

## Systems Administration BIT Weekend

System Administration (Ghana Communication Technology University)



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#### GHANA COMMUNICATION TECHNOLOGY UNIVERSITY



#### FACULTY OF COMPUTING AND INFORMATION SYSTEMS

### **BSc INFORMATION TECHNOLOGY (LEVEL 400)**

# END OF SECOND SEMESTER EXAMINATIONS, AUGUST 2024 WEEKEND STREAM

**Course Code: IT412** 

**COURSE TITLE: Systems Administration** 

**Duration: 2 Hours 30 Mins** 

Answer any 4 Questions from the following. Each question carries 15 marks.

#### 1. QUESTION 1

a. Describe any 5 duties that are solely conducted by system administrators.

[5 marks]

- b. As a System Administrator, explain any 5 good work practices expected from you
  - [5 marks]

c. Explain any 5 common system administrator traits.

[5 marks]

#### 2. QUESTION 2

Using your understanding of open source commands (Linux), answer the following:

**a.** Write a Linux command to create a directory "TryOne" in your home directory.

[2 marks]

b. Write a Linux command to create in the directories ~*Com1/Dir4/Com3/Dir2* (Dir2 is a subdirectory from Com3, and Com3 is a subdirectory from Dir4, etc).

[2 marks]

- c. Write a Linux command to create a directory ~/Fearful and make it current working directory.
   [2 marks]
- d. Write a Linux command to create the files fantas.text and camp.text

[2 marks]

- e. Write a Linux command to create a directory called ~/backup and copy all files from ~/Fearful into it. [3 marks]
- f. Write a Linux command to Rename *camp.text* to Fireworks [2 marks]
- g. Write a Linux command to remove the directory ~/backup and all files in it.

[2 marks]

#### 3. **QUESTION 3**

a. How can one display the last 4 or first 3 lines of a file in Linux?

[2 marks]

b. Explain the following lines of commands

```
paul@debian8:~$ echo three >part2
paul@debian8:~$ echo two >part1
paul@debian8:~$ echo one >part3
paul@debian8:~$ cat part1
two
paul@debian8:~$ cat part2
three
paul@debian8:~$ cat part3
one
paul@debian8:~$ cat part1 part2 part3
two
three
one
paul@debian8:~$ cat part1 part2 part3 >all
paul@debian8:~$ cat all
two
three
one
```

[4 marks]

c. With the aid of a diagram, explain Evard's 5 states of a machine and describe how movements between states happen. [9 marks]

#### 4. **QUESTION 4**

a. List any 5 features of Windows Server 2008 [5 marks] **b.** Explain the uses of the following control operators in Linux: I. Double ampersand (&&) [2 marks] II. Semicolon (;) [2 marks] III. Dollar Question Mark (\$?) [2 marks] IV. Double vertical bar (||) [2 marks] V. Pound Sign (#) [2 marks]

#### 5. QUESTION 5

Using your understanding of Shell Variables, answer the following with Linux commands:

**a.** Use echo to display **Contention** followed by your username. [2 marks] **b.** Create a variable **Decide** with a value of **100**. [2 marks] c. Destroy your **Decide** variable. [2 marks] **d.** Write a Linux command to display the last 5 commands typed [2 marks] e. Write a single line command to list (with ls) all files starting with File and ending in a number. [3 marks] **f.** What command character can be used to get regular expressions in Linux that matches the start of a string? [2 marks] **g.** Copy the value of \$SCIENCE to \$DeSCIENCE. [2 marks]