

Dr. Babasaheb Ambedkar Open University
Term End Examination February – 2026

Course	: BCA	Date	: 20-Feb-2026
Subject Code	: BCAN-301	Time	: 11:30am to 01:45pm
Subject Name	: Introduction to Computer Network	Duration	: 02.15 Hours
		Max. Marks	: 70

Section A

Answer the following (Attempt any three) (30)

1. Differentiate between OSI and TCP/IP models.
2. Explain WAN Interface Information in detail.
3. Explain Configuration Management in Computer networks.
4. Explain the various functions of a Network Management System (NMS).
5. Explain the major communication devices which are frequently used in computer networking.

Section B

Answer the following (Attempt any four) (20)

1. What are protocols? Why are they important in computer networks?
2. List and explain the advantages of networking.
3. What is frame relay? Explain its working and applications.
4. Write a note on circuit switching.
5. Discuss WAN protocols in brief.
6. Why is there a need for speed tests in understanding network performance?

Section C

Part – A (Multiple Choice Questions) (10)

Q-1. Which of the following is NOT an advantage of computer networking?

- | | |
|------------------------------|--------------------------------|
| A) Resource sharing | B) Better communication |
| C) Increased data redundancy | D) Centralized data management |

Q-2. The OSI model has how many layers?

- | | |
|------|------|
| A) 5 | B) 6 |
| C) 7 | D) 8 |

Q-3. Which protocol is mainly used for web browsing?

- | | |
|---------|---------|
| A) FTP | B) HTTP |
| C) SMTP | D) SNMP |

Q-4. IEEE 802.11 standard is related to:

- | | |
|-------------------------|--------------|
| A) Ethernet | B) Bluetooth |
| C) Wireless LAN (Wi-Fi) | D) WAN |

Q-5. Which frequency band generally provides better coverage but lower speed?

- | | |
|-----------|------------|
| A) 5 GHz | B) 2.4 GHz |
| C) 10 GHz | D) 8 GHz |

- Q-6. Which topology connects devices in a circular fashion?
A) Bus
B) Ring
C) Star
D) Mesh
- Q-7. Frame Relay is used in:
A) LAN
B) WAN
C) PAN
D) MAN
- Q-8. Which address is used to uniquely identify a device in a TCP/IP network?
A) MAC Address
B) IP Address
C) Port Address
D) URL
- Q-9. Which of the following is a network management function?
A) Fault management
B) Configuration management
C) Performance monitoring
D) All of these
- Q-10. In socket programming, which of the following is used to establish a reliable connection?
A) UDP
B) TCP
C) ICMP
D) ARP

Part – B (Do as Directed)

(10)

State the following statements are TRUE or FALSE

- 1 Networking allows sharing of resources like printers and files.
- 2 The OSI model consists of 5 layers.
- 3 Bluetooth technology is standardized under IEEE 802.11.
- 4 LAN usually covers a larger geographical area than WAN.
- 5 TCP is a connection-oriented protocol.
- 6 NetBIOS provides services related to session layer of OSI model.
- 7 A router is used to connect multiple networks together.
- 8 High-speed networks can be tested using benchmarking methods like file download tests.
- 9 A wireless router is an example of a communication medium.
- 10 UDP provides reliable, connection-oriented communication.
