III B.Tech. I Semester Examination – June 2017

**COMPUTER NETWORKS**

Time: **3** hours (CSE/IT) Max. Marks: **60**

# SECTION – A

(Short Answer Questions)

**Answer all ten questions 10×1M=10M**

1. Give the IEEE standard name for Ethernet.
2. Define the term Protocol.
3. If m=10 then how many no. of redundant (parity) bits are to be added to the data in

hamming Code technique?

1. How can we compute throughput(S) in pure ALOHA with respect to traffic (G)?
2. With 8 clusters, each containing 9 regions of 10 routers, how many routing table entries are required for each router?
3. What is the significance of IP address 255.255.255.255?
4. The header size of UDP is ----------- bits
5. Give the port number of FTP.
6. What is role of resolver in DNS?
7. Draw the HTTP request and response formats..........

**SECTION – B**

**Answer all five questions 5×2M= 10M**

1. Mention the various topologies of LAN.
2. What are the design issues of data link layer?
3. What is Store – and – forward packet switching?
4. Explain UDP header.
5. Define broadcast routing.

**SECTION – C**

**Answer all four questions 4×5M = 20M**

1. Compare and contrast ISO-OSI & TCP/IP reference models.

**(OR)**

1. Distinguish Connection-oriented & Connection-less services.
2. Given a 10-bit sequence 1010011110 and divisor of 1011, find the CRC, Check your answer.

**(OR)**

1. Explain the byte stuffing framing technique with an example.
2. Categorize IP address formats and explain them.

**(OR)**

1. Compare and contrast datagram subnet with virtual-circuit subnet.
2. Describe Pure ALOHA & slotted ALOHA.

**(OR)**

1. Write a short note on binary countdown protocol.

**SECTION – D**

**Answer all two questions 2×10M= 20M**

1. Sketch and explain the TCP header format in detail.

**(OR)**

1. Explain TCP Sliding window management.
2. Explain the working of Domain Name System with example queries.

**(OR)**

1. What is the role of HTTP in the World Wide Web (WWW)?