

**Code No: A5803****JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD****M.Tech I Semester Examinations, October/November-2011****COMPUTER COMMUNICATIONS****(COMPUTER SCIENCE AND& ENGINEERING)****Time: 3hours****Max. Marks: 60**

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

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- 1.a) Discuss the design issues for the layers.
- b) What is principle of layers? Draw the OSI reference model. [6+6]
  
- 2.a) What do you mean by twisted pair? Discuss the difference between category-3 and category-5 twisted pair.
- b) Write an algorithm for computing the checksum. [5+7]
  
- 3.a) What is the difference between FDD (Frequency division duplexing) and TDD (Time division duplexing).
- b) What do you mean by scatternet? Explain Bluetooth Architecture. [6+6]
  
- 4.a) What is a store-and-forward packet switching? Explain.
- b) Compare virtual-circuit and data gram subnet. [6+6]
  
- 5.a) What is the difference between Transport Service Access Point (TSAP) and NSAP? Explain.
- b) Discuss the upward multiplexing and downward multiplexing. [6+6]
  
- 6.a) Explain the principle DNS resource record for IPV4.
- b) What is difference between Paper mail and E-mail? [6+6]
  
- 7.a) What are symmetric-key algorithms? And explain P-box and S-box.
- b) Explain the data encryption standards with examples. [7+5]
  
- 8.a) What is the difference between leased-line private network and virtual private network.
- b) Mention four general rules for designing of authentication protocol. [6+6]

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