Bachelor of Science (I.T.) Semester—III (C.B.S.) Examination
DATA COMMUNICATION AND NETWORK—I
Paper—III

Time : Three Hours]   [Maximum Marks : 50

N.B. :— (1) All questions are compulsory and carry equal marks.

(2) Draw suitable diagram wherever necessary.

EITHER

1. (A) Explain Electrical Noise and Signal to Noise ratio.   5

(B) What are Protocols ? Explain protocol standards.   5

OR

(C) Describe layered network architecture.   5

(D) Write notes on :—

(i) Bit rate

(ii) Baud rate.   5

EITHER

2. (A) Explain different advantages and disadvantages of optical fiber.   5

(B) What is Electromagnetic Spectrum ? Explain.   5

OR

(C) Write short notes on :—

(i) Pulse modulation

(ii) Companding.   5

(D) What is Propagation ? Explain propagation of light through optical fiber cable.   5

EITHER

3. (A) What is Electromagnetic polarization ? Explain.   5

(B) Write short notes on :—

(i) Communication code

(ii) Data formats.   5

OR

(C) What are Rays and Wavefronts ? Explain. 5

(D) Explain Microwave Communication Systems. 5

EITHER

4. (A) What is Collision ? Explain it with suitable example. 5

(B) Write short notes on :—

    (i) Logic link control sublayer

    (ii) Mac Sublayer. 5

OR

(C) Explain different transmission formats. 5

(D) Differentiate between access control and medium access control methodologies. 5

5. Attempt **ALL** :—

(A) What is digital modulation ? 2½

(B) Explain non-linear PCM code. 2½

(C) What is serial interface ? Explain. 2½

(D) Explain Ethernet. 2½