

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY
ME Semester –I Examination Feb. - 2012

Subject code: 710309N

Date: 21/02/2012

Subject Name: Industrial Data Communication

Time: 10.30 am – 01.00 pm

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 CDMA technology used for mobile communication in detail. **10**
(b) What is modem and state its various standards. **04**
- Q.2** (a) Explain different service primitive for implementing simple connection oriented services. **07**
(b) Explain the concept of shortest path routing. **07**
OR
(b) Compare the distance vector and the link state routing protocol. **07**
- Q.3** (a) Explain with an example how Hamming code can be used to correct single bit errors. How the Hamming code can be used for burst error correction? **08**
(b) What is Bluetooth? Give the performance characteristics of a typical Bluetooth device. **06**
OR
- Q.3** (a) Explain the classification of ETHERNET. **08**
(b) Describe CSMA/CD in brief. **06**
- Q.4** (a) Explain the Data Link Layer in Internet and HDLC. **08**
(b) Explain the concept of redundancy in error detection. **06**
OR
- Q.4** (a) Explain electromagnetic spectrum and its role for communication. **08**
(b) Explain wavelength division multiplexing. **06**
- Q.5** What is the difference between protocol and service interface? Explain your answer in terms of the ISO seven layer model. **14**
OR
- Q.5** Explain simplex stop and wait protocol in detail. **14**
