

B.Tech III Year I Semester (R15) Supplementary Examinations June 2018

COMPUTER NETWORKS

(Common to CSE and IT)

Time: 3 hours

Max. Marks: 70

PART – A
(Compulsory Question)

1 Answer the following: (10 X 02 = 20 Marks)

- (a) Define networks.
- (b) What is data and signals?
- (c) Write note about error detection.
- (d) What is channelization?
- (e) How parity method can be used for error detection.
- (f) List the design issues in the network layer.
- (g) Write the function of transport layer.
- (h) What are the fields that are present in the UDP header?
- (i) What is the typical hardware configuration of a server machine?
- (j) What is POP in an email system?

PART – B
(Answer all five units, 5 X 10 = 50 Marks)**UNIT – I**

- 2 (a) Why layered approach is used for the design of computer networks.
- (b) Describe the concept of TCP / IP reference model.

OR

- 3 (a) Explain in detail about switching and its types.
- (b) What are the problems with wireless transmission?

UNIT – II

- 4 (a) What are the issues of data link layer? Explain.
- (b) Given the generator polynomial $x^3 + 1$ and bit polynomial $x^7 + x^5 + 1$, compute the checksum using the CRC method.

OR

- 5 (a) Explain the concept of HDLC.
- (b) What are the techniques for channelization?

UNIT – III

- 6 (a) Explain the principles of congestion control.
- (b) What is Distance vector in distance vector routing algorithm?

OR

- 7 (a) List and explain in detail the classes of IPV4 addresses.
- (b) What are the parameters for measuring quality of service?

UNIT – IV

- 8 Compare and contrast the concept in between UDP and TCP.

OR

- 9 Discuss in detail about the elements of transport layer.

UNIT – V

- 10 Elucidate the importance of client / server architecture.
What are the functions of user agent, message transfer agent and message access agent in e-mail system?

OR

- 11 Explain in detail about the DNS. Why DNS is implemented as distributed system?