

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

Course	: BCAR	Date	: 20-Feb-2026
Subject Code	: BCAR-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. Explain the various characteristics of transmission media with suitable examples.
2. Discuss in detail different types of modems. Also explain DSL and its types.
3. Describe the concept and types of Twisted Pair cables.
4. Explain various types of Network Switches and their features.
5. Define and differentiate Baseband and Broadband communication with examples.

Section B

Answer the following (Attempt any four) (20)

1. What is attenuation? How does it affect transmission?
2. Define bridge and explain its types.
3. Describe Guided and Unguided transmission media with examples.
4. Differentiate between Unshielded Twisted Pair (UTP) and Shielded Twisted Pair (STP).
5. Write a note on Network Interface Card (NIC) and its types.
6. What is EMI and how can it be avoided?

Section C

Part – A (Multiple Choice Questions) (10)

- 1 Transmission Media supports which layer of OSI Model?
A Network Layer B Data Link Layer
C Transport Layer D Physical Layer
- 2 The term DSL stands for:
A Data Signal Line B Digital Subscriber Line
C Digital Signal Level D Dynamic Signal Line
- 3 The function of a repeater is to:
A Filter data B Compress data
C Amplify signals D Transmit signals at higher speed
- 4 Which of the following is a guided transmission media?
A Infrared B Twisted Pair
C Radio Waves D Microwave

- 5 The bandwidth is expressed in:
A Mbps B Hz
C Ohms D Bytes
- 6 A switch operates at which OSI layer?
A Physical B Data Link
C Transport D Application
- 7 What does attenuation refer to?
A Loss of packets B Increase in signal
C Loss of signal strength D Compression of data
- 8 Which device connects different network architectures?
A Router B Switch
C Bridge D Gateway
- 9 Which cable offers the highest bandwidth?
A Twisted Pair B Coaxial
C Fiber Optics D USB
- 10 Baseband transmission is:
A Analog B Digital
C Mixed D Irregular

Part – B (Do as Directed)

(10)

State the following statements are TRUE or FALSE

- 1 Full form of LAN.
- 2 Define bandwidth in one sentence.
- 3 Name one wireless transmission medium.
- 4 State full form of MODEM.
- 5 Write any one characteristic of UTP cable.
- 6 Give one example of electromagnetic interference.
- 7 Convert 5 Mbps to Kbps.
- 8 Peer to peer architecture means.
- 9 Full form of OSI.
- 10 One advantage of fiber optic cable.
