

TED (10)–3067

(REVISION—2010)

Reg. No.

Signature

THIRD SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/
TECHNOLOGY—OCTOBER, 2013

DATA COMMUNICATION

(Common for IF, CM, CT)

[Time : 3 hours

(Maximum marks : 100)

Marks

PART—A

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

1. Define Analog Transmission.
2. What is the function of data link layer in OSI model ?
3. What do you mean by uplink and downlink in satellite communication ?
4. What is multiplexing ?
5. What is substitution cipher ?

(5×2=10)

PART—B

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

1. Explain bus topology.
2. Describe thermal noise.
3. Explain AM, PM and FM.
4. Explain differential encoding. Give advantages.
5. Describe selective-reject-ARQ.
6. Explain the three data transfer modes defined by HDLC.
7. Describe transposition ciphers.

(5×6=30)

PART—C

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

UNIT – I

- III (a) Explain TCP/IP protocol architecture. 8
- (b) Describe different categories of noises. 7

OR

- IV (a) Explain the components of data communication. 8
- (b) Describe about transmission impairments. 7

UNIT - II

- V (a) Explain the construction characteristics and applications of co-axial cable. 8
 (b) Describe Ground wave propagation. 7

OR

- VI (a) Explain unshielded and shielded twisted pair cables. 8
 (b) Describe ASK. 7

UNIT - III

- VII (a) Explain half duplex and full duplex transmission. 8
 (b) List and briefly explain requirements for effective communication over a data link. 7

OR

- VIII (a) Describe FDM. 8
 (b) Explain CRC. 7

UNIT - IV

- IX (a) Explain virtual circuit approach in packet switching. 8
 (b) Describe polling and roll call polling. 7

OR

- X (a) Explain DES. 10
 (b) What are the advantages of datagram approach of packet switching ? 5

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