

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

Course	: BCA	Date	: 21-Feb-26
Subject Code	: BCAMA-302	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 Introduction to Networking. Describe components of networking and different computing models of networks.
2. Explain Intranets and Internets. Discuss network services such as file services, file transfer services, printing services, and application services.
3. Explain the fundamentals of communication theory with suitable diagrams.
4. Explain Standards and Standard Organizations. Describe the communication process in computer networks.
5. Explain the OSI Reference Model and the functions of each layer.

Section B

Answer the following (Attempt any four) (20)

1. Explain the IEEE 802 family of standards.
2. Describe transmission media used in networking.
3. Explain cable media and wireless media with advantages and disadvantages.
4. Explain TCP/IP model and compare it with the OSI model.
5. Explain network topologies with suitable diagrams.
6. Write a short note on switching and routing in networks.

Section C

Part – A (Multiple Choice Questions) (10)

- 1 Which device connects different networks together?
A Hub B Router
C switch D Repeater
- 2 How many layers are there in the OSI model?
A 5 B 6
C 7 D 8
- 3 Which IEEE standard is used for Ethernet?
A IEEE 802.3 B IEEE 802.11
C IEEE 802.16 D IEEE 802.15
- 4 Which transmission media provides highest bandwidth?

- | | | |
|----|--|-----------------|
| | A Twisted pair | B Coaxial cable |
| | C Optical fiber | D Radio wave |
| 5 | Which protocol is used for reliable data transfer? | |
| | A UDP | B IP |
| | C HTTP | D TCP |
| 6 | Which topology uses a central device? | |
| | A Bus | B Ring |
| | C Star | D Mesh |
| 7 | Which network service allows sharing of printers? | |
| | A File service | B Print service |
| | C Application service | D Web service |
| 8 | Which OSI layer is responsible for routing? | |
| | A Network layer | B Data layer |
| | C Transport layer | D Session layer |
| 9 | Wireless LAN standard is: | |
| | A IEEE 802.3 | B IEEE 802.5 |
| | C IEEE 802.11 | D IEEE 802.16 |
| 10 | Which device works at data link layer? | |
| | A Router | B Switch |
| | C Gateway | D Modem |

Part – B (Do as Directed)

(10)

- 1 Define computer network.
- 2 What is intranet?
- 3 Expand OSI.
- 4 Name any one standard organization.
- 5 What is transmission media?
- 6 Define TCP/IP.
- 7 Name any one connectivity device.
- 8 What is topology?
- 9 Define switching.
- 10 Define routing.
