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B.TECH.

THEORY EXAMINATION (SEM–VIII) 2016-17

MOBILE COMPUTING

Time : 3 Hours   *Max. Marks : 100*

Note : Be precise in your answer.

SECTION – A

1. Attempt the following: 10 x 2 = 20
    a) What do you understand by Mobile Computing
    b) What is Mobile IP?
    c) What are the basic differences between wireless WAN and wireless LAN.
    d) Describe Temporary Ordered Routing Algorithm (TORA).
    e) In context to cellular network, explain Near and Far Problem.
    f) Explain HLR and VLR in GSM architecture.
    g) Explain the concept of Hand over.
    h) Define Adaptive Clustering.
    i) Explain Data Broadcasting.
    j) What are the different GSM Services?

SECTION – B

2. Attempt any five parts of the following questions: 5 x 10 = 50
    a) What is General Packet Radio Service (GPRS)? Describe its architecture in detail.
    b) With neat sketch, explain architecture of 802.11 LAN and explain its MAC Logic.
    c) List and define the entities of Mobile IP and describe data transfer from a mobile node to a fixed node and vice versa.
    d) "CSMA/CD is not a suitable protocol for wireless LAN". Give reasons in favor of or against the statement.
    e) Describe Various Multiplexing Technique. Explain why a given band is used most efficiently in CDMA.
    f) Why does traditional TCP not perform well in wireless network? Discuss different approaches for TCP improvement.
    g) Describe the Fault Tolerance issues involved in Mobile Computing? What are the Monitoring Process
    h) Discuss the architecture of GSM. Also discuss the security issues to implement GSM.

SECTION – C

Attempt any two parts of the following questions: 2 x 15 = 30
3. Write short notes on following
    (i)   Global State Routing (GSR)
    (ii)   Dynamic Source Routing(DSR)
    (iii) Destination Sequenced Distance Vector Routing (DSDV)
4. What are the characteristics of MANET? Explain the process of Path Discovery and Path Maintenance in DSR Routing Protocols.
5. What do you mean by CODA file system and also explain the clients in CODA? How Disconnected Operations are performed in CODA?