

# UGANDA MARTYRS UNIVERSITY NKOZI

## UNIVERSITY EXAMINATIONS SUPPLEMENTARY/SPECIAL EXAMINATIONS

### FACULTY OF SCIENCE

## DEPARTMENT OF COMPUTER SCIENCE & INFORMATION SYSTEMS

### COMPUTER MAINTENANCE AND TROUBLESHOOTING

DATE: MONDAY AUG 10<sup>th</sup>, 2015

TIME: 10:00 AM – 12:00 PM

DURATION: 2 HOURS

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**Instructions:**

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1. Carefully read through ALL the questions before attempting
  2. **ANSWER TWO (2) Questions ONLY.** (Each question carries equal marks)
  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.
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**QUESTION 1**

- a) What is your understanding of the phrase “troubleshooting a computer system?” [4 Marks]
- b) Explain the “bootstrap” approach to troubleshooting a computer system [6 Marks]
- c) Outline the skills set you think are vital to be able to troubleshoot computers [4 Marks]
- d) Identify and explain different types of computer maintenance procedures [6 Marks]
- e) Complete the table below by providing the information relating to likely causes and possible resolution based on the symptoms described [5 Marks]

Observed symptom	Likely cause(s)	Possible solution(s)
Nothing is displayed on the monitor when the computer is powered on		
The computer is unable to connect to the Internet even though there is Internet connectivity		
No sound is produced by the computer system even though the speaker is not muted		
The message “no boot device found” is displayed on the monitor when the computer is powered on		

Programs frequently become unresponsive i.e., the computer “freezes” especially when many programs are opened at once		
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## QUESTION 2

a) Write brief explanatory notes on the following computer components

**[25 MARKS]**

- i. Power supply unit
- ii. Video card
- iii. Central processing unit (CPU)
- iv. Sound card
- v. Motherboard
- vi. Case/chassis
- vii. CMOS (complementary metal oxide semi-conductor)
- viii. Accelerated graphics port (AGP)
- ix. Peripheral component interconnect (PCI) slots
- x. Front side bus (FSB)

## QUESTION 3

- a) Identify and explain the different types of file access methods
- b) Identify and explain the different kinds of file access permissions
- c) Outline tasks involved in managing a hard disk drive
- d) Differentiate between hard disk partitioning and hard formatting
- e) Identify and explain the different types of hard disk partitions
- f) Give two reasons for partitioning a hard disk

**[6 Marks]**

**[6 Marks]**

**[3 Marks]**

**[2 Marks]**

**[4 Marks]**

**[4**

**Marks]**

## QUESTION 4

a) Briefly explain the following:

- i. Dual inline memory module (DIMM), Single inline memory module (SIMM), and Single outline memory module (SO-DIMM)

**[6**

**Marks]**

- ii. Static RAM and dynamic RAM

**[4 Marks]**

- iii. Read-only memory (ROM), Random access memory (RAM), Cache memory

**[6 Marks]**

b) Identify and explain factors related to RAM that affect a computer's performance **[4 Marks]**

c) Joel wants to expand the memory of her computer by adding new chips to the existing one's.

Advice Joel on the type and speed of new chips to acquire

**[5 Marks]**

**END**