

THIRD SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY — MARCH, 2015

DATA COMMUNICATION

(Common for CM, CT and IF)

[Time : 3 hours

(Maximum marks : 100)

Marks

PART—A

(Maximum marks : 10)

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Define LAN and WAN.
2. Define internet.
3. Define encoding.
4. List the type of errors in transmission.
5. Define polling.

(5x2=10)

PART—B

(Maximum marks : 30)

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

1. Explain the different noises in data transmission.
2. Compare guided and unguided transmission media.
3. Explain error correction techniques.
4. Explain about RS 232 standard.
5. Explain about roll call polling and hub polling.
6. Explain data encryption standards.
7. Explain parity check and CRC.

(5x6=30)

PART—C

(Maximum marks : 60)

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

UNIT – I

III Explain design issues of layered architecture. 15

OR

IV Explain TCP/IP protocol architecture. 15

UNIT – II

V Explain about ASK, FSK and PSK. 15

OR

VI Explain wireless communication – terrestrial, microwave and satellite communication. 15

UNIT – III

VII (a) Explain FDM and WDM. 9

(b) Explain HDLC. 6

OR

VIII (a) Explain TDM and synchronous TDM. 8

(b) Explain simplex, half duplex and full duplex communication. 7

UNIT – IV

IX Explain about substitution ciphers and transposition ciphers. 15

OR

X (a) Explain about digital signature. 8

(b) Explain about cryptography. 7