

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013**

**Subject code: 725303**

**Date: 03-06-2013**

**Subject Name: Mobile Ad Hoc Networks**

**Time: 10.30 am – 01.00 pm**

**Total Marks: 70**

**Instructions:**

- 1. Attempt question 1, which is compulsory and answer any four from the rest questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right hand indicate the marks.**

Q. No. 1

- a. Explain working strategy of DSDV protocol in detail. [7 Marks]
- b. Explain various characteristics of an Ideal routing protocol for Ad Hoc network. [7 Marks]

Q. No. 2

- a. Suggest different approaches to make AODV power aware routing protocol. [7 Marks]
- b. What are the advantages of hierarchical topology based protocols over protocols that use flat topologies with example. [7 Marks]

Q. No. 3

- a. Explain various steps involved in data delivery with respect to DSR protocol. [7 Marks]
- b. What do you mean by cross layer optimization? Suggest any one technique for optimizing routing decision by means of cross layer interaction. [7 Marks]

Q. No. 4

- a. Explain topology reorganization in DSDV and AODV routing protocols. [7 Marks]
- b. Explain how link reversal algorithm differs from other routing protocols with example. [7 Marks]

Q. No. 5

- a. Explain how Route maintenance is achieved in Signal Stability based adaptive routing. [7 Marks]
- b. Explain various power aware metric with suitable example. [7 Marks]

Q. No. 6

- a. Suggest a routing approach to do multicasting with the help of location information with some appropriate scenario. [7 Marks]
- b. Why MANET protocols like AODV are not suitable for VAN ET? Explain various modifications needed in MANET protocols to make it suitable for VANET. [7 Marks]

Q. No. 7

- a. Explain cluster formation in CBRP and discuss various issues involved in hierarchical routing. [7 Marks]
- b. Explain how AODV and DSDV are used in Hierarchical routing with appropriate example. [7 Marks]

Q. No. 8

- a. Explain the working of Mobile IP in detail and explain the changes required to make existing ad hoc routing protocol suitable for mobile IP support. [7 Marks]
- b. Give the classification of Ad Hoc routing protocols. [7 Marks]

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