Code: 13A05801 **R13**

B.Tech IV Year II Semester (R13) Advanced Supplementary Examinations July 2018

MOBILE COMPUTING

(Common to CSE and IT)

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) Name three MAC services provided by the IEEE 802.11 that are not provided in the traditional LANs.
(b) What are the goals of mobile IP.
(c) What is replay attack?
(d) What are the major advantages of the ad hoc wireless internet?
(e) List the key issues involved in QoS routing in ad hoc networks.
(f) What additional state information is to be maintained at the FP in TCP-F?
(g) What are the advantages of having transmission opportunities (TXOPs) in the IEEE 802.11e MAC protocol?
(h) List the advantages of distributed power control algorithms in ad hoc wireless networks over the centralized power control algorithms.
(i) What are the advantages of a clustered architecture over a layered architecture in a sensor network?
(j) List the challenges in designing a sensor network.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

2 Why do we have four address fields in IEEE 802.11 MAC as against only two in IEEE 802.3 MAC frame? Explain.

OR

3 Discuss the deployment scenarios for HIPERLAN standards.

UNIT – II

4 What do you mean by hidden terminal problem and exposed terminal problems? How can we overcome those problems?

OR

5 What role does the routing protocol play in the provisioning of QoS guarantees for Adhoc wireless networks?

UNIT – III

6 Discuss the differences in topology reorganization in DSDV and CGSR routing protocols.

OR

7 Discuss the impact of the failure of proxy nodes in Split-TCP.

UNIT – IV

8 Explain how a node estimates its expected location and under what circumstances the node generates a *Type2* update message in PLBQR protocol.

OR

9 What is clustering? Explain the disadvantages of clustering in ad hoc wireless networks.

UNIT – V

10 List and explain the advantages of a clustered architecture over a layered architecture in a sensor network.

OR

11 Write short notes on LEAP security protocol.