

**Roll No.**

**Total No. of Pages : 02**

**Total No. of Questions : 09**

**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.**