

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER IV (NEW) – EXAMINATION – SUMMER - 2017

Subject Code: 2740302**Date: 03/05/2017****Subject Name: INDUSTRIAL DATA NETWORKS****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) Explain the construction of Fiber optic cable and also explain its working with neat figure **07**
(b) What is supervisory system? Show connection of a PROFIBUS segment to a supervisory system. **07**
- Q.2** (a) Explain TCP/IP Model in details. **07**
(b) Explain Device net network in details. **07**
(b) Explain the Remote access of Industrial automation systems via Internet. **07**
- Q.3** (a) Explain different uses of Fieldbuses in Industrial Plants with the help of figure. **07**
(b) What is “Smart” field device. Explain Smart Pressure transmitter. **07**
- Q.3** (a) Explain at-least three different application of HART Protocol **07**
(b) Explain Foundation Field bus two level architecture with necessary sketch. **07**
- Q.4** (a) How many layers are used in field bus architecture? Explain each. **07**
(b) Explain network structure using Ethernet interface **07**
- Q.4** (a) Explain the three possible grounding scheme for an IEC- 61158- 2 segment. **07**
(b) Explain the CSMA/CD in details **07**
- Q.5** (a) Explain various network interconnection devices. **07**
(b) Explain Control Net with communication profile. **07**
- Q.5** (a) Explain the communication system- Lonworks **07**
(b) Explain World FIP with its communication profile. **07**
