

Code No: **RT41042****R13****Set No. 1****IV B.Tech I Semester Supplementary Examinations, February/March - 2018****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) What is the difference between LAN and WAN? [3]  
b) Explain about the Radio Transmission. [3]  
c) What is the basic principle of learning bridge? [4]  
d) Describe Optimality Principle for Routing. [4]  
e) Explain about the TCP Congestion Control. [4]  
f) Discuss about the XHTML (eXtended HyperText Markup Language) [4]

**PART-B (3x16 = 48 Marks)**

2. a) Differentiate OSI reference model with the TCP/IP reference model. [8]  
b) Discuss briefly about the original ARPANET design [8]
3. a) What are the different classes of UTP? Explain. [8]  
b) Describe briefly about the circuit-switched networks. [8]
4. a) What is the need of Flow control? Explain the common approaches for flow control in data link layer. [8]  
b) Explain how slotted ALOHA solves the problem of Channel allocation. [8]
5. a) Illustrate Routing of Packets within Virtual Circuit Subnet. [8]  
b) Classify the static and dynamic routing algorithms? Explain the basic concept of flooding. [8]
6. a) With neat sketch, explain different layers of ATM. [6]  
b) Draw and explain each field in the TCP Segment header. [10]
7. a) What is DNS? What resource records are associated with it? Explain. [8]  
b) What are the five basic functions supported in e-mail systems? Explain. [8]