



*K. Sambath*

**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. Category I by UGC Coimbatore  
- 641 043, Tamil Nadu, India

**Continuous Internal Assessment - I February 2026**  
**II Semester**

**23BCSC07 Computer Networks**

**Class : II UG**

**Time: 2 hours**

**Major: Computer Science**

**Max.Marks:60**

**Course Outcomes:**

**CO1: Explain the reference models of networks and fundamentals of networks**

**CO2: Describe the switching mechanisms**

**CO3: Analyse the Data Link Layer functions and the protocols associated with it**

**CO4: Analyse the Multiple Access protocols and the functions of the network layer**

**CO5: Outline the Transport Layer and Application Layer Functions and Protocols**

**Part A**

**(6x1 = 6)**

**Choose the correct answer**

1. In the \_\_\_\_\_ transmission mode, communication is unidirectional. CO1 K2  
(a) Simplex (b) Half-duplex (c) Full-duplex (d) Full
2. Three or more devices share a link in \_\_\_\_\_ connection. CO1 K2  
(a) Unipoint (b) Multipoint (c) Point to point (d) Peer-peer
3. This device in the physical layer is used to boost the signal. CO2 K2  
(a) Repeater (b) Router (c) Gateway (d) Switch
4. What is the technology used in circuit switching? CO2 K2  
(a) Datagram (b) Virtual Circuit (c) Space Division (d) Multiplexer
5. What is the cable used in traditional cable TV system? CO2 K2  
(a) Coaxial (b) Twisted Pair (c) Fiber optic (d) Copper
6. How many errors can be detected by simple parity check? CO3 K1  
(a) Odd number (b) even no (c) Multiple (d) no errors

**Part B**

**Answer all questions**

**(3 x 6 = 18)**

**Each answer should not exceed 400 words or two pages**

7. a. Write about (i) network topologies and (ii) the Classification of networks. CO1 K2  
(Or)  
b. Identify the advantages of optical fiber over traditional copper cables. CO1 K2
8. a. Explain multiplexing techniques in detail. CO1 K2  
(Or)  
b. Explain Pulse Code Modulation in detail. CO1 K2
9. a. Compare circuit switching and Packet Switching techniques. CO2 K2  
(Or)  
b. Explain the architecture of DSL with a neat diagram. CO3 K2

**Part C**

**Answer all Question**

**(3 x 12 = 36)**

**Each answer should not exceed 800 words or four pages**

10. a. Elaborate on the functionalities of the seven layers of OSI. CO1 K2  
(Or)
- b. Explain the TCP/IP architecture and compare it with the OSI model. CO1 K2
11. a. Explain Digital Line Encoding methods in detail. CO1 K2  
(Or)
- b. Explain the Datagram and Virtual Circuit Switching networks in detail with diagrams and compare. CO2 K2
12. a. Elaborate on sliding window protocols. CO3 K2  
(Or)
- b. Explain the frame structure and types of framing in detail. CO3 K2

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**Faculty in-Charge: Dr.B.Sarojini & Mrs.S.Preema**

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