314318

12526

3 Hours / 70 Marks Seat No. | | | | | | | | |

Instructions – (1) All Questions are *Compulsory.*

(2) Illustrate your answers with neat sketches wherever necessary.

(3) Figures to the right indicate full marks.

(4) Assume suitable data, if necessary.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. Attempt any FIVE of the following : **10**

a) Define computer network and state its types.

b) Define bit rate and baud rate.

c) State any two types of unguided media.

d) List different types of errors.

e) List IEEE 802. X standards for networks. (Any four)

f) List any four network connecting devices.

g) List classes of IP addresses.

2. Attempt any THREE of the following : **12**

a) Explain different components of data communication with diagram.

b) Draw neat sketch of twisted pair cable and state its types.

c) Compare IPv4 and IPv6. (Any four points)

d) Draw and explain OSI model.

P.T.O.

Marks

3. Attempt any THREE of the following : **12**

a) Compare OSI and TCP/IP model. (Any four points)

b) Describe modes of communication.

c) Explain –

i) STAR topology

ii) Ring topology with suitable diagram.

d) List protocols related to all layers of OSI model.

4. Attempt any THREE of the following : **12**

a) Explain satelite communication with neat sketch.

b) Compare analog signal and digital signal. (Any four points)

c) Explain CRC with suitable example.

d) Differentiate between TCP and UDP. (Any four points)

e) Explain networking devices –

i) HUB

ii) Switch w.r.t layer, port, device type, speed

5. Attempt any TWO of the following : **12**

a) Explain multiplexing techniques.

b) Explain wireless LAN 802.11 architecture.

c) Compare between LAN, WAN and MAN (Any six points each)

6. Attempt any TWO of the following : **12**

a) Explain packet switching and circuit switching network with diagram.

b) Describe Bluetooth architecture technology.

c) Explain masking, subnetting and supernetting with example.

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