

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)

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- 1 Answer the following: (10 X 02 = 20 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 X 10 = 50 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**

- 6 Write the network layer design issues in detail.

**OR**

- 7 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.

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