

IV B.Tech I Semester Supplementary Examinations, April/May 2005

**COMPUTERS NETWORKS**

(Electronics & Communication Engineering)

Time: 3 hours

Max Marks: 70

Answer any FIVE Questions  
All Questions carry equal marks

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1. Describe OSI reference model and give goals and functions of each layer.
2. (a) Describe TEP/TP modes.  
(b) Describe local area network design.
3. (a) Describe what is the use of piggy backing? Assume a channel capacity is 50Mbps and a frame length is 10,000 bits with a propagation delay of 500ms. Give the channel utilization.  
(b) Describe one-bit sliding window protocol and its disadvantages.
4. (a) Explain static and dynamic channel allocation schemes.  
(b) Give the Frame format of 802.3 and explain each field.
5. (a) Describe any two routing algorithms.  
(b) Describe any two congestion control algorithms.
6. (a) Describe how crash recovery is addressed by Transport layer.  
(b) Describe Internet transport protocols.
7. (a) Describe what is Encryption. And explain about public key cryptography.  
(b) Explain the concept flow control and buffering.
8. Write short notes on any three of the following:
  - (a) DNS
  - (b) Gateways
  - (c) Fiber optics
  - (d) Twisted pair.

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