

**III B.Tech II Semester Supplementary Examinations,
November/December 2005
COMPUTER NETWORKS**

**(Common to Computer Science & Engineering, Information Technology
and Electronics & Computer Engineering)**

Time: 3 hours**Max Marks: 80**

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

1. (a) With a neat diagram, explain the functionality of layers, protocols and interfaces. [10]
(b) What is the difference between connection-oriented and connectionless switching. [6]
2. (a) Differentiate B-ISDN ATM reference model with OSI reference model. [6]
(b) Explain the ISDN interfaces. [10]
3. (a) Discuss the design issues of data link layer? [8]
(b) Explain sliding window protocol ? [8]
4. (a) What are bridges? What key factors are considered while designing the bridges. [8]
(b) Explain the operation of Transparent bridge. [8]
5. (a) Differentiate between transmission path, virtual path and virtual circuit. [6]
(b) Explain link state routing with an example. [10]
6. (a) Compare virtual circuit and datagram subnets. [5]
(b) Explain the concept CIDR. [5]
(c) Discuss about ATM LAN emulation. [6]
7. (a) Differentiate virtual circuit and datagram services with respect to transport layer. [6]
(b) Discuss End-to-End service and datagrams. [5]
(c) Write a note on achieving reliability with reference to network communication. [5]
8. (a) What is meant by authentication? Explain how authentication based on shared secret key works? [8]
(b) Explain how Diffie-Hellman Key exchange protocol works? [8]
