



ELIZADE UNIVERSITY ILARA-MOKIN

FACULTY: BASIC AND APPLIED SCIENCES DEPARTMENT: MATHEMATICS AND COMPUTER SCIENCE 1ST SEMESTER EXAMINATION 2020 / 2021 ACADEMIC SESSION

COURSE CODE: CSC 209

COURSE TITLE: Computer Hardware

COURSE LEADER: Mr. O. Babalola

DURATION: 2 Hours

HOD's SIGNATURE

INSTRUCTION:

Students are warned that possession of any unauthorized materials in an examination is a serious assessment offence.

Candidates should answer any **FOUR** Questions. Question is compulsory.

Use examples as necessary; this will show your understanding of the underlying concepts. You must also understand that marks will be awarded for coverage therefore write all the key points as necessary.

1. Technical work

- a. ABC had his internship at ... They deal with CCTVs. What do you think is a major challenge CCTV and systems such as automatic access gates face in Nigeria.
- b. What are the traits people are looking for in technical personnel beyond technical skills?
- c. You are on SIWES, you've been asked to go to the University VC's house to solve some hardware problems. Write how you will approach the task. (Note: the examiner expects technical and non-technical submission in answering this question).
- d. You find out that the VC wants to run some analysis in a cutting-edge experiment and can only use Ubuntu 20. Explain what you will do and how you will go about doing it from start to finish. Details are expected.
- e. List 5 tools and 5 equipment you will find in a hardware lab.

2. LMC

- a. What is, and why the LMC? Write on the following, its:
 - b. History
 - c. Features
 - d. Programming
- e. LMC and how modern computers work

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3. 'Philosophy'
 - a. Explain the 8 great ideas in computer hardware as taught in CSC208.
 - b. A CSC209 student just said she programs the registers on her computers and the statement triggers an argument in the hostel common room. You join the argument; what will be your submission on the matter?
 - c. Describe 5 registers found in computers.

4. Presentation
 - a. What was your CSC209 presentation topic?
 - b. Write a 350 words summary on the topic, this will be scored on good writing, grammar and organisation (30%), coverage (45%), technicality (25%).
 - c. The CSC209 course involves submitting magazine / industry publication assignments. You want to showcase your knowledge acquired through that task to your family.
 - i. What articles did you submit?
 - ii. List the magazines you read (at least 10)
 - iii. List the unique things reported in the write-ups
 - iv. List 20 industry companies and what they do/offer

5. Tech
 - a. What is Atari? Mention one of such.
 - b. How was it programmed?
 - c. Explain bit, bit operations.
 - d. What is x86? X64?
 - e. What is Von Neumann Machine? and Von Neumann?
 - f. There's a memory hierarchy design in computers. Describe the concept.
 - g. What is a semiconductor? Give examples. What are transistors? Give examples.

6. Building a computer
 - a. Form factor with examples
 - b. Motherboards with example
 - c. Sockets with examples
 - d. Memory with examples etc
 - e. Cooling with exampleExplain:
 - f. Buses:
 - g. Cores:
 - h. ALU:
 - i. Memory Controller:And
 - j. List 20 acronyms related to computer hardware and the full description of each.
 - k. What do you know about 120V, 240V and 120V/240V?

Lifeline:

If you know you have been lazy and you are now in panic mode, here is a question to bail you out.

Summarize the computer and non-computer knowledge and lessons you learnt by taking CSC209 over the space of 20 classes and 80 hours.

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