



Avinashilingam Institute for Home Science and Higher Education for Women
(Deemed to be University under Category 'A' by MHRD, Estd. u/s 3 of UGC Act 1956)
Re-accredited with 'A++' Grade by NAAC. Recognised by UGC Under Section 12B
Coimbatore - 641 043, Tamil Nadu, India

Bachelor's Degree Examination – Supplementary November 2025
Semester IV

Class: III UG (Supplementary)

Time: 3 Hours

Major/Branch: Computer Applications

Max. Marks: 100

23BCAC07 Computer Networks

Course outcomes:

1. Discuss the basic rudiments of networking concepts.
2. Analyze in detail and understood the basic idea of different protocol.
3. Analyze routing, packet switching and routing algorithms concepts.
4. Recognize the services of connectionless and connection oriented protocols.
5. Assess the internet domains and its services.

Part A

10 x 1 = 10

Choose the Correct Answer

1. The transmission which has the highest transmission speed in a network is _____ CO1K1
a. Attenuation b. Propagation c. Scattering d. Interruption
2. Links that can be used in both directions at the same time, like a two-lane road, are called _____ CO1K1
a. Half-duplex b. Simplex c. Full-duplex d. Dual
3. In TCP-IP model, when data is send from device A to Device B, the 5th layer to receive the data at B is _____ CO2K2
a. Application layer b. Transport layer c. Link Layer d. Session layer
4. In parity bit error-detection code, when 1011010 is sent in even parity, what will be the data after adding the parity bit? CO2K3
a. 10110101 b. 010110101 c. 10110100 d. 110110101
5. In infrastructure mode, each client is associated with an _____ that is in turn connected to the other network. CO3K1
a. Access Point b. Router c. Ethernet d. Adhoc point
6. The basic unit of a Bluetooth system is a _____. CO3K1
a. Scatternet b. Active node c. Slave node d. Piconet
7. This manages the tables and makes the routing decisions layer is a true end-to-end layer. CO4K2
a. Switching algorithm b. Linking algorithm c. Routing algorithm d. Session algorithm
8. IP addresses were divided into the five categories and this allocation is called as _____. CO4K3
a. Classful addressing b. Special Addressing c. NAT d. Extension Addressing
9. Spell out TPDU. CO5K1
a. Transport Data Unit b. Transport Protocol Data Unit
c. Transport Datagram Unit d. Transport Digital Unit
10. In the internet, _____ are the end points. CO5K2
a. Access points b. Ports c. Sockets d. Bus

Part B

5 x 6 = 30

Each answer should not exceed 400 words or two pages

- 11.a. Compare ISO/OSI reference model and TCP/IP model. CO1K4
(Or)
- 11.b. Summarize the guided transmission media. CO1K2
- 12.a. Explain any two framing methods. CO1K2
(Or)
- 12.b. Explain Utopian simplex protocol. CO2K2
- 13.a. Discuss about Simplex Stop-and-Wait Protocol for Error-Free Channel and Noisy Channel CO2K2
(Or)
- 13.b. Explain pure and slotted ALOHA. CO3 K2
- 14.a. What is routing algorithm? Mention the types of routing algorithms. CO4K2
(Or)
- 14.b. Explain flooding. CO4K2
- 15.a. Explain addressing in transport protocols. CO5K2
(Or)
- 15.b. Discuss UDP header with a diagram. CO5K2

Part C

5 x 12 = 60

Each answer should not exceed 800 words or four pages

- 16.a. Explain the layered architecture of OSI model. CO1K2
(Or)
- 16.b. Discuss the various error detecting codes. CO2K2
- 17.a. Explain Sliding Window Protocols. CO2K2
(Or)
- 17.b. Summarize CSMA protocols. CO3K2
- 18.a. Explain the architecture and protocol stack of Bluetooth. CO3K2
(Or)
- 18.b. How connection-oriented and connectionless services are implemented in network layer? Explain. CO4K4
- 19.a. Discuss distance vector routing. CO4K2
(Or)
- 19.b. Describe multicasting. CO4K2
- 20.a. Explain the role of transport layer in connection establishment and connection release. CO5K4
(Or)
- 20.b. Discuss the architecture and services of electronic mail. CO5K2