

Code: CS8T3B

IV B.Tech - II Semester - Regular Examinations - March 2018

TCP / IP
(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) Why has TCP / IP become a standard protocol for the Internet?
- b) What is the minimum and maximum size of an IP datagram?
- c) Which fields of the IP header change from router to router?
- d) Differentiate UDP and TCP
- e) List the various services of UDP.
- f) What is the difference between sequence number and acknowledgement number?
- g) What are the different types of criteria that can be specified using the Type of service field?
- h) Differentiate the opening and closing windows of flow control.
- i) List out the congestion control policy.
- j) State the difference between assigned and reserved Blocks.
- k) How many octets are there in Ethernet hardware address and IPv6 address?

PART – B

Answer any **THREE** questions. All questions carry equal marks.

3 x 16 = 48 M

2.a) Explain briefly TCP/IP Protocol suite. 6 M

b) How will you decide which class of IP address to use for a particular network? Use suitable example. Does the maximum number of hosts in a network, restrict the class of IP address that can be used for the network? 10 M

3.a) What are the different types of transport layer services? Explain briefly. 10 M

b) In cases where reliability is not of prime importance, UDP would make a good choice, Give two examples in support of it. 6 M

4.a) What is the main mechanism that TCP uses to create a reliable connection? Explain with the help of a diagram. 10 M

b) How does TCP handle multiplexing issue? 6 M

5.a) Why is host acknowledgement not necessary for the transmission of TCP segment? 6 M

b) What are the different types of acknowledgements used in error control of TCP? When does a receiver generate acknowledgement? 10 M

6.a) Explain about Neighbor-solicitation and advertisement message of ICMPv6. 8 M

b) Interpret the packet format of IPv6 protocol. 8 M