Govt. of Karnataka, Department of Technical Education

Diploma in Computer Science & Engineering

Third Semester

Subject : PC Hardware and Networking Lab

Contact Hrs / week: 6 **Total hrs: 96**

List of Experiments

SN	PART A	Hrs
1	Understand the importance of earthing. Measure the voltages of single phase 3 pin socket between the points: Phase - Neutral, Neutral – Earth and Phase-Earth. (Have guest lectures about method and type of earthing).	3
2	Study and measure voltages of SMPS	3
3	Drawing the motherboard layout (any latest processor) and studying the chipset through data books or Internet	3
4	CMOS setup of any latest PC	6
5	Learn parallel port, serial port and USB port testing and Installation of Scanner, Printers and ADSL/DSL Modems.	6
6	Study of Diagnostic Software. (Any one)	3
7	Fault findings: (a) Problems related to CPU. (b) Problems related to RAM	6
8	Disassembly and Assembling of PC and Installation of Operating System a) Windows Vista or higher b) Linux	6
	PART B	
9	a) Crimping of RJ45: Straight and Cross. b) Punching Cat 6 cable to I/O Box. Use punching tool. Check connectivity using LAN tester.	6
10	Install NIC (both RJ45 and Wireless), Switch and Wireless router	6
11	Study different IP class (A, B, C) addressing. (Manual & Dynamic)	6
12	Windows Server 2008 or higher version & also install the following services	6

a) Active directory b) DNS c) DHCP d) Print server

Create and manage users. Set policies using GPO.

13 Connect Windows Vista / Windows 7 users (minimum 3) to Windows domain and share any two devices (HDD, DVD, Printer, Scanner). Client connectivity media wired and wireless. 6

14 Create users on Linux and specify permissions. 6

15 Install internet connection (Minimum ADSL or Wireless Broad Brand) and share on clients. (Not for exam) 6

16 Visit any industry / institutes (Engineering colleges, university campus etc) and study the following 12

1. Type and Configuration of client PC's and OS (Eg: Linux, Windows, MAC etc.)
2. Type and Configuration of Servers and Domains used
3. Type of networking (Topology and media used)
4. Different network devices used (switch, routers, access points etc)
5. Different types of peripheral devices used (Eg: printers, scanner, web cam etc.)
6. Applications used by the users.

Prepare a report of about 3 to 4 (A4 size) pages and include in the lab record.

Tests 6

Total **96**

Note: *Two* theory hours and *Four* practical hours to be handled per week

Scheme of Examination

1	Record+Report(Q 16)	05+05=10
2	Writing Procedure for two experiments (One each from Part A & Part B)	15+15=30
3	Conduction	10+10=20
4	Fault diagnosis	20
5	Viva-Voce	20
	Total	100

References:

www.pcguide.com
www.karbosguide.com
www.windowsnetworking.com
www.linuxtopia.org
www.networktutorials.info
www.academicearth.org