Code No: R6-32-MCA

## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD MCA-III Semester Regular Examinations, February 2010 COMPUTER COMMUNICATIONS

Time: 3hours Max.Marks:60

## Answer any Five questions All questions carry equal marks

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- 1. What is the use of a reference model? Compare and contrast the reference models OSI and TCP/IP.
- 2.a) Write about the different Guided Transmission media elevating the prominence of the media.
  - b) Describe the sliding window protocols.
- 3.a) Explain how the problem of multiple access channel can be solved using CSMA/CD protocol?
  - b) Discuss how data link switching using bridges is possible in the data link layer between multiple LANS.
- 4.a) Explain the various design issues related to the network layer.
  - b) Write in short about the various congesting control algorithms.
- 5.a) Discuss the essential elements of transport protocols.
  - b) What is UDP? Explain atleast two applications of UDP.
- 6.a) Describe the mechanism of an electronic mail.
  - b) Explain the importance of multimedia and bring out the relevance of multimedia for a computer network with an example.
- 7.a) What is cryptography? Differentiate between symmetric key and asymmetric key cryptography.
  - b) Enumerate the advantages of digital signatures.
- 8.a) Explain how pretty Good Privacy (PGP) provides e-mail security.
  - b) Discuss the various social issues related to internet and security technology.

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