UGANDA MARTYRS UNIVERSITY

NKOZI

UNIVERSITY EXAMINATION

DECEMBER 2022

FACULTY OF SCIENCE

DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION

SYSTEMS

SECOND YEAR, END OF SEMESTER ONE FINAL ASESSMENT

FOR

DIPLOMA IN COMPUTER SCIENCE & INFORMATION TECHNOLOGY

IN

SYSTEMS ADMINISTRATION AND COMPUTER MAINTANANCE

Date: 2022   Time: 3 Hours

Instructions

EXAMINATION GUIDELINES

All questions in Section B carry equal Marks.
Attempt all questions in section A

Section A (Compulsory)

1. List down four items a computer specialist should include in his/her basic cleaning kit. (2 Marks)
2. Differentiate between Cold boot and warm boot (2 Marks)
3. Briefly describe the booting process of a computer. (4 Marks)
4. With examples, define access control. (2 Marks)

Section B (Choose only 3 Numbers)

Question 1

a) With examples, define the following terminologies; (10 Marks)
i) Troubleshooting.
ii) Cyber security
iii) A systems administrator.
iv) A digital multimeter.
v) CPU and RAM
b) Give 5 roles of a systems administrator. (10 Marks)
c) Compare and contrast the following; (2 Marks each)
   i) Hard disc and SSD
   ii) SATA and IDE
   iii) LED and CRT
   iv) USB and HDMI
   v) Ethernet and Internet

Question 2

a) With clear latest examples, explain four (4) categories of computer hardware. (16 Marks)
b) With examples, differentiate between Field technician and Remote technician. (4 Marks)
c) Give 5 skills of a professional computer technician (5 marks)
d) Using the knowledge of professional systems administrator, use not more than 5 lines to explain what you understand by a power supply. Differentiate between AC and DC. (5 Marks)

Question 3

a) Describe the troubleshooting process. (10 Marks)
b) With examples, elaborate the difference between an update and an upgrade as used in the field of hardware and software? (6 Marks)
c) Give 4 tips that any professional systems administrator should follow in the process of repairing and maintaining computers. (8 Marks)
d) With simple clear examples, elaborate how access control can be implemented or achieved in the following; (6 Marks)
   i.   Web Browser
   ii.   Social network
   iii.   Operating system.

Question 4

a) How do you define the term computer maintenance? (2 Marks)
b) With examples, explain two types of computer maintenance and give the procedure of achieving both. (10 Marks)
c) Give 5 ways how can computer users protect their information from dangers, attacks and damage of any nature. (10 Marks)
d) A client calls and complains that his computer is hanging. As a computer technician what do you think are the possible causes to this problem (give 4) and what would be the possible solutions for each problem. (8 Marks)

END