

END SEMESTER EXAMINATION December 2016 /January 2017 SUBJECT: COMPUTER NETWORKING AND COMMUNICATION PROTOCOLS (CSE 451)

TIME: 3 HOURS

MAX. MARKS: 50

Instructions to candidates

• Answer **ANY FIVE** full questions.

• Missing data may be suitably assumed.

1A.	Use Manchester encoding to encode the data 10100001.
1B.	Differentiate between TDMA, FDMA and CDMA.
	(5+5)
2A.	What are the pillars on which the principles of QoS have been designed? Explain them with suitable sketches.
2B.	Illustrate and explain the principle behind Dense Wave Division Multiplexing.
	(5+5)
3A.	With a suitable diagram, discuss about the TCP/IP protocol suite.
3B.	An image is 1024 x 768 pixels with 3 bytes/pixel. Assume the image is uncompressed. How long does it take to transmit it over a 56-kbps modem channel?
	(6+4)
4A.	How many subnets and hosts per subnet can you get from the network 192.168.115.0 255.255.255.248?
4B.	Explain the two types of twisted pair cables and give their specifications in detail.
	(5+5)
5A.	Describe the functional areas of network management.
5B.	Give a detailed note on the various Queuing mechanisms used to maintain QoS in networks.
	(5+5)
6A.	Differentiate between Expedited and Assured forwarding with an example for each technique.
6B.	Explain the SNMP data types in detail and give an application for each one of them.
	(5+5)