

'समानो मन्त्रः समितिः समानी'

UNIVERSITY OF NORTH BENGAL

B.Sc. Programme 3rd Semester Examination, 2023

DSC1/2/3-P3-COMPUTER SCIENCE

COMPUTER NETWORKS

Time Allotted: 2 Hours Full Marks: 60

The figures in the margin indicate full marks.

GROUP-A

Answer any four questions

 $3 \times 4 = 12$

- 1. What are the two types of protocols used in Transport Layer? Describe briefly.
- 2. List the three types of addresses in TCP/IP.
- 3. What is the function of transmission media?
- 4. Explain router with its usage.
- 5. Differentiate between Half-duplex and Full-duplex.
- 6. Differentiate between analog and digital signals.

GROUP-B

Answer any four questions

 $6 \times 4 = 24$

- 7. How is Cat5 cable better than Cat3? Justify.
- 8. Describe different wireless signalling techniques.
- 9. What is CSMA? List the protocols used with CSMA.
- 10. Discuss the different protocols present in TCP/IP reference model.
- 11. Compare different network switching techniques.
- 12. Compare IPv4 and IPv6 addressing.

GROUP-C

Answer any two questions

 $12 \times 2 = 24$

- 13. Explain in detail any one error detection cum correction Technique.
- 14. Discuss connection-oriented virtual circuit switching with the help of examples.
- 15. Discuss different types of topologies with their advantages and limitations.
- 16. Discuss OSI reference model.

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