KISII UNIVERSITY

UNIVERSITY EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE AWARD OF THE DEGREE OF BACHELOR OF SCIENCE IN MATHEMATICS AND COMPUTER SCIENCE/BIOMETRY AND INFORMATICS
SECOND SEMESTER 2022/2023
[JANUARY-APRIL, 2023]

COMP 203: UNIX OPERATING SYSTEM

STREAM: Y2S2   **TIME: 2 HOURS**

DAY: THURSDAY, 3:00 – 5:00 PM   **DATE: 20/04/2023**

INSTRUCTIONS

1. **Do not write anything on this question paper.**
2. *Answer question ONE and any other TWO questions.*

QUESTION ONE

a) Differentiate the following terminologies
   i.   Batch processing system and Real Time Processing System
                                                            [2 Marks]
   ii. Real Time System and Timesharing System   [2 Marks]
b) What are the primary differences between Network Operating System and Distributed Operating System
                                                            [4 Marks]
c) Outline the process of displaying the contents of a file in Unix
                                                            [6 Marks]
d) List and explain the most consistent ways to shut down a Unix system from the command line   [6 Marks]
e) With clear illustrations, Discuss the Unix operating systems structure
                                                            [10 Marks]

QUESTION TWO

a) List and explain the hidden files in Unix and the procedure for displaying these files   [5 Marks]
b) Clearly explain any five functions of an operating system
                                                            [5 Marks]

c) Describe the application of the chmod command as applied in Unix. Differentiate between symbolic and absolute use of chmod

[10 Marks]

QUESTION THREE

a) With the aid of a well labeled diagram, illustrate and briefly explain the five states of a process as used in operating systems

[5 Marks]

b) Outline the process of copying files in Unix

[5 Marks]

c) Discuss the standard Unix streams   [10 Marks]

QUESTION FOUR

a) Explain the following environment variables   [4 Marks]
   iii.   SHLVL
   iv.   UID
    v.   TZ
   vi.   TERM

b) With clear illustrations, discuss the application of the lp and lpr commands   [6Marks]

c) Discuss the grep command and various options which can be used along with the grep command   [10 Marks]

QUESTION FIVE

a) Differentiate the following commands   [4 Marks]
   vii.   Vi filename and vi –R filename
   viii.   mput file list and mget file list

b) Explain the features of unix in detail   [6 Marks]

c) Give comparision between Unix and Windows Operating systems

[10 Marks]