KENYA METHODIST UNIVERSITY
END OF TRI-MESTER EXAM, APRIL 2007

FACULTY   :   SCIENCES
DEPARTMENT   :   MATHEMATICS AND COMPUTER SCIENCE
COURSE CODE   :   CISY 453
COURSE TITLE   :   NETWORK ADMINISTRATION II
TIME   :   3 HOURS

Instructions: Answer **ALL** questions in **SECTION A** and only **TWO** questions in **SECTION B**.

Section A.   Answer all questions (20 marks total)

1   What is the typical minimum RAM requirement for a standard server installation of the most Ubuntu revisions beyond 5.0? (2 marks)

2   What is the name of the standard desktop environment included with Ubuntu by default? (2 marks)

3   What program converts between rpm, dpkg, slp, and other file formats? (2 marks)

4   What are tar and gz file types? (4 marks)

5   What is the name of the most common proxy application used in the Ubuntu/Linux environment? (2 marks)

6   You suspect connectivity problems and want to access ping, netstat, lookup, and other common network troubleshooting tools. What is the path to where these tools can be found? (3 marks)

7   What key combination can be used to restart GNOME without rebooting the computer? (2 marks)

8   What is a deb file and how would you expect to use one? (2 marks)

9   After testing, you find that you need to uninstall a .deb file named friday. What utility and command should be used for this operation? (2 marks)

10 What tool is used to set up standard internet network access as a normal client? (2 marks)

Section B Answer any 2 questions (11-15) and specifically identify which are to be graded (20 Total Marks)

11 A system administrator has set up a small network for a children's school. The teacher's want the students to use the internet but disallow access to certain types of websites defined by school policy. Answer the following, assuming the network is operated with a Ubuntu/Linux system.

   a   What application(s)/program(s)/feature(s) in the Ubuntu/Linux system support this kind of control? (2 marks)
   b   Outline your approach to blocking such access. (4 marks)

c   How would you allow teachers to have a broader range of access for research purposes? (4 marks)

12 Explain the use of the following Ubuntu applications (2 marks each)
    a   GRUB
    b   LILO
    c   gparted
    d   sudo
    e   GDM

13 A new device is being added to a Ubuntu/Linux system. The device descriptors in XORG.CONF are not correct. Assuming you have a standard Graphical User Interface (GUI) desktop and are the system administrator, how would you do the following? (2 marks each)
    a   Gain access to the root?
    b   Find the location of XORG.CONF?
    c   Make your changes?
    d   Test your changes?
    e   Describe a non-GUI method of making the changes.

14 Describe the concept of superuser, what utility provides control, and how and when to use it. Give an example of its use and how to invoke it assuming you are in a GUI general use mode. Include brief comments on Ubuntu convention for password protection of the superuser mode. (10 marks)

15 Describe the process of setting up Ubuntu as a proxy server. (10 points)