# MSCCS 11 Data Communication and Networks
## SET : 1
## Section-A
### (Very Short Answer Questions)

1. (i) Define Full Duplex?
   (ii) Which frequency band is covered by Microwave?
   (iii) What is Wavelength?
   (iv) What are advantages of parity bit?
   (v) What is Time-to-live(TTL)?
   (vi) What is Cipher Text?
   (vii) List out advantage of NFS.
   (viii) What is the use of Ping command in ICMP?
   (ix) What is the need of Choke packet?
   (x) What is maximum size of UDP datagram?

## Section-B
### (Short Answer Questions)

2. What is modulation? Explain Error Detection Techniques.
3. Compare Frequency division multiplexing and Time division multiplexing.
4. Differentiate between TCP and UDP.
5. What is ATM Network? Write its applications
6. What is greedy Algorithm? How it is different than Dynamic Algorithm.
7. How to find minimal spanning tree. Discuss some algorithms with its complexity.
8. Explain the following:
   a. X.25
   b. Frame Relay
   c. Broadband ISDN
9. Explain CSMA/CD and its uses.

## Section-C
### (Long Answer Questions)

10. Differentiate between LAN, MAN and WAN.
11. What is transmission media? Discuss main categories of transmission media
12. Discuss Bellman – ford algorithm by taking a suitable example..
13. What do you mean by mutual exclusion? Discuss the algorithm for distributed mutual exclusion.

# MSCCS 11 Data Communication and Networks
## SET : 2
## Section-A
### (Very Short Answer Questions)

1.  (i) What is attenuation?
    (ii) What is multiplexing?
    (iii) What is hamming distance?
    (iv) What is tunnelling?
    (v) Define Autonomous System?
    (vi) What is Round Trip Time?
    (viii) Define Encryption.
    (viii) What is DNS?
    (ix) Give examples of classless IP addresses.
    (x) What do you mean by bandwidth?

## Section-B
### (Short Answer Questions)

2.  What is Modem? Explain its working
3.  Differentiate between packet switching and circuit switching.
4.  Give applications of point-to-point protocol.?
5.  What is FDDI? Explain in brief.
6.  Write the steps to compute the checksum in CRC code. Calculate CRC for the frame 110101011 and the generator polynomial $= x^4 + x + 1$ and write the transmitted frame
7.  Explain the term in detail with diagrams.
    1.) Hub        2.) Router            3.) Bridge            4.) Switch  .
8.  Compare IPv4 and IPv6.
9.  Write down the basic principle of congestion prevention policies.

## Section-C
### (Long Answer Questions)

10. Describe various LAN topologies used in computer communication.
11. Draw the layered architecture of OSI reference model. Explain in detail.
12. What is ISDN? Explain with its System Architecture
13. Explain working of slotted, pure ALOHA