

Code :R7410401

R7

**IV B.Tech I Semester(R07) Supplementary Examinations, May/June 2011
COMPUTER NETWORKS**

(Common to Electronics & Communication Engineering, Electronics & Instrumentation Engineering)

Time: 3 hours

Max Marks: 80

**Answer any FIVE questions
All questions carry equal marks**

1. (a) Explain in detail ISO-OSI reference model.
(b) Compare OSI and TCP/IP reference models.
2. (a) What is asynchronous communication?
(b) What are different types of switching techniques? Compare them.
(c) Compare copper and Fiber as transmission media.
3. (a) What is framing? Why framing is required? What are the different types of framing techniques?
(b) What is pipelining? With an example, Explain Go-back-N sliding window protocol.
(c) Given 1101011011 data frame and generator polynomial $G(x)=x^4+x+1$, derive the transmitted frame.
4. (a) Explain about carrier sense multiple access protocol that can be used at the layer.
(b) Explain various token bus control frames?
5. (a) Write the algorithm for shortest path routing. Explain it with the help of an example?
(b) Compare Datagram and virtual circuit subnet?
6. (a) What is congestion. What are the indications of congestion. How congestion is controlled?
(b) Explain network layer in the Internet.
7. (a) Explain the three way handshaking methods for transport layer connection establishment and release.
(b) Explain different layers of ATM.
8. (a) What is DNS? What is its use? How DNS works?
(b) What is cryptanalysis? Briefly discuss about substitution and transposition ciphers?
