

GUJARAT TECHNOLOGICAL UNIVERSITY
PDDC - SEMESTER-VIII • EXAMINATION – SUMMER • 2014

Subject Code: X 81101**Date: 27-05-2014****Subject Name: Data Communication and Networking****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)** Draw and explain the TCP/IP reference model for networking. **07**
(b) What are the signals used for RS-232 interface? Explain. Also draw null modem. **07**
- Q.2 (a)** (i) Explain the following service primitives for connection oriented service : **07**
LISTEN, CONNECT
(ii) Explain various guided transmission media used for networking
(b) Compare circuit switching and packet switching. **07**
- OR**
- (b)** Write a short note on Global System for Mobile Communications **07**
- Q.3 (a)** Write short note on error detecting and error correcting codes. **07**
(b) What is bit stuffing and byte stuffing in data link layer ? Explain with suitable examples. **07**
- OR**
- Q.3 (a)** Write a brief note on: **07**
(i) Go back by n protocol
(ii) Selective repeat protocol
(b) Explain Carrier sense Multiple Access protocols. **07**
- Q.4 (a)** Explain Wireless LAN protocols. **07**
(b) Write a short note on Bluetooth. **07**
- OR**
- Q.4 (a)** Explain the following: **07**
(i) Repeater (ii) Bridge (iii) Router (iv) Gateway
(b) Compare the following issues in datagram subnet and virtual circuit subnet : **07**
(i) Circuit setup (ii) Addressing (iii) State Information (iv) Routing (v) Effect of router failures (vi) Quality of Service (viii) Congestion control
- Q.5 (a)** Write short notes on: **07**
(i) Flooding (ii) Distance vector routing
(b) What is jitter in internet? How jitter is controlled in network layer ? **07**
- OR**
- Q.5 (a)** Explain the classes of IP addresses. **07**
(b) Write short note on voice over IP. **07**
