities of mobile IP & describe the data transfer from mobile node to a fixed node and vice-versa.
  - What kinds of problem arise, if TCP is implemented over wireless network? Explain.
6. **Attempt any *one* part of the following:** **10x1=10**
- Discuss the schemes of mobile transaction management. List out various issues concerned to transaction management.
  - What do you mean by CODA file system and also explain the clients in CODA? How Disconnected Operations are performed in CODA?
7. **Attempt any *one* part of the following:** **10x1=10**
- Discuss the WAP Architecture in detail. Write down the applications& principles of WAP.
  - Name the main differences between Ad-hoc network & other network. What advantages do ad-hoc networks offer? Explain in detail by giving suitable example.

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