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Total Pages: 2

### BT-6/M-23

## 46166

# COMPUTER NETWORKS Paper-PC-CS-304A

Time: Three Hours] [Maximum Marks: 75

Note: Attempt any five questions, selecting at least one question from each unit.

#### UNIT-I

- 1. (a) What are the advantages and disadvantages of wired and wireless networks? (6)
  - (b) Explain layers of TCP/IP architecture, (9)
- 2. (a) What are different network topologies. (9)
  - (b) Discuss various transmission impairments at physical layer. (6)

### UNIT-II

- 3. (a) What are flow control protocols? Discuss with diagram working of sliding window protocol and selective repeat ARQ. (9)
  - (b) What are the functions of switches and routers? At which layer of the OSI-RM do these operate? (6)
- 4. (a) Explain how error is detected and corrected in digital transmission. (9)

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|          |     | persistent CSMA-CD. (6)                                   | ) |
|----------|-----|---|---|
|          | 50  |   |   |
| UNIT-III |     |   |   |
| 5.       | (a) | What does IEEE 802.x standard indicate? Give five         | ? |
|          |     | different examples and their purpose under this series    | 3 |
|          |     | of IEEE standards. (9)                                    | ) |
|          | (b) | Describe the working of IPv6 protocol. (6)                |   |
|          | , , |   |   |
|          |     |   |   |
| 6.       | (a) | Describe ICMP protocol and various messages in it.        |   |
|          | . , | (9)   | ) |
|          | (b) | Explain the unicast and multicast routing protocols.      | _ |
|          | (-) | (6  | 1 |
|          |     |   | , |
|          |     | UNIT-IV   |   |
| 7.       | (a) | Discuss various distinguishing features of TCP. (9)       | 1 |
|          | (b) |   |   |
|          | (0) | Explain the importance of user authentication, integrity  |   |
|          |     | and cryptography. (6)                                     | ) |
| ^        |     |   |   |
| 8.       | (a) | Explain the working of firewall. Describe different types |   |
|          |     | of firewall configurations. (9)                           |   |
|          | (b) | Describe the working of DNS protocol including chair      | 1 |
|          |     | of DNS servers.   | ) |

(b) Give the working of p-persistent, 1-persistent and non-