

**GUJARAT TECHNOLOGICAL UNIVERSITY****B. E. Sem. - V - Examination – June- 2011****Subject code: 150702****Subject Name: Computer Network****Date: 22/06/2011****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) Discuss different types of guided and unguided media used to transmit data in network. **07**
- (b) Answer the following questions. **07**
1. Explain design issues for layers. **04**
  2. Explain: Distributed Queue dual bus. **03**
- Q.2** (a) Explain piggybacking, 1-bit sliding window protocol with go back n and selective repeat. **07**
- (b) Explain IEEE Standard 802.4 in detail. **07**
- OR**
- (b) Explain ATM Reference Model in detail. **07**
- Q.3** (a) Compare transparent bridge and source routing bridge. **07**
- (b) Why CSMA/CA is used for wireless network? Explain it. **07**
- OR**
- Q.3** (a) Explain Stop and Wait ARQ in detail. **07**
- (b) Answer the following questions. **07**
1. Generate the CRC code for 1101011011. The divisor is 10011. Append CRC with data and check at receiver side whether any error exists or not. **04**
  2. Explain Utopia protocol. **03**
- Q.4** (a) Explain Leaky Bucket and Token bucket algorithm in detail. **07**
- (b) Explain distance vector routing. What is count to infinity problem? **07**
- OR**
- Q.4** (a) Answer the following questions. **07**
1. Differentiate: Datagram subnet v/s Virtual circuit subnet. **04**
  2. Explain Jitter Control. **03**
- (b) Explain Link State Routing algorithm in detail. **07**
- Q.5** (a) Answer the following questions. **07**
1. Explain various Quality of service parameters for transport layer. **03**
  2. Explain crash recovery of transport protocol. **04**
- (b) Write about elements of transport layer (1) connection establishment (2) connection release. **07**
- OR**
- Q.5** (a) Explain DNS in detail with example. **07**
- (b) Answer the following questions. **07**
- (1) Transposition cipher. **03**
  - (2) RSA algorithm. **04**

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