Seat No.:	Enrolment No.

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER- II EXAMINATION - SUMMER 2015

	•	Code: 2722711 Date: 26/05/20	15
	-	Name: Wireless Ad-Hoc and Sensor Networks 2:30pm – 05:00pm Total Marks: 7	0
	ructio	ns:	
	2.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	What is Mobile Ad-hoc Network (MANET)? Compare the MANET with Cellular Network.	07
	(b)	Explain IEEE 802.11 (Wireless LAN) Standards in Detail.	07
Q.2	(a)	Explain the difference between Proactive, Reactive and Hybrid approaches of Routing protocols in Ad-hoc Networks and explain any one Reactive Protocol in detail.	07
	(b)	Explain the difference between Tree-Based and Mesh-Based Multicast Routing Protocols in Ad-hoc Networks and explain MAODV Protocol in Detail. OR	07
	(b)	Explain Voronoi Diagram based Geocasting (VDG) Protocol.	07
Q.3	(a) (b)	Explain Spectrum Access Models for Cognitive Radio. Explain the Network Architecture of Wireless Mesh Network. OR	07 07
Q.3	(a)	Why does Traditional TCP Not Perform Well in Ad-Hoc Wireless Networks? Explain in detail.	07
	(b)	Give the Classification of Ad-Hoc network MAC Protocols and explain in brief.	07
Q.4	(a)	What is Wireless Sensor Network? List the Category 1 & 2 WSN Applications and explain any one application in detail.	07
	(b)	Draw the block diagram of Hardware and Software Components of Sensor Node and explain in brief.	07
Q.4	(a)	OR Discuss the Design Constraints or Requirements for WSNs and WNs.	07
γ.,	(b)	List the Wireless Protocols used in WSNs and also describe complete technical specifications of each protocol.	07
Q.5	(a)	What is the difference between Schedule-based and Contention-based MAC Protocols? Explain Schedule-based MAC Protocols for WSNs	07
	(b)	Draw the Heterogeneous Network Architecture and explain its Ingredients. OR	07
Q.5	(a)	Explain IEEE 802.15.4 LR-WPANs STANDARD with its Physical Layer and MAC Layer in detail.	07
	(b)	Discuss the issues and requirements of security in Ad-Hoc and Sensor Networks.	07
