

(b) Write note on TCP connection management. (10)

8. (a) What is congestion control mechanism? Explain congestion control mechanism. (10)
- (b) What do you understand by quality of service? (10)
9. (a) Explain UPN. (10)
- (b) What are issues involved in transmission layer security and application layer security? (10)

<https://www.ndupapers.com>

Roll No.

22638

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

**DATA COMMUNICATION AND COMPUTER
NETWORKS**

Paper : MTCSE21C1

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 **one** question from each Section.

- (a) Differentiate between slotted and pure ALOHA. (5 × 4 = 20)
- (b) Explain how OSI and ISO are related to each other.
- (c) Explain classful addressing.
- (d) Draw TCP format.

(e) What do you understand by Key management ?

SECTION - A

2. (a) Explain various transmission modes. (10)
(b) Write note on CSMA/CD and CSMA/CD ? (10)
3. Explain TCP/IP model in detail. (20)

SECTION - B

4. An ISP is granted a block of addresses starting with 150.80.0.0 to distribute these blocks as follows : (20)
- (a) The first group consists of 200 medium size businesses, each needs 128 addresses.
- (b) The second group consists of 400 small businesses, each needs 16 addresses.
- (c) The third group consists of 2000 households, each needs 4 addresses.

Design the subblocks and give the slash notation for each subblock. Find out how many addresses are still available after these allocations ?

5. (a) Describe path vector routing ? (10)
(b) What is OSPF and how does it work ? (10)

SECTION - C

6. Write note on the following : (4 × 5 = 20)
- (a) SMTP
(b) DHCP
(c) SSH
(d) IMAP
7. (a) Explain Transmission Control Protocol, its features, services and its working. (10)