



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 2025 Semester-II

Class: I PG
Major: Computer Applications

Time: 2 hours
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

- Distance communication is termed as ----- communication. CO1K1
a. long b. short c. tele d. fibre
- Connection of devices is network's ----- CO1K1
a. topology b. speed c. traffic d. data transfer
- Rules governing the data communication is called CO1K2
a. syntax b. protocol c. semantic d. Phase
- Data bits movement is the responsibility of ---- layer. CO2K1
a. Application b. Physical c. Network d. Datalink
- Bandwidth used in Telephone Network for data is CO2K2
a. 2400 Hz b. 2600 Hz c. 3000 Hz d. 3300 Hz
- Select the incorrect step in PCM. CO3K2
a. sampling b. quantization c. binary encoding d. modulation

Part B

Answer all questions

(3 x 6 = 18)

Answer should not exceed 400 words

- | | |
|---|-------|
| 7. a) Explain any two network topology with suitable diagrams. (or) | CO1K2 |
| 7. b) Explain the categories of networks. | CO1K2 |
| 8. a) Write a note on TCP/IP protocol suite. (or) | CO2K3 |
| 8.b) Explain ASK and FSK. | CO2K3 |
| 9.a) How does DSL function? (or) | CO2K2 |
| 9.b) List any three Error Detection and correction techniques. Explain briefly. | CO3K3 |

Part C

Answer all. Answer should not exceed 600 words

(3 x 12 = 36)

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|---|-------|
| 10. a) Discuss the ISO-OSI network model with neat sketches. (or) | CO1K3 |
| 10. b) Explain the various Digital to Analog modulation techniques. | CO1K3 |
| 11.a) Discuss the various switching techniques. (or) | CO2K2 |
| 11.b) Discuss Datagram Versus Virtual Circuit switching techniques. | CO2K3 |
| 12.a) Discuss the features of DSL and Cable TV. (or) | CO2K3 |
| 12.b) Explain in detail the Framing and Flow control function of Data Link Layer. | CO3K3 |

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