

GUJARAT TECHNOLOGICAL UNIVERSITY
BE SEMESTER– V(OLD) • EXAMINATION – WINTER- 2017

Subject Code: 150702**Date: 16/11/ 2017****Subject Name: Computer Network****Time: 10:30 AM TO 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.

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|------------|--|-----------|
| Q.1 | (a) Classify various transmission media by their characteristics. | 07 |
| | (b) Explain the terms : LAN, CAN, MAN, WAN | 07 |
| Q.2 | (a) Explain all steps of link state routing with example. | 07 |
| | (b) Explain Sliding window protocol using GO back to N. | 07 |
| | OR | |
| | (b) Explain STOP and Wait Protocol. | 07 |
| Q.3 | (a) Enlist various collision free protocols. Explain any one in detail with example. | 07 |
| | (b) Explain Virtual circuit and cells with respect to ATM | 07 |
| | OR | |
| Q.3 | (a) What is difference between error detection and correction? Give method names for both. Explain error detection technique with example. | 07 |
| | (b) What is topology? Give different type of topology and its use | 07 |
| Q.4 | (a) Discuss and list the congestion prevention policies at data link, network and transport layers that can affect the congestion. | 07 |
| | (b) Write a short note on DNS | 07 |
| | OR | |
| Q.4 | (a) Explain Load shedding and Jitter control strategies to handle the congestion. | 07 |
| | (b) Write a short note on WWW and Email. | 07 |
| Q.5 | (a) Apply binary, Manchester and differential Manchester encoding on following bit pattern 10110111. | 07 |
| | (b) Give differences between connection oriented and connectionless services | 07 |
| | OR | |
| Q.5 | (a) What is cyclic redundancy check? Show the calculation polynomial code checksum for a frame 1101011011 using the generator x^4+x+1 | 07 |
| | (b) Explain IPv4 header in detail. | 07 |
