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BMCI (2014 & Onwards) (Sem.-6)
MOBILE AD-HOC NETWORKS

Subject Code: BMCI - 603 M.Code: 74317

Time: 3 Hrs. Max. Marks: 60

# **INSTRUCTIONS TO CANDIDATES:**

- 1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- 2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- 3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

### **SECTION-A**

## Q1. Answer the following:

- a. What are the characteristics of the wireless channel?
- b. State any two applications of ad-hoc networks,
- c. Explain TCP over ad-hoc wireless networks,
- d. What are the advantages of hierarchical routing?
- e. What is the need for energy management in ad-hoc wireless networks?
- f. What are the components of packet radios?
- g. What are the challenges facing ad-hoc mobile networks?
- h. What is the difference between IEEE 802.11a and IEEE 802.11b?
- i. What is QoS aware routing?
- j. What is the goal of Transport layer?



### **SECTION-B**

- Q2. Differentiate between cellular network and wireless network.
- Q3. What are the advantages and disadvantages of MAC protocols using directional antennas?
- Q4. Discuss Dynamic Source Routing in brief.
- Q5. What is a network security attack? What are the network security requirements?
- Q6. Briefly discuss the energy management schemes in ad-hoc wireless networks.

## **SECTION-C**

- Q7. Discuss in detail about Indoor and Outdoor models in ad-hoc mobility models.
- Q8. Illustrate IEEE 802.11a and 802.15 standards in detail.
- Q9. What are the challenges in providing QoS in ad-hoc wireless networks? Discuss the various types of QoS solutions.

NOTE: Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.

**2** | M-74317 (S2)-2063