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

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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]