

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/MANAGEMENT/
COMMERCIAL PRACTICE – APRIL -2019.

DATA COMMUNICATION

(Maximum Marks : 100)

[Time : 3 hours]

PART-A
(Maximum marks: 10)

Marks

I. Answer **all** questions in one or two sentences. Each question carries 2 marks.

1. Write about data communication.
2. Differentiate between analog and digital signals.
3. Differentiate between guided and unguided media with example.
4. List different wireless propagations.
5. Give an example of forward error correction methods.

(5x2=10)

PART - B
(Maximum Marks : 30)

II Answer any **five** of the following questions . Each question carries 6 marks.

1. Write brief description about different data flow methods.
2. Differentiate between point-to-point and multipoint connection.
3. Write a description about periodic signals.
4. Define multiplexing and write short notes about frequency division multiplexing with suitable diagram.
5. Write short notes on coaxial cables with diagram.
6. Give different types of errors with example.
7. Write short notes on random access channel allocation method-ALOHA.

[5x6 =30]

PART - C
(Maximum marks : 60)

(Answer *one full* question from each unit. Each full question carries 15 marks)

UNIT I

- III (a)** Write about topology and explain any two topologies with neat diagram. (8)
- (b)** Describe the components of data communication with diagram. (7)

OR

- IV** (a) List different layers in ISO OSI reference model with diagram and give functions of any two layers. (8)
- (b) Describe different categories of network. (7)

UNIT- II

- V** (a) Write short notes on (i) sine wave (ii) Phase (iii) Wave length (iv) time and frequency domains (v) bandwidth. (8)
- (b) Describe Pulse Code Modulation with suitable diagram. (7)

OR

- VI** (a) Write about serial data transmission and explain different classes of serial data transmission with diagram. (8)
- (b) Write the purpose of digital to analog conversion and explain any two digital to analog conversion methods with diagram. (7)

UNIT- III

- VII** (a) Explain the structure of fiber optic cable with neat diagram and give its advantages. (8)
- (b) Explain Radio wave wireless transmission and give its applications. (7)

OR

- VIII** (a) Explain Micro wave wireless transmission and give its applications. (8)
- (b) Write a brief description about any two switched networks. (7)

UNIT – IV

- IX** (a) Explain block coding with diagram. (8)
- (b) Explain the working of CSMA/CD. (7)

OR

- X** (a) Describe HDLC and transfer modes. (8)
- (b) Explain point-to-point protocol and its format. (7)
