

INFT

SE - SEM IV C-Scheme May-June 14/05/26

Duration: 3 Hours.

2026 Total Marks: 80

N.B.:

- (1) Question No.1 is compulsory.
- (2) Attempt any three questions from the remaining five questions.
- (3) Make suitable assumptions wherever necessary but justify your assumptions.

Q.1 Solve the question.

- a) Compare connection and connectionless lossy protocol. (5)
- b) Compare bus and star topology (5)
- c) Explain Domain Name System (5)
- d) Explain in detail TCP timers (5)

Q.2 a) Explain OSI model of computer network with a neat diagram (10)

b) Explain IPv4 header format with its field (10)

Q.3 a) Explain in detail classful and classless IP address (10)

b) Explain CSMA protocol. Explain how Collision are handled in CSMA/CD (10)

Q.4 a) Draw the electromagnetic spectrum and Explain non guided media (10)

b) Explain TCP header with diagram (10)

Q.5 a) What is routing and Explain any interior routing protocol (10)

b) Explain in detail Go-back N protocol (10)

Q.6 Write short notes.(Any 4). (20)

- i) RPC
- ii) Leaky Bucket Algorithm
- iii) NAT
- iv) Selective repeat protocol
- v) Images compression
