

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

Time : Three Hours]

[Maximum Marks : 50

Note :—(1) **ALL** questions are compulsory and carry equal marks.
 (2) Draw neat and labelled diagram wherever necessary.

EITHER

1. (a) Explain layered network architecture. 5
- (b) Explain process of demodulation. 5

OR

- (c) Explain various measures of noise checking. How can you remove noise from received data ? 5
- (d) Explain the stages of signal analysis. 5

EITHER

2. (a) Explain process of laser data transmission. 5
- (b) Differentiate Linear and non-linear PCM Codes. 5

OR

- (c) Explain working of wave propagation on metallic transmission lines. 5
- (d) Explain process of pulse code modulation. 5

EITHER

3. (a) Explain the terms wave attenuation and absorption. 5
- (b) Explain terrestrial propagation of electromagnetic waves. 5

OR

- (c) Explain error management on Wireless Communication System. 5
- (d) Explain Satellite Communication System. 5

EITHER

4. (a) Explain services of logic link control sub-layer. 5
- (b) Explain working of Ethernet. 5

OR

- (c) Explain working of MAC sub-layer. 5
- (d) What is Topologies collision and broadcast ? 5

5. Attempt **all** :—

- (a) Define and give characteristics of digital signal. 2½
- (b) Compare optical fibre methods. 2½
- (c) Explain serial interface in Wireless Communication System. 2½
- (d) What is IEEE project 802 ? 2½