CBCS SCHEME - Make-Up Exam

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BCS502

Fifth Semester B.E./B.Tech. Degree Examination, June/July 2025
Computer Networks

Time: 3 hrs. Max. Marks: 100

Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. M : Marks , L: Bloom's level , C: Course outcomes.

		Module – 1	M	L	C
Q.1	a.	Explain different data flow (simplex, half-duplex, and full-duplex) modes with suitable examples.	10	L4	CO1
	b.	With a neat diagram explain functionalities of TCP/IP reference model architecture.	10	L2	CO1
		OR			
Q.2	a.	Briefly explain types of Guided Media (Twisted pair, Coaxial cable, and Fiber optics) with suitable applications.	10	L2	CO1
	b.	Explain datagram networks with suitable diagrams.	10	L2	CO1
		Module – 2			
Q.3	a.	What are the types of errors, explain Hamming distance and minimum hamming with suitable examples.	10	L2	CO2
	b.	Define linear block coding and CRC algorithm with suitable examples.	10	L2	CO2
		OR			
Q.4	a.	Example HDLC protocol with suitable diagrams.	10	L2	CO2
	b.	Explain flow diagram for the CSMA/CD protocol.	10	L2	CO2
		Module – 3			
Q.5	a.	Explain virtual-circuit packet switched network with suitable diagram.	10	L2	CO3
	b.	Explain DHCP message format and option format with suitable diagrams.	10	L2	CO3
		OR			
Q.6	a.	Describe open-loop congestion control (prevention) and closed-loop congestion control (removal) in detail.	10	L2	CO3
	b.	Explain message format of RIP and its performance.	10	L2	CO3
		Module – 4			
Q.7	a.	Discuss difference between Go-Back-N and selective repeat protocols.	10	L2	CO4
	b.	Explain TCP three - way Handshaking process with suitable diagram.	10	L2	CO4
		OR			
Q.8	a.	Explain TCP segment format with suitable diagrams.	10	L2	CO4
	b.	Explain congestion avoidance additive increase with suitable diagram.	10	L2	CO4
		Module – 5			
Q.9	a.	Explain types of network application architectures with a suitable diagrams.	10	L2	CO5
	b.	Explain HTTP protocol formats of the request and response messages.	10	L2	CO5
		OR			
Q.10	a.	Write short notes on cookies.	10	L2	CO5
	b.	Explain components of SSH and its packet format with suitable diagram.	10	L2	CO5

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