

Code: 13A05601

B.Tech III Year II Semester (R13) Regular & Supplementary Examinations May/June 2017

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 do you mean by computer network? List any two applications of computer networks.
 - (b) Define the following with reference to network performance: (i) Bandwidth. (ii) Latency.
 - (c) Distinguish between error detection and error correction.
 - (d) What is the working principle of CSMA/CD?
 - (e) What are the design issues of network layer?
 - (f) What is congestion? State general principles of congestion control.
 - (g) List the elements of transport protocol.
 - (h) Write the applications of UDP.
 - (i) What is the purpose of DNS?
 - (j) Give brief note on client server programming.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 What is layered network system? Describe layered network architecture.

OR

- 3 Compare and contrast OSI model and TCP/IP model.

UNIT – II

- 4 Explain how Hamming code is used to detect and correct one bit error with an example.

OR

- 5 Draw HDLC frame format and explain each field.

UNIT – III

- 6 What is count-to-infinity problem? Discuss how it can be overcome.

OR

- 7 What is congestion control? Distinguish between leaky bucket algorithm and token bucket algorithm.

UNIT – IV

- 8 Discuss TCP transmission policy in detail.

OR

- 9 Draw and discuss the goals of IPV6 with neat sketch.

UNIT – V

- 10 Describe e-mail architecture and services.

OR

- 11 Write short notes on the following:

- (a) WWW.
- (b) TELNET.
- (c) Secure shell.
