

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

Enrolment

**GUJARAT TECHNOLOGICAL UNIVERSITY**  
**BE - SEMESTER- VII • EXAMINATION – SUMMER 2015**

**Subject Code: 171703**

**Date: 12/05/2015**

**Subject Name: Industrial Data Communication**

**Time: 02.30PM-05.00PM**

**Total Marks: 70**

**Instructions:**

- 1. Attempt all questions.**
- 2. Make suitable assumptions wherever necessary.**
- 3. Figures to the right indicate full marks.**

- Q.1** (a) Write a short note on OSI model. **07**  
(b) List out important parameters of the fiber optic cable. **07**

- Q.2** (a) Explain application layer and user layer of the foundation field bus. **07**  
(b) Discuss Device Net Topology. **07**

**OR**

- (b) Describe Gigabit Ethernet. **07**

- Q.3** (a) Explain impedance coupling & electrostatic coupling of the noise. **07**  
(b) Explain troubleshooting of AS-I. **07**

**OR**

- Q.3** (a) Write a short note on function codes of Modbus protocol. **07**  
(b) Describe token passing & polling system for MAC in profibus. **07**

- Q.4** (a) Describe path profile and RF path loss calculation. **07**  
(b) Describe about data link layer of HART protocol. **07**

**OR**

- Q.4** (a) Explain troubleshooting of the TCP/IP. **07**  
(b) Describe EIA-485 standard with its 2 wire configuration. **07**

- Q.5** (a) Describe 10Base5 Ethernet segment. **07**  
(b) Discuss null modem connection. **07**

**OR**

- Q.5** (a) Explain IPV-4 header. **07**  
(b) Discuss connections between DTE & DCE using DB-25. **07**

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