

LESSON PLAN

CSE 3251: COMPUTER NETWORKS

Total Credit : 03
 Total Marks : 75
 Total no of Weeks : 13
 Final Exam : 52½ (70% of total marks)
 Part- A — 26¼
 Part- B — 26¼
 Quiz/CT : 15 (20% of total marks)
 Attendance : 7½ (10% of total marks)

Course Teacher : Dr. ASIF ZAMAN, Professor, CSE RU
 Class Room : As mentioned in class routine.
 Class Schedule : As mentioned in class routine.

Weeks	Contents	Materials
1	Fundamental Ideas about Computer Networks,	https://tinyurl.com/asifzaman3180-lec
2	Computer Networks and Applications, OSI reference model, TCP/IP model and terminology, Connectionless and Connection Oriented services, Service primitives, The ARPANET	
3	Physical Layer: Circuit switching and Packet switching, X-25 protocol, Frame relay and Cell relay, ATM reference model.	
4	CLASS TEST-1	
5	Medium Access Sublayer: Pure and slotted ALOHA, Persistent and Non-persistent CSMA, CSMA with collision detection and collision free protocols, IEEE standard 802.3 and Ethernet.	
6	Data Link Layer: Types of errors, framing, error detection & correction methods; Flow control, Stop & wait ARQ, Go-Back- N ARQ, Selective repeat ARQ, HDLC.	
7		
8	Network Layer: Internet address, classful address, subnetting, static vs. dynamic routing, shortest path algorithm, flooding, distance vector routing, link state routing, ARP, RARP, IP, ICMP.	
9		
10	Transport Layer: UDP, TCP, Connection management, Addressing, Establishing and Releasing Connection, Congestion control algorithm, Flow control and Buffering, Multiplexing.	
11	Presentation Layer: Data Compression techniques, Frequency Dependent Coding, Context Dependent Encoding.	
12	Presentation Week	
13	Application Layer: Internet and intranets, Internet services and goals, DNS, SMTP, FTP, Telnet, HTTP, World Wide Web (WWW), DHCP and BOOTP. Networking in Practice: Designing LAN, Cabling, Establishing Client- Server network, Configuring: Directory Server, Proxy server, FTP server, E-mail server, web server, DB server, Firewall, Network troubleshooting, network maintenance, network monitoring, Network programming.	