Code: 13A05601

B.Tech III Year II Semester (R13) Regular Examinations May/June 2016

COMPUTER NETWORKS

(Computer Science and Engineering)

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: $(10 \times 02 = 20 \text{ Marks})$
 - (a) What are the three types of redundancy checks used in data communications?
 - (b) What is congestion control?
 - (c) What is meant by flow control?
 - (d) Define passive and active attack.
 - (e) How is error controlled in data link controlled protocol?
 - (f) State different categories of CSMA/CD.
 - (g) Mention different random access techniques.
 - (h) Write the classification of IP addresses.
 - (i) What is the function of router?
 - (j) How transport layer performs duplication control?

PART - B

(Answer all five units, $5 \times 10 = 50 \text{ Marks}$)

UNIT – I

2 Discuss the ISO/OSI reference model in detail.

OR

3 Explain different network topologies in detail.

UNIT – II

4 Explain error detection and error correction techniques in detail.

OR

5 Explain about High-Level Data Link Control (HDLC) in detail.

(UNIT - III)

Write the network layer design issues in detail.

OR

What is routing? Explain the any three routing algorithms.

[UNIT - IV]

8 Write the finite state machine for stop-and-wait protocol with suitable example.

OR

9 What is TCP? Explain the services, features, state transition diagram, flow control and error control.

[UNIT - V]

10 Describe the standard client-server applications provided by application layer.

OR

- 11 Write a short note on:
 - (a) DNS.
 - (b) SNMP.
 - (c) TELNET.
