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2025

Time : 3 hours

Full Marks : 70

Candidates are required to give their answers in their own words as far as practicable.

The figures in the margin indicate full marks.

*Answer from **all** the Groups as directed.*

Group – A

(Objective Type Questions)

1. Choose the correct answer from the given alternatives : 1×5 = 5

   (a) HTTP stands for :

   (i) Hyper Text Transfer Protocol

   (ii) Hyper Text Transfer Permit

   (iii) Hyper Text Transfer Process

   (iv) None of these

   (b) TCP / IP stands for :

   (i) Transmission Control Protocol / Internet Protocol

(ii) Transport Control Protocol / Internet Protocol

(iii) Transmision Control Protocol / Internet Protocol

(iv) None of these

(c) PoP stands for :

(i) Pre office Protocol

(ii) Post office Protocol

(iii) Protocol of Post

(iv) None of these

(d) FDM stands for :

(i) Frequency Division Multiplexing

(ii) Frequency Division Multiple

(iii) Frequency Division Motion

(iv) None of these

(e) Number of Layer's in OSI Model :

(i) 6 Layers

(ii) 7 Layers

(iii) 5 Layers

(iv) 4 Layers

2. Fill in the blanks : $1 \times 5 = 5$

(a) Topology is also known as _____.

(b) CDMA / CS stands for _____.

(c) PCM stands for _____.

(d) A _____ is a device that transmission data over a network.

(e) OSI stands for _____.

Group – B

(Short-answer Type Questions)

3. Answer any **four** questions of the following : $5 \times 4 = 20$

(a) Describe the types of LAN topologies.

(b) Explain the types of Protocol with diagram.

(c) Differentiate between TDM and FDM.

(d) Differentiate between Serial transmission and Parrallel transmission.

(e) Differentiate between Circuit Switching and Pocket Switching.

(f) Explain any **two** of the following :

(i) Router

(ii) Stop and wait ARQ

(iii) PCM

(iv) Repenter

Group – C

(Long-answer Type Questions)

4. Answer any **four** questions of the following : 10×4 = 40

(a) What is OSI Model ? Describe different Layers of OSI Model with diagram.

(b) Explain Error Correction and Error Detection of Data link layer.

(c) Explain the handshaking method of transport layer.

(d) Describe the Error and Flow Control in transfer Layer.

(e) Describe the framing and flow control of the Data Link layer.

(f) Explain the following :

(i) MODEM

(ii) Go-back-n ARQ

(iii) TCP / IP Model