(FOR THE CANDIDATES ADMITTED

DURING THE ACADEMIC YEAR 2021 ONLY)   REG.NO. :

21UCS 414

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

END-OF-SEMESTER EXAMINATIONS : MONTH AND YEAR

B.Sc.- COMPUTER SCIENCE (AIDED & S.F.)   **MAXIMUM MARKS: 70**

SEMESTER   IV   **TIME : 3 HOURS**

PART - III
DATA COMMUNICATION AND COMPUTER NETWORKS

SECTION - A   **(10 X 1 = 10 MARKS)**
ANSWER THE FOLLOWING QUESTIONS.

MULTIPLE CHOICE QUESTIONS.   **(K1)**
(Qn. No. 1 - 5)

1. _____ refers to mechanisms to correct and detect errors that occur in the transmission of frames.

    (A) Error Control   (B) Flow Control   (C) Both (a) & (b)   (D) None of the above

2. Which of the following is not a Routing Algorithm?

    (A) Bluetooth   (B) Flooding   (C) Distance Vector   (D) Link State

3. Which of the layers in OSI model are Network Support Layers?

    (A) Physical   (B) Data Link   (C) Network   (D) All of the above

4. The maximum size of payload field in Ethernet frame is _____

    (A) 1000 bytes   (B) 1500 bytes   (C) 1400 bytes   (D) 1200 bytes

5. _____ is an internet Standard protocol for managing devices on IP network.

    (A) SMTP   (B) SNMP   (C) IGMP   (D) BGP

ANSWER THE FOLLOWING IN ONE (OR) TWO SENTENCES   **(K2)**
(Qn. No. 6 - 10)

6. What are the examples of full duplex Communication?

7. Which transmission media provides the highest transmission speed in a Computer?

8. Which protocol is used in presentation Layer?

9. How are Networks Categorized?

10. What is IP address datagram?

SECTION – B   **(5 X 4 = 20 MARKS)**
ANSWER EITHER (a) OR (b) IN EACH OF THE FOLLOWING QUESTIONS.
(Qn. No. 11 to 15)10 questions (a & b) – 2 questions from each unit.   **(K3)**

11. a) Explain briefly the Transmission Media with a neat sketch.

(OR)

b) Write fundamental concept of data communication.

12. a) Describe the concept of Hybrid Topology.

(OR)

b) What are the advantages of Twisted Pair over Fiber Optic Cable? Explain.

13. a) What are the categories of Computer Networks? Explain.

(OR)

b) Give the details of Data Link Layer.

14. a) What are the functions of Wide Area Network? Explain.

(OR)

b) Write a short note on Metropolitan Area Network.

15. a) Draw and explain the various fields of TCP header format.

(OR)

b) Summarize the concept of window protocol with neat diagram.

SECTION - C   **(4 X 10 = 40 MARKS)**
ANSWER ANY FOUR OUT OF SIX QUESTIONS
(16th QUESTION IS COMPULSORY AND ANSWER ANY THREE QUESTIONS
(FROM Qn. No : 17 to 21)   **(K4 (Or) K5)**

16. Discuss in detail error detection and error correction.

17. Explain any two Routing algorithms with a neat Sketch.

18. What do you mean by Network Topology? Discuss the Mesh and Tree Topology.

19.   List the Distributed Queue Dual Bus in Network.

20. Differentiate between parallel and serial communication of satellites

21. Explain briefly ISDN architecture with illustrations and its interfaces.

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