

COMPUTER NETWORKS
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

- 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.
