

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**  
**III B.TECH II SEM-REGULAR/SUPPLEMENTARY EXAMINATIONS MAY - 2010**  
**COMPUTER NETWORKS**

**(Common to CSE, IT, CSSE, E.COMP.E)**

**Time: 3hours**

**Max.Marks:80**

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

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- 1.a) Explain the design of original ARPANET.
- b) What are the three criteria necessary for an effective and efficient network?
- c) Name the four basic network topologies and give an advantage for each type. [5+3+8]
  
2. Explain about B-ISDN ATM reference Model. [16]
  
- 3.a) Explain about the Error-correcting codes.
- b) Explain about the HDLC frame format. [8+8]
  
- 4.a) Explain about the source routing bridge.
- b) Explain about the 802.4 frame format. [8+8]
  
- 5.a) Explain about Hierarchical routing.
- b) Distinguish between Datagram and virtual circuit subnets. [8+8]
  
- 6.a) Explain about the leaky bucket algorithm.
- b) Explain the congestion control techniques in virtual circuit and datagram subnets. [8+8]
  
- 7.a) Explain about the ATM cell formats.
- b) Explain about Tunneling. [8+8]
  
- 8.a) Explain about the mail access protocols.
- b) Explain about the RSA algorithm. [8+8]

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