

Code No: **RT41042****R13****Set No. 1****IV B.Tech I Semester Supplementary Examinations, March - 2017****COMPUTER NETWORKS****(Electronics and Communication Engineering)****Time: 3 hours****Max. Marks: 70***Question paper consists of Part-A and Part-B**Answer ALL sub questions from Part-A**Answer any THREE questions from Part-B*

PART-A (22 Marks)

1. a) Give advantages of a client server system using LAN over the big time sharing system. [3]
- b) List out the advantages and disadvantages of circuit switching. [3]
- c) List out the situations in which pure ALOHA and slotted ALOHA performs better. Justify your answer. [4]
- d) What is a Choke packet? How do they help in congestion control? [4]
- e) List out the transport layer service primitives and their meaning. [4]
- f) Discuss in brief about Transposition Ciphers. [4]

PART-B (3x16 = 48 Marks)

2. a) Explain the principle differences between connection-oriented communication and connectionless communication. [8]
- b) Which characteristics affect the quality of service offered by a network? Justify your answer with proper example. [8]
3. a) Explain in detail about broad band ISDN. [8]
- b) Describe about the architecture of ATM networks. [8]
4. a) Write about CSMA and CSMA/CD in detail. [8]
- b) What is the need for bridges? Explain the working of 802.x to 802.y bridges in detail. [8]
5. a) Explain in detail about broadcast and multicast routings. [10]
- b) What is the format of IPv4 header? Describe the significance of each field. [6]
6. a) Explain the Real Time Transport Protocol. [8]
- b) Discuss in detail about the connection establishment and release in TCP. [8]
7. a) What is authentication? Explain how the authentication is provided based on shared secret key? [8]
- b) Explain in detail about the MPEG standard for video compression. [8]