

Code: CS6T1, EM6T3

### **III B.Tech-II Semester – Regular Examinations – April 2016**

## **COMPUTER NETWORKS**

**(Common for CSE, ECM)**

Duration: 3 hours

Max. Marks: 70

Answer any FIVE questions. All questions carry equal marks

1)

a) You have 2 computers connected by an ETHERNET hub at home. Is this a LAN, a MAN, or a WAN? State the justification. 7 M

b) Explain the layered architecture of OSI model and perform a data exchange using OSI Model? 7 M

2)

a) Explain the following electronic mail programs. 9 M  
i) SMP            ii) POP3            iii) MIME

b) What is the standard TCP/IP Protocol for Virtual Terminal service? Justify how this is useful for user remote logging. 5 M

3)

a) Write short notes on the following 9 M

- i) Congestion control in TCP
- ii) UDP Header

b) Briefly explain TCP connection Management. 5 M

4)

a) Compare and contrast the fields in the main headers of IPv4 and IPv6. Make a table that shows the presence or absence of each fields. 7 M

b) Differentiate between Reverse Path broadcasting (RPB) and Reverse Path multicasting (RPM). 7 M

5) Compare and contrast the following.

a) Flow control and error control 7 M

b) Bluetooth and WIMAX 7 M

6)

a) Briefly narrate the key characteristics of Digital and analog data transmission. 6 M

b) Write short notes on the following guided transmission media. 8 M

i) Coaxial cable

ii) Fiber –optic cable

7)

a) Explain Huffman coding mechanism. 7 M

b) Write short notes on Digital signatures and Firewalls? 7 M

8) Socket Programming is an approach of building an interface between application and network “Justify the statement in UDP perspective? 14 M