



# KENYA METHODIST UNIVERSITY

## END OF 1<sup>ST</sup> TRIMESTER 2010 EXAMINATIONS

**FACULTY** : **COMPUTING AND INFORMATICS**  
**DEPARTMENT** : **COMPUTER INFORMATION SYSTEMS**  
**UNIT CODE** : **CISY 202**  
**UNIT TITLE** : **OPERATING SYSTEM LAB**  
**TIME** : **2 HOURS**

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### Instructions:

- Answer question 1 and any other 2 questions.

### Question 1 (30 marks)

- a) Briefly discuss the following interfaces. (6 mks)
- i) eth0, eth1, .....
  - ii) tro, tr1, .....
  - iii) SL0, SL1, .....
  - iv) PPP0, PPP1, .....
  - v) PUP0, PUP1, .....
  - vi) ax0, ax1, .....
- b) State and explain the components of a Linux Operating System. (8 mks)
- c) Describe the Unix directory structure using a diagram. (5 mks)
- d) State and explain at least 6 directories typical contents. (3 mks)
- e) With the aid of an example, illustrate the use of the following commands;
- i) \$ cat (2 mks)
  - ii) \$ od options filename (2 mks)
  - iii) \$ Useradd. (2 mks)
- f) Define the term shell variable give an example. (2 mks)

### Question 2 (15 marks)

- a) Discuss two considerations to factor, when performing red-hat linux installation for dual booting. (4 mks)
- b) Outline two Linux utilities that can be used to compress a file. (2 mks)
- c) Explain the term output redirection. (3 mks)
- d) Describe two differences between logging in as root and assuming the root using the SU command. (4 mks)
- e) State the difference between a hard link and a symbolic link. (2 mks)

**Question 3 (15 marks)**

- a) One of the most useful files in Linux is `etc/inittab`. Briefly explain what it contains.  
(3 mks)
- b) You have downloaded some zipped file from an online site. How do you install such an application? (4 mks)
- c) Explain the results below, after executing the non-level command  
`$ runlevel`  
N3 (2 mks)
- d) Name three partitions that have to be created during a Linux installation. (3 mks)
- e) What does the following command due to the data file.  
`$ grep "code [0-9]" data file` (3 mks)

**Question 4 (15 marks)**

- a) Explain the following command  
`$ Useradd james_doe -g kitchen_staff -s/bin /tcsh -c "James doe" James Joe`  
(6mks)
- b) If you want to be able to temporality assume the root privileges, how do I do it if am currently logged as Dave? (3 mks)
- c) To perform disk partition state three utilities that you can use. (3 mks)
- d) In Linux OS what is the disk space requirement when installing GNOME and KDE desktop environments? And what will be the size of swap partition if the system has 512 MB of RAM? (3 mks)