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M. Tech. 1st Semester (CSE) (CBCS Scheme)
Examination, November-2023
DATA COMMUNICATION AND COMPUTER
NETWORKS
Paper-MTCSE21C1

Time allowed : 3 hours] [Maximum marks : 100

Note: Question No. 1 is compulsory. Attempt any five questions by selecting one question from each unit. All questions carry equal marks.

- X. (a) Differentiate between Digital and Analog communication? What techniques come under these communications?
- (b) Explain global unicast addresses and their useless.
- (c) What is DHCP?
- (d) What do you understand by key management? Write the techniques for it.

Unit-I

2. Compare OSI and TCP/IP model.
3. What is Switching? Compare the advantages and limitations of packet switching, circuit switching, and message switching.

Unit-II

4. Discuss Classless Addressing and Classful Addressing in detail by taking a suitable example.

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5. State various Routing Algorithms in detail. Which algorithm is better and why?

Unit-III

6. What is SCTP Protocol? Write its SCTP services and SCTP features.
7. What are the services provided by the Application layer? Write and explain various protocols present on this layer.

Unit-IV

8. What is Digital Signature? Why do we adopt digital signatures? How is Digital Signature Validated and Secured?
9. What is Firewall? Discuss its types.

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