

Code No: C4004**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD
M.TECH I - SEMESTER EXAMINATIONS, APRIL/MAY-2012****HIGH SPEED NETWORKS
(INFORMATION TECHNOLOGY)****Time: 3hours****Max. Marks: 60****Answer any five questions
All questions carry equal marks**

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- 1.a) Compare OSI-ISO and TCP/IP reference models.
b) Compare circuit switched, datagram and virtual circuit networks.
- 2.a) Describe encoding and decoding procedure in cyclic codes with a suitable example.
b) What are the functions of data link layer? Explain error and flow control data link protocols.
- 3.a) How do you classify multiple access protocols? Discuss the performance of various random access protocols.
b) What is a bridge? Explain its operation.
- 4.a) Discuss ATM protocol architecture what are the fields of ATM cell header
b) Describe connection establishment, Release and congestion control procedure in Frame relay networks.
- 5.a) Compare the features of IPv4 and IPv6.
b) List out the services and applications of TCP, UDP SCTP protocols.
6. What is congestion? Explain various techniques to improve quality of service.
- 7.a) Briefly discuss the needs and goals for network design.
b) Give the quality of service requirements.
- 8.a) Explain the design aspects of hierarchical and campus network topologies.
b) Write a brief note on selection of switching and routing protocols.

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