

**BACHELOR IN COMPUTER
APPLICATIONS****Term-End Examination****June, 2007****CS-68 (S) : COMPUTER NETWORKS***Time : 3 hours**Maximum Marks : 75*

Note : Question number 1 is **compulsory**. Answer any **three** questions from the rest.

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1. (a) Why would an application use UDP instead of TCP ? 2
- (b) What is the difference between packet and frame ? 3
- (c) How is the data fragmented and again reassembled in TCP/IP ? 5
- (d) Which layer of OSI protocol handles the "error correction and detection" ? Explain all functions of this layer. 4
- (e) Differentiate between Baseband and Broadband coaxial cable. 4

- (f) What is congestion ? How is congestion controlled by TCP/IP ? 5
- (g) How are the Switches and Hubs different ? List at least five differences. 5
- (h) Describe the term Baud Rate. 2
- 2.** (a) Differentiate between transparent and source routing bridges. 4
- (b) How do the layers of the TCP/IP protocol suite correlate to the layers of the OSI model ? 6
- (c) What is Gateway ? How do X.25 gateways link hosts and LANs ? Explain. 5
- 3.** (a) Compare and contrast CSMA/CD and token passing access methods. 4
- (b) What is the difference between flow control and congestion control ? Also, specify the reason for occurrence of congestion in a network. 6
- (c) What are the main physical topologies used in LANs ? Explain the advantage and disadvantage of each. 5
- 4.** (a) Compare Circuit switching and Packet switching. 4
- (b) How does ATM protocol work ? Also, explain the various functions performed by ATM Adaptation layer. Also describe the ATM Cell format. 7

- (c) Explain the purpose of following TCP header parameters : 4
- (i) Windows
 - (ii) UrgPtr
 - (iii) Sequence number
 - (iv) Data offset
5. (a) Which layer of TCP/IP handles "Routing" ? Explain the working of Exterior Gateway Routing Protocol (EGRP) and Open Shortest Path First (OSPF). 5
- (b) Why is multiplexing needed in data communication system ? Explain TDM and FDM. 4
- (c) Write short notes on the following : 6
- (i) DNS
 - (ii) FTP
 - (iii) RIP

