



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF INFORMATICS AND INNOVATIVE SYSTEMS

UNIVERSITY EXAMINATION FOR THE DIPLOMA IN LINUX ENGINEERING

1st YEAR 1st SEMESTER 2018/2019 ACADEMIC YEAR

KISUMU CAMPUS

COURSE CODE: ICT 2112

COURSE TITLE: LINUX/UNIX SYSTEMS ADMINISTRATION

EXAM VENUE:

STREAM:

DATE:

EXAM SESSION:

TIME: 2.00 HOURS

INSTRUCTIONS:

- 1. Answer Question 1 (Compulsory) and ANY other two questions**
- 2. Candidates are advised not to write on the question paper**

QUESTION ONE [30MARKS]

- a) Distinguish between warm boot and cold boot (2marks)
- b) What does the # and \$ command line prompts mean (2marks)
- c) Two different types of programs are executed on a computer state and explain (4marks)
- d) State the four Categories of Operating Systems (4marks)
- e) Linux Operating system is considered a Multiuser and multitasking OS explain what you understand by this statement. (2marks)
- f) What is a Linux kernel? (2marks)
- g) What do you understand by the term Open Source Software (OSS)? (2marks)
- h) There are two competing GUI environments in Linux, state them (2marks)
- i) Distinguish the following Types of Open Source Licenses (2marks)
- j) State the functions of the following basic shell commands (2marks)
 - i. clear
 - ii. reset
 - iii. finger
 - iv. whoami
- k) State what you understand by the following terms in Linux (2marks)
- l) Linux May be customized to provide services for a variety of companies in a variety of situations which include Workstation services and Server services. State four of the Internet Servers services that can be provided by Linux. (2marks)
- m) State what you understand by terminal and shell in Linux (2marks)

QUESTION TWO [20 MARKS]

- A) An operating system (OS) is a set of programs containing instructions that work together to coordinate all the activities among computer hardware resources state at least ten functions performed by an operating system. (10marks)
- B) Explain what you understand by the following operating systems components (4marks)
 - 1. Device Driver
 - 2. User Interface
 - 3. Graphical user interface (GUI)
 - 4. System services Gaining network access
- C) Distinguish between developmental kernel and production kernel (2marks)
- D) What do you understand by the term Linux distribution, state at least four Linux distribution? (2marks)

E) State two good practices when preparing for Installation of Linux operating System? **(2marks)**

QUESTION THREE [20 MARKS]

A) Explain what you understand by the following Operating systems functions **(8marks)**

- i. Job Management.
- ii. Task Management.
- iii. Memory Management.
- iv. File Management.

B) State and explain the two fundamental components that form a computer **(4marks)**

- a. Applications.
- b. Operating system (OS) software.

C) Briefly explain at least four implications of Open Source Software (OSS). **(8marks)**

QUESTION FOUR [20 MARKS]

A) Describe the following directories in linux **(8marks)**

- i. /
- ii. /boot
- iii. /home
- iv. /usr
- v. /usr/local
- vi. /opt
- vii. /var
- viii. /temp

B) Describe how a computer boots up **(7marks)**

C) What do you understand by the term swap memory? **(1mark)**

D) Explain what you understand by the following Common Linux file management commands **(4marks)**

- i. mkdir
- ii. rmdir
- iii. mv
- iv. cp

QUESTION FIVE [20 MARKS]

A. Distinguish between open source and closed source, freeware and shareware **(4marks)**

B. Explain at least seven advantages associated with Linux as an operating system. **(14marks)**

C. Linux system must have at least a minimum of two partitions what function do they serve **(2marks)**