13MCA541

Fifth Semester MCA Degree Examination, June/July 2019
Mobile and Adhoc Sensor Networks

Time: 3 hrs.

Max. Marks:100

Note: *Answer any FIVE full questions.*

1   a.   Explain briefly about design issues and constraint in mobile adhoc network?   **(10 Marks)**
    b.   Explain with a neat diagram IEEE 802.11 Architecture and its layers.   **(10 Marks)**

2   a.   Explain localized routing protocols.   **(07 Marks)**
    b.   Briefly explain clustering-based flooding.   **(07 Marks)**
    c.   Explain sources of errors in location discovery.   **(06 Marks)**

3   a.   Discuss why the Internet Protocol (IP) layer for mobile routing.   **(06 Marks)**
    b.   What are the typical design goals for adhoc network routing protocols?   **(06 Marks)**
    c.   What is Proactive Approach? Explain destination sequenced distance vector routing protocol.   **(08 Marks)**

4   a.   What are three basic strategies for network layer power saving protocol?   **(06 Marks)**
    b.   Write a note on Geographic Adaptive Fidelity (GAF).   **(04 Marks)**
    c.   Explain three boundary policies widely used by the wireless and MANET network modelers.   **(10 Marks)**

5   a.   Explain formal mechanism to protocol interaction.   **(10 Marks)**
    b.   Briefly discuss examples of path problems.   **(10 Marks)**

6   a.   Briefly discuss applications of sensor networks.   **(10 Marks)**
    b.   Briefly explain examples of category 1 WSN, applications.   **(10 Marks)**

7   a.   Explain sensor parameters (measuriands).   **(06 Marks)**
    b.   Explain design constraints or requirements for WSNs and WNs.   **(05 Marks)**
    c.   What are requirements of wireless network?   **(04 Marks)**
    d.   Explain sensors networks five basic software subsystems.   **(05 Marks)**

8   Write short notes on :
    a.   Performance Requirements
    b.   Common protocols
    c.   Schedule-Based protocols
    d.   Random Access-Based Protocols   **(20 Marks)**

* * * * *