Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

M. E. - SEMESTER – II • EXAMINATION – SUMMER • 2013

Sul	bject	code: 1722702 Date: 10-06-2013	
Sul	bject	Name: Ad Hoc Networks	
Tir	ne: 1	0.30 am – 01.00 pm Total Marks: 70	
Ins	struc	tions:	
		<ol> <li>Attempt all questions.</li> <li>Make suitable assumptions wherever necessary.</li> <li>Figures to the right indicate full marks.</li> </ol>	
Q.1	(a) (b)	Define computer network and discuss the architecture of PRNETs. Compare tree-based multicast routing protocols with mesh based multicast routing protocols.	07 07
Q.2	(a)	List the issues in designing the routing protocol and explain the characteristics of ideal routing protocol for adhoc networks.	07
	<b>(b)</b>	Explain 802.11 MAC frame format in detail.  OR	07
	(b)	Explain all the components of typical IEEE 802.11 network.	07
Q.3	(a) (b)	Explain DSDV with its advantages and disadvantages.  What are the key differences between LAR1 and LAR2 algorithms?  OR	07 07
Q.3	(a) (b)	Explain AODV with its advantages and disadvantages.  Explain CGSR in detail.	
Q.4	(a)	Describe the issues in designing the transport layer protocol for adhoc networks.	07
	(b)	Determine the transfer time of a 22 KB file with a mobile data network (a) with a transmission rate of 10 kbps and (b) repeat the same for 802.11 WLAN operating at 2 Mbps. (c) What is the length of the file that WLAN can carry in the time that mobile data service carried a 20 KB file?  OR	07
Q.4	(a) (b)	Explain Feedback based TCP with advantages and disadvantages.  Discuss issues and challenges in providing QoS in Ad hoc wireless networks.	07 07
Q.5	(a) (b)	Compare various TCP solutions for ad hoc wireless networks.  Explain network layer attacks in depth for adhoc networks.  OR	07 07
Q.5	(a) (b)	Explain the SWAN model with regulation algorithms.  Explain battery scheduling techniques in detail.	07 07

\*\*\*\*\*