

FACULTY OF INFORMATICS**M.C.A. II - Year II - Semester (Supplementary) Examination, January 2015****Subject : Computer Networks****Time : 3 Hours****Max. Marks: 80****Note: Answer one question from each unit. All questions carry equal marks.****Unit - I**

- 1 (a) Explain any two encoding Techniques.
 (b) Explain RS 232 Interface.

OR

- 2 (a) Write any four digital data to digital signals for given digital data 101100110.
 (b) Explain about
 (i) Coaxial cable (ii) Fiber optics (iii) Twisted pair

Unit - II

- 3 (a) Given message D =110101101, pattern 1010 calculate remainder using CRC.
 (b) Explain about ARQ mechanisms.

OR

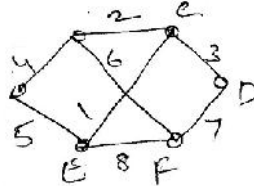
- 4 (a) What is a bridge? Explain about bridge and its operations.
 (b) Explain about CSMA / CD.

Unit - III

- 5 (a) Explain about CIDR.
 (b) Describe link state routing algorithm.

OR

- 6 Explain distance vector routing algorithm using the given data to generating table for 'C' for to the rate C form B(5, 0, 8, 12, 6, 2) from D (16, 12, 6, 0, 9, 10) from E(7, 6, 3, 9, 0, 4). The measured delays to B, D & E are 6, 3, 5 respectively.

**Unit - IV**

- 7 (a) Draw the header format of TCP and explain how each field is used in its operation.
 (b) Discuss about TCP transmission policy.

OR

- 8 (a) Explain the services of transport layer.
 (b) Explain timer management in TCP.

Unit - V

- 9 (a) Write RSA algorithm? How it can be used in message integrity and digital signatures.
 (b) What is encryption and decryption?

OR

- 10 (a) What is DNS and define resource records in detail?
 (b) Define digital signatures and explain PGP and PEM.
