GUJARAT TECHNOLOGICAL UNIVERSITY

	ME – SEMESTER IV (NEW) – • EXAMINATION – SUMMER 2016		
Sul	bject	Code: 2740302 Date:04/05/20	16
Subject Name: INDUSTRIAL DATA NETWORKS Time:10:30 am to 01:00 pm Instructions: Total Marks:		: 70	
	1. 2. 3.	Attempt all questions. Make suitable assumptions wherever necessary. Figures to the right indicate full marks.	
Q.1	(a)	Explain HIERARCHICAL COMMUNICATIONS MODEL for the factory automation.	07
	(b)	Discuss RS-485 networks with necessary diagrams.	07
Q.2	(a)	Discuss the similarities and differences between Fieldbus devices and conventional devices.	07
	(b)	Give explanation on Foundation Fieldbus architecture in detail. OR	07
	(b)	Give explanation on PROFIBUS-PA block model in detail.	07
Q.3	(a) (b)	Explain the different types of function blocks and its importance. Discuss about network layouts with fieldbus networks. OR	07 07
Q.3	(a)	Give explanation on Distribution and Layout Planning for Fibre optic network design.	07
	(b)	Discuss about TCP/IP addressing in detail.	07
Q.4		Give explanation on segment design rules with fieldbus networks in detail.	14
Q.4		OR Give explanation on resource block and transducer block in detail	14
Q.5		Describe the methods for calibrating HART field devices with necessary diagrams in detail.	14
Q.5		OR Describe the methods for installing HART devices and networks with necessary diagrams in detail.	14
