Session: Even semester, 2021 (Jan-June)

Semester: 2nd

Course Title: Data Communication and Computer Networks

Course Code: INF2016

Class	Unit	Topics
Class 1	Unit I: Introduction	Data representation, Data transmission, Transmission channels
Class 2	Unit I: Introduction	Signal encoding, Transmission impairments
Class 3	Unit I: Introduction	Transmission media: Guided transmission media (*Twisted pair, Coaxial and Optical fiber)*
Class 4	Unit I: Introduction	Wireless transmission (*Terrestrial microwave, satellite microwave, Broadcast Radio and Infrared)*
Class 5	Unit II: Transmission Modes	Asynchronous and Synchronous transmission
Class 6	Unit II: Transmission Modes	Baseband and Broadband transmission
Class 7	Unit II: Transmission Modes	Modulation methods
Class 8	Unit II: Transmission Modes	Modems, Multiplexing
Class 9	Unit III: Evolution of Computer Networks	Circuit switching, Development of packet switching: 1961-1972
Class 10	Unit III: Evolution of Computer Networks	Proprietary networks and internetworking: 1972-1980, Proliferation of networks: 1980-1990. The internet explosion: 1990s
Class 11	Unit IV: Network Standards and protocols	The IEEE standards, OSI 7 layer model
Class 12	Unit IV: Network Standards and protocols	TCP/IP protocol suit
Class13	Unit IV: Network Standards and protocols	Data Link Layer: Frame design

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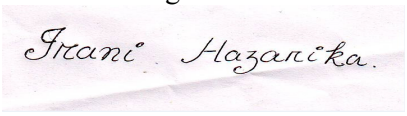

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Class	Unit	Topics
Class 14	Unit IV: Network Standards and protocols	Data Link Layer: Flow control
Class 15	Unit IV: Network Standards and protocols	Data Link Layer: Error handling
Class 16	Unit IV: Network Standards and protocols	HDLC
Class 17	Unit IV: Network Standards and protocols	PPP
Class 18	Unit IV: Network Standards and protocols	Sliding window protocol
Class 19	Unit IV: Network Standards and protocols	Sliding window protocol
Class 20	Unit IV: Network Standards and protocols	Sliding window protocol
Class 21	Unit V: Different Network Layers	Network Layer: IP
Class 22	Unit V: Different Network Layers	X.25, Frame Relay, ATM
Class 23	Unit V: Different Network Layers	Routing
Class 24	Unit V: Different Network Layers	Routing
Class 25	Unit V: Different Network Layers	Routing

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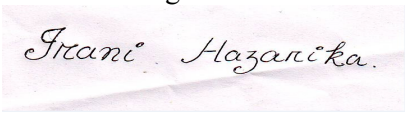

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Class	Unit	Topics
Class 26	Unit V: Different Network Layers	Routing
Class 27	Unit V: Different Network Layers	Queuing theory
Class 28	Unit V: Different Network Layers	Transport Layer: TCP
Class 29	Unit V: Different Network Layers	UDP
Class 30	Unit V: Different Network Layers	Congestion control
Class 31	Unit V: Different Network Layers	Flow control
Class 32	Unit V: Different Network Layers	Socket interface
Class 33	Unit V: Different Network Layers	Application Layer: SNMP
Class 34	Unit V: Different Network Layers	Authentication
Class 35	Unit V: Different Network Layers	Encryption
Class 36	Unit V: Different Network Layers	Web and HTTP
Class 37	Unit V: Different Network Layers	FTP, Email
Class 38	Unit V: Different Network Layers	DNS Remote
Class 39	Unit V: Different Network Layers	Network File System (NFS) and File sharing

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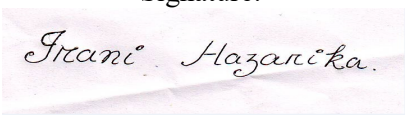

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Class	Unit	Topics
Class 40	Unit V: Different Network Layers	Procedure Calling (RPC)
Class 41	Unit VI: Introduction to LAN, Architecture and Technology	Local Area Network (LAN): Needs, Architecture and Technology
Class 42	Unit VI: Introduction to LAN, Architecture and Technology	Ethernet: CSMA/CD operation, parameters and specifications
Class 43	Unit VI: Introduction to LAN, Architecture and Technology	Cabling: 10Base5, 10Base2, 10BaseT, 10BaseF
Class 44	Unit VI: Introduction to LAN, Architecture and Technology	Hubs, patch panels and wiring closets
Class 45	Unit VI: Introduction to LAN, Architecture and Technology	Bridges, Switches, 100BaseT, 100BaseVGANY
Class 46	Unit VI: Introduction to LAN, Architecture and Technology	Gigabit Ethernet. FDDI
Class 47	Unit VI: Introduction to LAN, Architecture and Technology	Token Ring, Wireless, ISDN, B-ISDN
Class 48	Unit VII: Wireless LAN, Network Management and Security	VSAT technology

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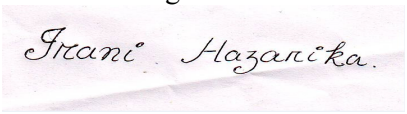

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Class	Unit	Topics
Class 49	Unit VII: Wireless LAN, Network Management and Security	Wireless LAN: Technologies
Class 50	Unit VII: Wireless LAN, Network Management and Security	IEEE standards and protocols
Class 51	Unit VII: Wireless LAN, Network Management and Security	Basics of Network management and Security
Class 52	Unit VII: Wireless LAN, Network Management and Security	Infrastructure for network management and security

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