

SEC - C

6. Define switch. Describe the need for switching. List three traditional switching methods. Explain the circuit switching in detail. (20)

7. Explain in detail the concept of DQDB with the help of diagram. (20)

SEC - D

8. Explain OSI model in detail. Differentiate between OSI and TCP/IP model. Explain in detail about various layers of OSI model. (20)

9. Briefly describe ISDN architecture and objectives of ISDN. (20)

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Roll No.

22664

**M.Tech. 1st Semester (ECE)
CBCS Scheme Examination-
December, 2016**

DATA COMMUNICATION NETWORKS

Paper : MTECE21C5

Time : 3 hours **Max. Marks : 100**

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Q. No 1 is **compulsory**. Attempt total **five** questions selecting **one** question from each Section.

1. Answer the following :

- (a) Write short note on packet switching. (5)
- (b) What is data encoding ? (5)

(c) List the various transmission media used for transmission. (5)

(d) Write a brief note on token bus and token ring. (5)

SECTION - A

2. Explain the following terms: (20)

(a) Transmission Impedance

(b) Asynchronous transmission and synchronous transmission

3. (a) What is data coding and detection code? Explain with suitable examples. (15)

(b) Describe Bit rate, Bandwidth in detail. (5)

SECTION - B

4. (a) Explain in detail about data link protocol with neat architecture. (10)

(b) Discuss error control and flow control. (10)

5. (a) Out of FDM and TDM which one is better and why in terms of cost, efficiency, signal processing, security and no. of users. (10)

(b) Differentiate between synchronous and statistical TDM. Which one is better in terms of supporting number of users at the same transmission rate? (10)