MANIPAL INSTITUTE OF TECHNOLOGY
MANIPAL
A Constituent Institution of Manipal University

I SEMESTER M.TECH. (CSE/CSIS) DEGREE
END SEMESTER EXAMINATION-NOV/DEC 2017
SUBJECT: ADVANCED COMPUTER NETWORKS (CSE 5103)
REVISED CREDIT SYSTEM
(21/11/2017)

Time: 3 Hours   MAX. MARKS: 50

Instructions to Candidates:

❖ Answer **ALL** the questions.
❖ Missing data may be suitably assumed.

1A.	A DNS message is received with the flag value as 0X0503. Analyze it. Is it valid? Show the contents of Query name field. What is the size of the query message requesting the domain name for 185.34.221.12?	3M
1B.	Draw a neat diagram to illustrate the remote login operation of TELNET and explain the working of various entities at the client and server side. What is the drawback of TELNET? How is it overcome?	4M
1C.	What are the different file types and transmission modes supported by FTP?	3M
2A.	Distinguish between business policy and IT policy. Which type of policy is most suited for SDN? Explain.	3M
2B.	Describe openFlow protocol.	4M
2C.	Write the packet format and explain VXLAN protocol.	3M
3A.	What is openstack? Briefly explain any six components of openstack.	4M

3B.	Explain the following in the context of SDN:
	  i. Big Data and everything-as-a-service.
	  ii. Mobility Apps and Internet of Things.
		3M

3C.	Explain voice over IP with skype.	3M
4A.	Explain the different approaches used by VoIP to recover from packet loss.	3M
4B.	Describe Real Time Protocol.	4M
4C.	What are the advantages of optical networks? What do you mean by transparency in optical networks? Explain.	3M
5A.	What are the benefits of SONET/SDH? Briefly explain the elements of SONET/SDH infrastructure.	4M

5B. What is an optical crossconnect? What are its functions? 3M

5C. What are self healing rings? Explain the need for protection in IP layer. 3M

****