Reg. No. ☐☐☐☐☐☐☐☐☐

III Semester B.C.A. 6 (NEP) Degree Examination,
December/January- 2024-25
COMPUTER COMMUNICATION AND NETWORKS
(Regular/Repeater)

Time : 2 Hours   **Maximum Marks : 60**

Instructions to Candidates :
  1) All sections are compulsory.
  2) Draw neat diagram wherever necessary.

SECTION - A

Answer any Ten of the following   **(10×2=20)**

1. List the applications of a computer Network.

2. What is a protocol? Give example.

3. Differentiate between guided and unguided medium.

4. Mention the characteristics of infrared transmission medium.

5. Define flow control.

6. Compute the parity bit for the following data unit to form the codeword using single parity check.

   i) 110011

   ii) 101010

7. What is piggy backing?

8. Define congestion.

9. What are adaptive routing algorithms?

10. What is DNS?

11. Mention any two network topologies.

12. What is a switch?

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SECTION - B

Answer any Four of the following.

(4×5=20)

13. Describe the working of simplex stop and wait protocol.

14. Write a brief note on local area Network.

15. Discuss Link state routing algorithm.

16. Explain the TCP header with a neat diagram.

17. Describe the co-axial cable transmission medium.

SECTION - C

Answer any Two of the following.

(2×10=20)

18. Explain in detail the OSI reference model.

19. a) What is multiplexing? Explain frequency Division multiplexing. (6)

    b) Compute the CRC bits for the following data unit:

    $$m(x) = 100100 \quad g(x) = 1101$$ (4)

20. a) Describe the Leaky bucket algorithm for congestion control. (5)

    b) Write short note on (any one): (5)

    i) E-mail

    ii) www

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