

**DIPLOMA COURSE IN ELECTRONICS AND COMMUNICATION
ENGINEERING
Fourth Semester**

Subject: EC406 PC Hardware And Networking lab

Contact Hrs/Week:6

Contact Hrs/Sem: 96

GRADED EXERCISES

01. List and Identify the various External and Internal components of a Personal Computer (PC)

02. Identify and studying the different parts of a mother board (List the various latest CPUs, MOTHERBOARDS, RAM, MONITOR, HARDDISK available in the present market)

03. Study of SMPS and measuring the various output voltages and identifying the cards/components/systems to which they are connected

04. Study of ROM BIOS, Hardware configuration, the CMOS set-up and the effect of various parameters on the working of the system

06. Exercise on disassembling and assembling of PC

07 Study of trouble shooting of following faults and remedy for them

- 1 short beep
- 2 short beeps
- Continuous beeps
- One long and short beep
- 3 long beeps
- No system beep.

08. Installation of WINDOWS XP operating system by partitioning the hard disk (at least two partition)

09. Installation of LINUX operating system executing Basic LINUX commands and Creating users / group users, Assigning permissions.

10 Installing and using of any application Software, Antivirus software & PC diagnostic - tools

11. Windows 2003 Server(standard edition) Installation as Domain controller and study of
User group management (* Note)
12. Exercise on crimping Network Cable & Testing using Cable Tester
13. Install a peer to peer network and test with Net meeting
14. Install a network between 3 or more computers using network switch and Test
for sharing of resources
15. Establish LAN between Linux & Windows Systems & Share Printer
16. Install a Wireless network using Access Point and Wireless Network card between 3 or
more computers and Test by Sharing a Printer
17. Setup Internet using modem, PSTN Line/WLL/Broad Band and Internet account
Share Internet through LAN
18. Establish Video conference between 3 users using web camera & headphones

SCHEME OF EVALUTION

Sl No	Division	Marks
01	Record	05
02	Identification of External and internal parts and assembly	20
03	Installation Operating System and other software	20
04	Assembling and disassembling of PC	20
05	Perform crimping and networking	20
06	Viva-Voce	20
	Total	100

* Note : Web support :

<http://www.windowsreference.com/windows-server-2003/step-by-step-windows-server-2003-installation-guide/>

**Department Of Technical Education
DIPLOMA COURSE IN ELECTRONICS AND
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Fourth Semester

Subject : PC HARDWARE AND NETWORKING LAB

LIST OF EQUIPMENTS/ ACCESSORIES REQUIRED FOR A BATCH OF 20 STUDENTS

SL NO	NAME OF THE EQUIPMENTS	SPECIFICATIONS	QUANTITY
01	COMPUTER SYSTEMS	Core2duo/Dual core,1GB RAM,150HDD	20 NOS
02	WINDOWS XP OPEARING SYSTEM(20 USER LICENECE),WINDOWS 2003 SERVER ,LINUX,MSOFFICE,ANTIVIRUS SOFTWARE		01 NO EACH
03	CRIMPING TOOL AND CABLE TESTER		10 NOS EACH
04	16 PORT SWITCH		02 NOS
05	WEB CAMERA		06 NOS
06	TOOL KIT		01 SET
07	DIGITAL MULTIMETERS		10 NOS

Subject: DIGITAL COMMUNICATIONS LAB

LIST OF EQUIPMENTS REQUIRED FOR A BATCH OF 20 STUDENTS.

SL NO	NAME OF THE EQUIPMENTS	SPECIFICATIONS	QUANTITY
01	Kit to demonstrate Sampling theorem and aliasing effect		10 NOS
02	Kit to demonstrate PCM.		10 NOS
03	Delta modulation and detection kit		10 NOS
04	Adaptive Delta modulation and detection kit		10 NOS
05	DPSK modulation and detection kit		10 NOS
06	Optical fiber communications trainer kit to cover all the experiments in part-B		05 NOS
07	Dual Channel CRO	25 MHZ	10 NOS
08	FUNCTION GENERATOR	0-1 MHZ	10 NOS
09	LINEAR IC TRAINER		10 NOS
10	POWER SUPPLY	+/-5V	05 NOS