MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
A Constituent Institution of Manipal University

VI SEMESTER B.TECH. (INFORMATION TECHNOLOGY/COMPUTER AND COMMUNICATION ENGINEERING)

END SEMESTER EXAMINATIONS, APRIL 2017

SUBJECT: PROGRAM ELECTIVE I – NETWORK TECHNOLOGIES [ICT 332]

REVISED CREDIT SYSTEM
(27/04/2017)

Time: 3 Hours MAX. MARKS: 50

Instructions to Candidates:

❖ Answer any **FIVE FULL** questions.
❖ Missing data may be suitably assumed.

1A.	How does server multi-homing improve the performances of Data Center? What are the special features of Server Adapter?	5
1B.	What is community cloud? Explain with suitable example.	3
1C.	Derive and prove that the T3 data rate is higher than E3 carrier.	2
2A.	How do frame filtering and frame tagging work? What is the role of client-server model in VTP?	5
2B.	What are reasons for server performance degradation? How to increase it?	3
2C.	Compare the performances of IEEE 802.11a, 802.11b, and 802.11g.	2
3A.	What are goals and potential benefits of VoIP? What is the role of DSP in VoIP communication?	5
3B.	How do you solve the problem of looping issues in DVR?	3
3C.	How do you deploy Data Center network services?	2
4A.	How does PEAP fix the security problems? Also, explain the working of PEAP with diagram.	5
4B.	List and explain the mechanism to increase the performance of a server used for virtualization.	3
4C.	How does VPN and SSL help in Cloud Computing?	2

5A.	Explain disaster recovery planning and management of cloud computing.	5
5B.	List the characteristics of RTP and RTCP. What is the use of 32 bit synchronization source in RTP header?	3
5C.	Compare different failover models provided for load balancer.	2

6A.	How do you implement virtualization? Explain the processes involved in it.	5
6B.	Compare symmetric and asymmetric tunnelling in wireless communication.	3
6C.	What is spanning tree? Why do we need it?	2