GLA UNIVERSITY, MATHURA

IMMERSION PLAN for COMPUTER NETWORKS

S.No	Week	Topic	Sub-Topic
1	1	Physical Layer	Network Topology Design
2			Network structure and architecture, OSI reference model
3			Basic idea of Multiplexing
4			Physical Layer Transmission Media
5			Switching methods
6			Connecting devices
7	2	Data Link Layer (MAC Sublayer)	Medium Access sub layer - Channel Allocations
8			ALOHA protocols
9			CSMA, CSMA/CD
10			CDMA
11	3	Data Link Layer (Logical Link Control Sublayer)	Overview of IEEE standards
12			Point to Point protocol
13			Error detection and correction
14			CRC and Checksum
15			Flow control: Simplest and Stop and Wait
16			Stop and Wait ARQ
17			GoBack N
18			Selective Repeat
19	4	Network Layer	Routing
20			IP addressing
21			Internetworking
22			Subnetting
23			Address mapping
24			Introduction to IPv6
25			Transition from IPv4 to IPv6
26	5	Transport Layer and Session layer	Design issues
27			Connection management
28			Flow control
29			TCP window management
30			Congestion control-slow start algorithm
31	6	Application Layer	File Transfer
32			HTTP
33			Electronic mail,SMTP
34			TELNET,Virtual Terminals,DNS
35	7	Security	Encryption
36			Substitution & Transposition Techniques
37			Symmetric Key Cryptography
38			Asymmetric Key Cryptography