Code: 13A05601

R13

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)

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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 budget 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.

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