

COMPUTER NETWORKS

Time Allowed: 03 Hrs

BC-401

Max. Marks: 60

Note: Attempt all questions from Section–A and any four questions from Sections-B.

Section A

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| 1(a) | What are advantages of digital data communication over analog data communication? | 2 |
| (b) | Explain the principle of microwave transmission. | 2 |
| (c) | What are various functions of data link layer? | 2 |
| (d) | Define CDMA. | 2 |
| (e) | What is optimality principle? | 2 |
| (f) | What is internetworking? | 2 |
| (g) | What is leased line? What are its advantages? | 2 |
| (h) | What is serial data transmission? How it is different from parallel data transmission. | 2 |
| (i) | What is bit stuffing? Explain. | 2 |
| (j) | What is broad band? What are its advantages? | 2 |

Section B

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| 2 | What is multiplexing? Explain different types of multiplexing. | 10 |
| 3 | Define communication channel. Explain various guided network media with their relative advantages and disadvantages. | 10 |
| 4 | What is switching? Explain the differences between circuit switching, message switching and packet switching. | 10 |
| 5 | What is network topology? Explain merits and demerits of bus, star, ring and mesh topology? | 10 |
| 6 | What is OSI model? Discuss the functions of various layer of OSI model. Explain how an OSI model is different from TCP/IP model? | 10 |
| 7 | Write note on the following:- | 10 |
| | <ul style="list-style-type: none">• IEEE standards.• Routing algorithms• SLIP• HDLC | |