

06962 BACHELOR IN COMPUTER APPLICATIONS

Term-End Examination

June, 2011

CS-68 : COMPUTER NETWORKS

Time : 3 hours

Maximum Marks : 60

Note : Question No. 1 is compulsory. Attempt any two questions from the rest.

1. (a) Explain the working of token bus and token ring when a station accepts the token and then crashes immediately. 5
- (b) What are the important factors which can cause congestion in Computer Network ? 3
- (c) Explain the working of Sliding Window Protocol using an example. 5
- (d) Differentiate between simplex, half duplex and full duplex data communication. Also, give one example of each. 6
- (e) Which layer of OSI model handles "Encryption" ? Explain any three important functions of this layer. 4
- (f) Define and differentiate between bit rate and baud rate. 2

- (g) Explain the concept of circuit switching and packet switching. Also, state which one is better for voice communication and why ? 5
2. (a) How does LAN differs from MAN and WAN ? Explain briefly about different physical topologies used in LAN. 6
- (b) How does RARP resolves MAC address to an IP address ? Also, write how it differs from ARP. 6
- (c) Differentiate between unicast, multicast and broadcast. 3
3. (a) Explain, why flow control is handled at two different layers of OSI ? Name and list two other important features of these layers. 7
- (b) What is the purpose of multiplexing in data communication ? Define and differentiate between TDM and FDM with the help of a suitable diagram for each. 8
4. (a) Draw and describe different fields of ATM Cell format. Also, list various functions performed by ATM Adaptation layer. 7
- (b) Compare between source routing and transparent bridges. 4
- (c) Explain the Count - to - infinity problem and solution in distance vector routing. 4

5. (a) What is Hub ? Explain the purpose of hub, switches and gateways in Computer Networks. 7
- (b) Explain the role and purpose of following fields of TCP header. 8
- (i) Data offset
 - (ii) Sequence Number
 - (iii) Acknowledgement
 - (iv) Window
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