

DEPARTMENT OF CS&E.

COURSE PLAN

Department : Computer Science & Engg
 Subject : Network Protocols (CSE-304)
 Semester & branch : VISEm. CS&E
 Name of the faculty : Dr. Krishnamoorthi Makkithaya
 Dr. Harish S.V
 Mr. Manamohana K
 Ms. Janani
 No of contact hours/week : 04

Assignment portion	
Assignment no.	Topics
1	L1 - L8
2	L9 - L16
3	L17 - L29
4	L30-L39
5	L40-L48
Test portion	
Test no.	Topics
1	L1 - L18
2	L19 - L39

Submitted by:

Dr. Krishnamoorthi Makkithaya

(Signature of the faculty)

Date: 10-01-2015

Approved by:

(Signature of HOD)

Date:

Lecture no	Topics to be covered
1	Introduction , classful Addressing, Recognizing Classes
2	Classful addressing: Netid and Hostid, Classes and Blocks , Network addresses, Sufficient Information
3	Classful addressing: Mask, CIDR notation,Address Depletion. Other issues.
4	Private Addresses, Subnetting
5	Classless Addressing
6	Variable-length Block
7	Subnetting
8	Address Allocation, Problems
9	IP Intro, datagram
10	Fragmentation
11	Options,
12	checksum
13	IP Package
14	ARP-Introduction, Encapsulation, Operation
15	ARP Package, RARP-Introduction, Packet Format
16	Encapsulation , RARP Server
17	ICMP-Types Of messages, message format, error reporting
18	Query, Checksum, Debugging Tools
19	Mobile IP Addressing, agents
20	Three phases, Inefficiency in mobile IP
21	UDP: Process to process communication, User datagram
22	Checksum, UDP operation
23	UDP Package
24	TCP-Intro, TCP services
25	TCP features, segment
26	TCP Connection, State Transition diagram
27	Flow Control, Error Control ,Congestion control
28	TCP timers, options,
29	TCP Package
30	SCTP services
31	SCTP features
32	Packet format , association
33	State transition diagram
34	Flow control, error control
35	Congestion control
36	DNS- Name space, Domain Name space, Distribution of name space,

	DNS in the Internet, Resolution
37	DNS messages , types of records, compression , DDNS , Encapsulation
38	Telnet –Concept, NVT, NVT Character Set, Embedding, Options
39	Option Negotiation , Suboption Negotiation, Controlling the server, Out of band signaling, Escape character, mode of operation , user interface, Security Issues
40	FTP
41	FTP contd
42	TFTP
43	TFTP contd
44	HTTP: Transaction, Persistent versus non-persistent, proxy server
45	IPV6 –Intro, address space assignment
46	Packet Format, Comparison between IPv4 &IPv6
47	ICMPV6-Intro,error reporting , Query
48	Transition from IPv4 to IPv6

Text Books:

1. Behrouz A. Forouzan “TCP/IP Protocol Suite”, TMH, 4th Edition, 2005.

References:

1. W.R Stevens, TCP/IP Illustrated, Volume 1: The Protocols, Addison Wesley, 1994.
2. Peter Loshin, IPV6 Clearly Explained, Morgan Kauffman, 1999.
3. C.E. Perkins, Mobile IP Design Principles and Practices, Addison Wesley Wireless Communications Series, 1998.