

(FOR THE CANDIDATES ADMITTED

SUBJECT CODE **24 UCT 4A1**

DURING THE ACADEMIC YEAR 2024-25 ONLY)

REG.NO.

N.G.M.COLLEGE (AUTONOMOUS) : POLLACHI

END-OF-SEMESTER EXAMINATIONS : MAY– 2026

B.Sc. – COMPUTER TECHNOLOGY

MAXIMUM MARKS: 75

IV SEMESTER

TIME : 3 HOURS

PART – III

COMPUTER NETWORKS

SECTION – A

(10 X 1 = 10 MARKS)

ANSWER THE FOLLOWING QUESTIONS.

(K1)

1. A Metropolitan Area Network (MAN) typically spans_____
a) A single room b) A building c) A city d) A continent
2. Which guided medium is most commonly used in telephone networks?
a) Fiber optics b) Coaxial cable c) Twisted pair d) Magnetic media
3. Which of the following protocols is part of elementary data-link protocols?
a) TCP b) Stop-and-Wait c) IP d) UDP
4. What is the size of an IPv4 address?
a) 16 bits b) 32 bits c) 64 bits d) 128 bits
5. Which protocol is used to access web pages?
a) SMTP b) FTP c) HTTP d) Telnet

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES

(K2)

6. Construct a protocol hierarchy.
7. Define the magnetic media.
8. Explain the main advantage of Low Earth Orbit (LEO) satellites.
9. Define a routing algorithm.
10. Explain the function of DNS.

SECTION – B

(5 X 5 = 25 MARKS)

ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS. (K3)

11. a) List and explain the uses of computer Network.
(OR)
b) Compare connection oriented and connection_less services.
12. a) Describe the TCP/IP reference model.
(OR)
b) Show the Radio transmission working process.

(CONTD 2)

13. a) Compare medium earth orbit and low earth orbit.
(OR)
b) Interpret the satellite versus fiber in network view.
14. a) Sketch the IPV6 address with example.
(OR)
b) Describe a Quality-of-service process in detail.
15. a) Examine the E- Mail architecture.
(OR)
b) Describe the Telnet protocol.

SECTION – C (5 X 8 = 40 MARKS)
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.
(K4 (Or) K5)

16. a) Analyze LAN, WAN and MAN Architecture.
(OR)
b) Determine the Relationship of services to protocols .
17. a) Outline the OSI reference model with its function.
(OR)
b) Classify the twisted pair and coaxial cable.
18. a) Determine the error detection process with an example.
(OR)
b) Discuss the Sliding window protocol.
19. a) Analyze the distance vector routing algorithm with example.
(OR)
b) Discuss the elements of transport protocol
20. a) Examine the process of file transfer protocol.
(OR)
b) Point out a common network security threat observed in case studies.