



OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, STUDENT AFFAIRS AND RESEARCH

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# UNIVERSITY EXAMINATIONS

## 2019/2020 ACADEMIC YEAR

### FIRST YEAR SECOND SEMESTER EXAMINATION

### MAIN EXAMINATION

## FOR THE DEGREE OF BACHELOR OF COMPUTER SCIENCE

**COURSE CODE: COM 120**

**COURSE TITLE: SYSTEM HARDWARE**

**DATE: 13<sup>TH</sup> OCTOBER, 2020      TIME: 9.00 AM – 12.00 NOON**

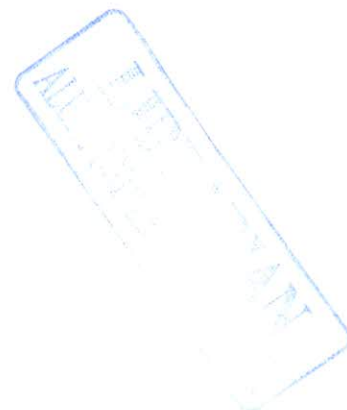
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### INSTRUCTION TO CANDIDATES

- SEE INSIDE

THIS PAPER CONSISTS OF PRINTED PAGES

PLEASE TURN OVER



COM 120: SYSTEM SOFTWARE

STREAM: BSc (Computer Science)

DURATION: 3 Hours

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**INSTRUCTIONS TO CANDIDATES**

- i. Answer **ALL** questions from section A and any **THREE** from section B.
- ii. Maps and diagrams should be used whenever they serve to illustrate the answer.
- iii. Do not write on the question paper.

**SECTION A (24 MARKS) COMPULSORY**

**QUESTION ONE [12 MARKS]**

- a. Describe the following terms as used in system hardware
- i. Instruction set
  - ii. Motherboard [4 marks]
- b. Differentiate between the following computer ports
- i. Serial port
  - ii. Parallel port
  - iii. PS/2
  - iv. USB [4 marks]
- c. List hence describe two output devices. [4 marks]

**QUESTION TWO [12 MARKS]**

- a. Describe three major components which form the Central Processing Unit. [6 marks]
- b. Differentiate between ROM and RAM with respect to their functionalities. [2 marks]
- c. Explain the difference between an interrupt I/O and programmed I/O. [4 marks]

**SECTION B [36 MARKS]**

**QUESTION THREE [12 MARKS]**

- a. Describe the term network with respect to computing hence state an example. [3 marks]
- b. State three types of cables that can be used to connect computers to a network. [3 marks]
- c. Contrast between Hardware, Firmware and Software as terminologies used in computing. [6 marks]

**QUESTION FOUR [12 MARKS]**

- a. Explain the meaning of memory latency and its effect on RAM. [4 marks]
- b. Differentiate between Male and Female computer ports. [4 marks]
- c. Describe the physical characteristics of **D-Shell** connector and **DIN** connector. [4 marks]

**QUESTION FIVE [12 MARKS]**

- a. Describe the term utility software hence explain why it is critical to the computer system. [3 marks]
- b. State any three types of utility software hence explain their function. [6 marks]
- c. Explain the function of device drivers. [3 marks]

**QUESTION SIX [12 MARKS]**

- a. Computers store large volumes of data. Identify and explain any four computer storage media. [8 marks]
- b. Differentiate between the following:
  - i. SRAM and DRAM
  - ii. PROM and EEPROM [4 Marks]

**QUESTION SEVEN [12 MARKS]**

- a. Describe the following types of memory:
  - i. Registers
  - ii. Cache memory [4 marks]
- b. Explain the term BIOS as used in computing [2 marks]
- c. List three configurations that can be made in BIOS. [3 marks]
- d. Describe what CMOS is in a computer system [3 marks]

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