

UGANDA MARTYRS UNIVERSITY

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION SYSTEMS

END OF SEMESTER FINAL ASSESSMENT

SEMESTER I, 2021/22

THIRD YEAR EXAMINATION FOR BACHELOR OF SCIENCE IN
INFORMATION TECHNOLOGY

(Rubaga, Nkozi & Msk)

System Administration and computer Maintenance

CSC 3103

DATE: Wed, 19th JAN 2022

TIME: 9:30am – 12:30pm

DURATION: 3HRS

Instructions:

1. Carefully read through ALL the questions before attempting
2. Attempt **ANY FOUR** questions
3. No names should be written anywhere on the examination book.
4. Ensure that your Reg number is indicated on all pages of the examination answer booklet.
5. Ensure your work is clear and readable. Untidy work shall be penalized
6. Any type of examination Malpractice will lead to automatic disqualification
7. Do not write anything on the questions paper.

QUESTION ONE

- a) Define the term computer maintenance. 2marks
- b) As a systems administrator of ABC bank Ltd, describe any two main types of computer maintenance that you can carry out on the computers. 4marks
- c) Receptionist 1 reports that her computer is faulty, as a trained and qualified systems administrator, describe the six major steps you would go through to have the problem solved. 12marks
- d)i) Write POST in full. 1mark
- ii) POST typically provides 3 types of output messages. Name them. 3marks
- iii) As an expert systems administrator, explain the purpose of data protection. 3marks

QUESTION TWO

- a)i) Define the term access control 2marks
- ii) Name any three examples of access control. 3marks
- iii) Explain any two challenges of password authentication. 2marks
- b)i) Differentiate between Mandatory and discretionary access control. 5marks
- ii) Explain how the Discretionary access control model works in enforcing access control. 9marks
- iii) Explain any two ways a system administrator can improve on password security. 4marks

QUESTION THREE

Account for the following abnormal behaviors in a computer

- a) Computer fails to display 5marks
- b) When the computer is switched on, no display, you hear continuous short beeps and led lights are on. 5marks
- c) When the computer is switched on, the whole machine is dead. No display, no beeps, no led lights. 5marks
- d) Computer turns off without warning 5marks
- e) Computer hangs up frequently 5marks

QUESTION FOUR

- a) i) Define the term network monitoring. 2marks
- ii) Give an example of a network monitoring tool including its definition. 2marks
- b) Give the meanings of the following commands.
- i) cdsemester_II
 - ii) mkdirmy_dir
 - iii) rmdiryour_dir
 - iv) cp file_1 file_2
 - v) mv file_1 file_2
 - vi) rm h*c
- 12marks
- c)
- i) The ownership of the file or directory can be changed using the..... command 3marks
 - ii) The group of the file or directory can be changed using thecommand 3marks
 - iii) The permissions of the file can be changed using the command 3marks

QUESTION FIVE

You are a systems administrator of block and bend enterprises ltd a new NGO in Uganda that needs to setup its network from scratch. As part of your job description, you are required to install and configure your windows server with windows server 2016 and windows 10 for the client.

Give step by step procedures attain the following on the server.

- a) Change the computer name to Server-2022 3marks
- b) Turn windows firewall on 2marks
- c) Enable remote desktop. 3marks
- d) Insert a static IP address of class c of your choice and set server-2022 as the server to CL-1(give ip address of both the server and clients plus their corresponding default gate ways). 8marks
- e) Promote your server to a domain controller (blockandbend.com) 5marks
- f) Create a group 'AD-2022' and add one user to it. 4marks

END