

# HARYANA COLLEGE OF TECHNOLOGY AND MANAGEMENT ,KAITHAL

## Lesson plan

VI SEMESTER IT JAN-MAY 2009

### Course Handout of Computer Network

#### Details regarding the course lesson plan

Course No.: IT-358

Course Title: Computer Network

Instructor-in-charge: Er. Bhupinder Kaur

#### Course Website

Sessional: 40 Marks

Exam: 100 Marks

Total: 140 Marks

Duration of Exam: 3 Hrs.

Text Book:

1. Tanenbaum. "Computer Networks", PHI

#### Reference Books:

1. Darlx, "Computer Network and their protocols", DLA Labs.
2. Freer, "Comp. Communication and Networks", East – West-Press.
3. Data Communications, Computer Networks and open systems (4<sup>th</sup> Edition).
4. Halsall Fred, 2000, Addison Wesley, low price Edition.
5. Business data communications, Fitzgerald Jerry.
6. Computer Networks – A system approach, Larry L. Peterson & Bruce S. Davie, 2<sup>nd</sup> Edition.
7. Computer Networking – ED Title, 2002, T.M.H.

#### 3. Lecture Schedule

Lecture	Topics	Date
Lecture 1	1 Basics of Computer Networks, need and Evolution of computer networks	09/02/09
Lecture 2	Basics terminology of Computer Networks	10/02/09
Lecture 3	LAN & WAN devices – Router, Bridge Ethernet switch HUB,	11/02/09
Lecture 4	OSI Reference Model	13/02/09
Lecture 5	Functions of each layer, Services and Protocols of each Layer	16/02/09
Lecture 6	Internet Protocol, Transmission control protocol, User Datagram Protocol	17/02/09
Lecture 7	IP Addressing, IP address classes, Subnet addressing	18/02/09
Lecture 8 .	Internet control Protocols,	20/02/09
Lecture 9	ARP, RARP, ICMP, application layer, Domain Name System	21/02/09
Lecture 10	Email-SMTP, POP, IMAP, FTP, NNTP, HTTP, SNMP, TELNET	24/02/09
Lecture 11	OSI and TCP/IP model with description of data encapsulation & peer to peer communication	25/02/09
Lecture 12	Test of UNIT -I	27/02/09
Lecture 13	Physical Layer: Representation of a bit on physical modem	02/03/09
Lecture 14	Encoding/Modulation – TTL, Manchester Encoding	03/03/09
Lecture 15	AM, FM and PM. Dispersion, Jitter, Latency and Collision Lecture	04/03/09

Lecture 16	Different types of media	06/03/09
Lecture 17	twisted pair, unshielded twisted pair, coaxial cable, optical Fiber cable	07/03/09
Lecture 18	Data Link Layer: LLC and MAC sub layer	09/03/09
Lecture 19	Revision,Test of UNIT -II	10/03/09
Lecture 20	framing error control and flow control	11/03/09
Lecture 21	Error detection & correction CRC Lecture 23 Dynamics and Dynamics strategy.	20/03/09
Lecture 22	block codes parity and checksum, elementary data link protocol	21/03/09
Lecture 23	sliding window protocol, channel allocation problem-static and dynamic	23/03/09
Lecture 24	Multiple Access protocol- ALOHA	24/03/09
Lecture 25	CSMA/CD, Token bus, token ring, FDDI	25/03/09
Lecture 26	Network Layer: Segmentations and autonomous system path determination	27/03/09
Lecture 27	network layer data gram, IP addressed Classes.	31/03/09
Lecture 28	Sub netting – Sub network, Subnet Mask	01/04/09
Lecture 29	Routing algorithm-optionally principle, Shortest path routing	04/04/09
Lecture 30	hierarchical routing, Broadcast routing, Multicast routing, routing for mobile host	06/04/09
Lecture 31	Routing protocol- RIP, IGRP, OSPF and EIGRP	07/04/09
Lecture 32	Test of UNIT-II	08/04/09
Lecture 33	Threeway hand shakes open connection	10/04/09
Lecture 34	session layer design issue, presentation layer issue	13/04/09
Lecture 35	Introduction to network management: Remote Monitoring Techniques	15/04/09
Lecture 36	security management, firewalls	17/04/09
Lecture 37	VLANs, proxy servers, introduction to network operating system: Client-Server infrastructure	18/04/09
Lecture 38	Windows NT/2000	20/04/09
Lecture 39	Presentation layer issues	22/04/09
Lecture 40	Application layer issues	24/04/09
Lecture 41	Revision	27/04/09
Lecture 42	Test of Unit 3 & 4	28/04/09
Lecture 43	Test of whole syllabus	29/04/09
Lecture 44	Test of whole syllabus	1/05/09