PVP 14

Code: CS5T3

III B.Tech - I Semester – Regular Examinations – December 2016

COMPUTER NETWORKS
(COMPUTER SCIENCE AND ENGINEERING)

Duration: 3 hours Max. Marks: 70

PART – A

Answer ***all*** the questions. All questions carry equal marks

11x 2 = 22 M

1.

a) What is a bus topology? Draw a bus topology with three stations.
b) Define network. List the network criteria.
c) Define web-client. List any three popular web clients we use.
d) What is TELNET? List its advantages.
e) What is a port number? Mention the ranges of port numbers specified by ICANN.
f) What is piggybacking? List its advantages.
g) What is DHCP? Mention its role.
h) What is ICMPv4? List its roles.
i) Define checksum. List any two networks that use checksum as error detection.
j) Write short note on un-guided media.
k) Find the number of host IP addresses issued with *205.16.37.240 /28* network.

PART – B

Answer any ***THREE*** questions. All questions carry equal marks. 3 x 16 = 48 M

2. a) Compare and contrast OSI reference model with TCP/IP. 8 M

   b) Define switching. Explain circuit switched networks. 8 M

3. a) What is Electronic mail? Explain the process of sending and receiving mails. 8 M

   b) What is SSH? List and explain various components of SSH. 8 M

4. a) What is the role of *Selective-Repeat Protocol*? Explain the process of this protocol. 10 M

   b) Draw and explain TCP segment format in detail. 6 M

5. a) State and explain the services of network layer. 6 M

   b) Explain distance vector routing algorithm with an example. 10 M

6. a) What is CRC? Explain its method for error detection. 8 M

b) Differentiate pure ALOHA and slotted ALOHA protocols. 8 M