Code No: **PT42053C**   **R13**   **Set No. 1**

IV B.Tech II Semester Regular/Supplementary Examinations, April - 2018
MOBILE ADHOC & SENSOR NETWORKS
(Common to Computer Science and Engineering and Information Technology)

Time: 3 hours   Max. Marks: 70

Question paper consists of Part-A and Part-B
Answer ALL sub questions from Part-A
Answer any THREE questions from Part-B
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PART–A *(22 Marks)*

1. a) Explain the issues in designing ad hoc networks.   [4]
    b) Define multi casting.   [3]
    c) List the major functions performed by TCP.   [4]
    d) Mention the advantages of WSNs.   [4]
    e) Describe the sensor node architecture with appropriate figure.   [4]
    f) Mention the security requirements in ad-hoc networks.   [3]

PART–B *(3x16 = 48 Marks)*

2. a) Explain the applications of MANETs.   [8]
    b) Discus about position based routing algorithms.   [8]

3. a) Explain the various categories of broadcasting protocols.   [8]
    b) Explain about data-transmission oriented geocast routing protocols. [8]

4. a) Why TCP protocols used in wired network is not suitable for wireless networks?
        Compare the different TCP protocols over ad hoc networks.   [8]
    b) Draw the TCP header? Explain its fields.   [8]

5. a) Briefly explain the architecture of wireless senor networks.   [8]
    b) Explain challenges and design issues of WSNs.   [8]

6. a) Explain about data centric routing and directed diffusion.   [8]
    b) Differentiate ad hoc networks and sensor networks. Outline the features of WSN. [8]

7. a) Explain about intrusion tolerant routing in wireless sensor networks. [8]
    b) Brief the problems affecting secure Ad Hoc routing in sensor networks. [8]