Seat No.:	Enrolment No.

## GUJARAT TECHNOLOGICAL UNIVERSITY

## BE - SEMESTER-VII EXAMINATION - WINTER 2015

Su	bject	Code: 171703 Date: 09/12/2015	
Tiı	ne: 1 tructio		
	1. 2. 3.	Make suitable assumptions wherever necessary.	
Q.1	(a) (b)	Explain the Open System Interconnection (OSI) model. Write the technical note on fiber optical cable components. Give its advantages over the other type of transmission.	07 07
Q.2	(a) (b)	Explain Electric Signal Characteristics of EIA-232 standard.  Give the forms of coupling of electrical noise into the sensitive data communications circuits. Describe any two of them.  OR	07 07
	<b>(b)</b>	Explain EIA-485 interface standard.	07
Q.3	(a) (b)	Draw the Modbus protocol structure. Explain any two function code in details. Explain with necessary details HART protocol implementation in OSI model.  OR	07 07
Q.3	(a) (b)	Explain the Data link layer of the AS-interface network. Explain DeviceNet topology.	07 07
Q.4	(a) (b)	Draw and explain the architecture of the Profibus protocol stack.  Explain troubleshooting of Foundation Fieldbus system.  OR	07 07
Q.4	(a) (b)	Describe the industrial Ethernet system.  Explain the TCP header format and the UDP header format.	07 07
Q.5	(a) (b)	Explain in detail implementing a radio link.  Explain various troubleshooting tools for Profibus.  OR	07 07
Q.5	(a) (b)	Draw the DB-9 connector and explain function of each pin.  Describe current loop hardware and serial interface converter.	07 07

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