Avinashilingam Institute for Home Science and Higher Education for Women

(Deemed to be University Estd. u/s 3 of UGC Act 1956, Category 'A' by MHRD)[now MoE]
Re-accredited with 'A++' Grade by NAAC CGPA 3.65/4, Category I by UGC
Coimbatore - 641 043, Tamil Nadu, India

Continuous Internal Assessment Test I – February 2026
IV Semester

Class: II UG **Time: 2 hours**
Major: Computer Applications **Maximum Marks: 60**

23BCAC07 Computer Networks

Course Outcomes:
At the end of the course, students will:
1. Discuss the basic rudiments of networking concepts.
2. Analyze in detail and understood the basic idea of different protocols.
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 **6 x 1 = 6**
Choose the Correct Answer

1. The fundamental purpose of a computer network is _____. CO1 K1
   a. sharing resources b. storing data c. performing calculations d. enhancing security
2. The type of network covers a large geographical area, like a city, country, or the world is __ CO1 K1
   a. LAN b. MAN c.WAN d.PAN
3. Parity bits are used to _____. CO2 K1
   a. encrypt data b. detect error c. identify user d. decrypt data
4. The task which is not done by data link layer is _____. CO2 K1
   a. framing b. error control c. flow control d. channel coding
5. The size of MAC Address is _____. CO3 K1
   a. 16 bits b.32 bits c.48 bits d.64 bits
6. The primary purpose of channel allocation in computer networks is _____. CO3 K1
   a. to manage network devices b. to allocate bandwidth to users
   c. to ensure data security d. to establish connections

Part - B **3 x 6 = 18**
Answer ALL Questions
Each answer should not exceed 400 words or two pages

7.a. Write the comparison of OSI and TCP/IP. CO1 K2
(or)
7.b. Explain on Fourier series decomposition. CO1 K3

8.a. The data send is 100100. CRC generator is 1101. Check using CRC method whether the data received has errors or not. CO2 K3
(or)
8.b. Discuss one bit sliding window protocol. CO2 K2

9.a. Explain channel allocation problem-static and dynamic in brief. CO3 K2
(or)
9.b. Discuss briefly on classic Ethernet. CO3 K2

Part - C **3 x 12 =36**
Answer ALL Questions
Each answer should not exceed 800 words or four pages

10.a. Explain in detail on OSI reference model. CO1 K2
(or)
10.b. Explain guided and unguided transmission media. CO1 K2

11.a. Explain in detail on the design issues of the data link layer. CO2 K2
(or)
11.b. Discuss on elementary data link protocols. CO2 K2

12.a. Elaborate on MAC Sublayer protocol. CO3 K2
(or)
12.b. Explain Ethernet performance and types in detail. CO3 K2