



Avinashilingam Institute for Home Science and Higher Education for Women

Deemed to be University Estd.u/s 3of UGC Act 1956, Category A by MHRD [now MoE]

Re-accredited with an A++ Grade by NAAC CGPA 3.65/4, Category I by UGC

Coimbatore-641043, Tamil Nadu, India

Continuous Internal Assessment II –April-2025

Semester II

Class : I MCA

Time: 2 hour

Major: Computer Applications

Max.Marks:60

23MCAC11 Data Communication and Networks

Course Outcomes:

CO1: Explain the layered communication architectures and its functionalities.

CO2: Assess the network switching techniques.

CO3: Appraise various error detection & correction techniques and flow control protocols.

CO4: Analyze the MAC and network layer protocols.

CO5: Outline the Transport layer and Application layer functions and Protocols

Part A

(6x1 = 6)

Answer all questions

Circle the correct answer

1. PPP is a ----- protocol. CO4-K1
a. bit-oriented b. byte-oriented c. noisy channel d. noiseless channel
2. CSMA is CO3-K2
a. Carrier Send Many Access b. Carrier Save Multiple Access
c. Communication Sense Multiple Access d. Carrier Sense Multiple Access
3. The speed of Fast Ethernet is CO3-K2
a. 10 Mbps b. 100 Mbps c. 10 Gbps d. 100 Gbps
4. LAN segments are connected by CO4-K3
a. Wires b. Switches c. Repeaters d. Hubs
5. TCP is used with ----- layer. CO5-K2
a. Transport b. Application c. Network d. Session
6. Select from the following the invalid component contained in HTTP response CO5-K2
a. Header b. Flag c. Status d. Body

Part B

Answer all questions

(3 x 6 = 18)

Answer should not exceed 400 words

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|--|------|--------|
| 7. a) Explain briefly protocols used for Noiseless channels. | (or) | CO3-K2 |
| 7. b) Write about CSMA Access modes. | | CO4-K2 |
| 8. a) Explain the key features of Ethernet. (or) | | CO3-K3 |
| 8. b) Name the protocols used in Network layer and their functions. | | CO4-K3 |
| 9. a) List the various services provided by Transport layer and explain.(or) | | CO5-K2 |
| 9. b) Explain three way Handshake mechanism. | | CO5-K3 |

Part C

Answer all. Answer should not exceed 600 words

(3 x 12 = 36)

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|---|------|---------|
| 10. a) Discuss in detail Noisy channel protocols. | (or) | CO3-K3 |
| 10. b) Explain the various Multiple Access Protocols. | | CO4-K3 |
| 11.a) Explain the functions of any six connecting devices. | (or) | CO4-K2 |
| 11.b) Discuss in detail the classification of Routing Algorithms. | | CO4-K2 |
| 12.a) Discuss DNS in detail. | (or) | CO5-K23 |
| 12.b) Explain www and http protocols in detail. | | CO5-K3 |

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Staff in-charge:(I.ELIZABETH SHANTHI)
