



**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

**Continuous Internal Assessment - II APRIL 2025**  
**Semester IV**

**Class : II UG**

**Time: 2 hours**

**Major: Computer Science**

**Max.Marks:60**

**23BCSC07 –Computer Networks**

**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)**

**Answer all questions**

**Circle the correct answer**

1. Which of the following is used to connect two networks, especially if they use different protocols? CO3K2  
A. Router B. Bridge C. Gateway D. Repeater
2. A 100Base-T Ethernet LAN has a data rate of \_\_\_\_\_ Mbps. CO3K2  
A. 10 B. 100 C. 1000 D. 1
3. \_\_\_\_\_ is a broadcast routing Algorithm CO4K2  
A. Flooding B. BGP C. Bellman Ford D. OSPF
4. Which of the following is a connectionless protocol at the Transport Layer? CO4K2  
A. TCP B.UDP C. SCTP D. HTTP
5. Which of the following protocols is used for sending emails? CO5K2  
A. FTP B. HTTP C. SMTP D. POP3

6. Which protocol is responsible for performing the fragmentation and reassembly of packets?  
CO5K2
- A. TCP    B. UDP    C. IP    D. ARP

**Part B**

**Answer all questions**

**(3 x 6 = 18)**

7. a. Explain the working principle of CSMA/CD protocol. CO3\_K2  
(Or)  
b. Write about interconnecting devices and their functionalities. CO3\_K2
8. a. Explain the steps to build link state routing table CO4\_K2  
(Or)  
b. Explain the IP header format CO4\_K2
9. a. Write about World Wide Web CO5\_K2  
(Or)  
b. Elaborate on HTTP Protocol. CO5\_K2

**Part C**

**Answer all Question**

**(3 x 12 = 36)**

- 10 a. Describe in detail various CSMA protocols CO3\_K2  
(Or)  
b. Elaborate on Connecting LAN and Back-Bone Networks CO3\_K2
11. a. Explain distance vector routing with an example. CO4\_K2  
(Or)  
b. Explain in detail the Internet Control Message Protocol. CO4\_K2
- 12.a. Describe the features of the TCP protocol CO5\_K2  
(Or)  
b. Elaborate the working of DNS with diagram CO5\_K2

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**Faculty in-Charge: Dr.B.Sarojini & Divya D**

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