

Bhoj Reddy Engineering College for Women: Hyderabad

Department of Information Technology

Lesson plan of faculty member for the academic year 2016–17

Class: III B Tech

Branch-Section: IT - A

Semester: I

Subject: Computer Networks

Lectures per week: 4+1 (Tutorial)

Lecture Number	Topics to be covered	Date (s)
UNIT – I: OSI Model		
1	Introduction	13 June 2016
2	Overview of internet, protocols	14 June 2016
3	Layering scenario, TCP/IP Protocol Suite	16 June 2016
4	Introduction to OSI Model	18 June 2016
5	Tutorial (G1, G2, G3) - OSI Model	13, 17, 18 June 2016
6	Layers of OSI Model	20 June 2016
7	Internet history standards & administration	22 June 2016
8	Comparison of OSI & TCP/IP reference model	23 June 2016
9	Physical Layer- Guided Transmission media	25 June 2016
10	Tutorial (G1, G2, G3) - TCP/IP Model	20, 24, 25 June 2016
11	Wireless transmission media	27 June 2016
12	Data link layer-CRC Codes	29 June 2016
13	Elementary Data Link Layer Protocols	30 June 2016
14	Sliding Window Protocol	2 July 2016
15	Tutorial (G1, G2, G3)– Revision of physical and data link layer	27 June, 1, 2 July 2016
UNIT – II: Data Link Layer		
16	Multiple Access protocols	4 July 2016
17	ALOHA , CSMA	9 July 2016
18	Tutorial (G1, G2, G3)– ALOHA,CSMA	4, 8 ,9 July 2016
19	Collision free protocols ,Ethernet -physical layer	11 July 2016
20	Multiple Access Protocols, Ethernet – MAC sub layer	13 July 2016
21	Data link layer switching & use of Bridges	14 July 2016
22	Learning bridges	16 July 2016
23	Tutorial (G1, G2, G3)– MAC Sub layer	11, 15, 16 July 2016
24	Spanning tree bridges	18 July 2016
25	Repeaters, hubs	20 July 2016
26	Bridges, switches	21 July 2016
27	Routers & gateways	23 July 2016
28	Tutorial (G1, G2, G3) – Important questions of unit -II	18, 22, 23 July 2016
UNIT-III: Network Layer		
29	Network layer design issues	25 July 2016
30	Store and forward packet switching	27 July 2016
31	Connection less & connection oriented networks	28 July 2016
32	Routing algorithms Design issues	30 July 2016
33	Tutorial (G1, G2, G3)– Packet switching	25, 29 ,30 July 2016
34	Routing algorithms Design issues	3 August 2016
35	Optimality principle	4 August 2016
36	Shortest path	6 August 2016
37	Tutorial (G2, G3) – Congestion Algorithms	5, 6 August 2016
38	Flooding	17 August 2016
39	Distance vector routing,	18 August 2016
40	Count to infinity, Hierarchical routing	20 August 2016
41	Tutorial (G2, G3) –shortest path	19, 20 August 2016
42	Congestion control Algorithms, Admission control	22 August 2016
UNIT-IV: Transport Layer		

43	Internetworking - Tunneling	24 August 2016
44	Internetwork Routing	27 August 2016
45	Tutorial(G1, G2, G3) – Revision of Protocols	22, 26, 27 August 2016
46	Packet fragmentation	29 August 2016
47	IPv4 protocol	31 August 2016
48	IPv6 protocol	1 September 2016
49	IP Addresses, CIDR	3 September 2016
50	Tutorial(G1, G2, G3) - IPv4 protocol	29 August, 2, 3, September 2016
51	IMCP, DHCP	7 September 2016
52	ARP, RARP	8 September 2016
53	Transport layer	10 September 2016
54	Tutorial (G2, G3) – ARP, RARP	9, 10 September 2016
55	Services to upper layers elements	14 September 2016
56	Connection establishment	15 September 2016
57	Connection release	17 September 2016
58	Tutorial (G2, G3) - Connection Release	16, 17 September 2016
59	Crash Recovery	19 September 2016
UNIT-V : Application Layer		
60	Internet transport protocols - UDP	21 September 2016
61	Real time transport protocols	22 September 2016
62	Introduction to TCP	24 September 2016
63	Tutorial (G1, G2, G3) - UDP protocol	19, 23, 24 September 2016
64	TCP service model	26 September 2016
65	TCP segment header	28 September 2016
66	Connection establishment,	29 September 2016
67	Tutorial (G1, G3) – TCP header	26 September 2016, 1 October 2016
68	TCP Connection release TCP segment header	3 October 2016
69	TCP Connection management modeling	5 October 2016
70	Tutorial (G1) - Congestion control	3 October 2016
71	TCP sliding window	27 October 2016
72	TCP congestion control , Future of TCP Congestion Control	29 October 2016
73	Tutorial (G2, G3)- Application layer	28, 29 October 2016
74	Application layer- introduction	31 October 2016
75	Providing services Application layer paradigms Client server model	2 November 2016
76	HTTP, FTP, TELNET, DNS, SSH	3 November 2016
77	Tutorial (G1) - Standard client-server application Client server model	31 October 2016

Text books:

1. Data communications and networking- Behrouz A Forouzan, 5th edition TMH 2013.
2. Computer Networks- Andrew S Tanenbaum, 4th edition, Pearson Education

Name and signature of the faculty: T.S. Suhasini ----

Name and signature of Head of the Department: G Srinivas Rao ----