



Code No: A0607

**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD**

**M.Tech I Semester Examinations October/November-2011**

**HIGH PERFORMANCE TCP/IP NETWORKS**

**(DIGITAL SYSTEMS AND COMPUTER ELECTRONICS)**

**Time: 3hours**

**Max.Marks:60**

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

- - -

- 1.a) List the services provided by the TCP/IP and briefly explain about its application.
- b) Compare and contrast between TCP/IP and OSI models. [12]
- 2.a) Draw the header format of TCP and describe the usage of each field in it.
- b) The IP header checksum only verifies the integrity of IP header. Discuss the pros and cons of doing the checksum on the header part versus on the entire packet.
- c) Identify the range of IPv6 addresses spanned by Class A, Class B and Class C. [12]
- 3.a) Explain the general principles of congestion control.
- b) Describe how the congestion control will be done in virtual circuit. [12]
4. Write short notes on
  - a) Slow start
  - b) Fast retransmission and fast recovery. [12]
- 5.a) Describe briefly about buffer management.
- b) Compare passive queue management, active queue management and fair queue management. Write which management is better. [12]
6. Explain the fair queing and weighted fair queing scheduling mechanisms with the help of relevant example and compare them. [12]
7. Write short notes on
  - a) Assured service
  - b) Expediated service. [12]
8. Explain in detail about multi protocol label switching. [12]

\* \* \* \* \*