**DAR ES SALAAM INSTITUTE OF TECHNOLOGY**
**MICROPROCESSOR TECHNOLOGY**
**COT 05214**
**ASSIGNMENT ONE**

## INSTRUCTIONS:

1. Group should consist of at most 5 members only.
2. All group members should sign on the cover page.
3. Group work and presentation carries 5 marks.
4. Should be submitted and presented on the first session of the next week.

## QUESTIONS

1. Define the following terms as used in Microprocessor technologies

- Clock Cycle
- Instruction Set
- Clock Speed
- Cache Memory
- Registers
- Microprocessor
- ALU (Arithmetic Logic Unit)
- Control Unit
- Pipeline
- Instruction Pipelining
- Superscalar Architecture
- Instruction Set Architecture (ISA)
- RISC (Reduced Instruction Set Computer)
- CISC (Complex Instruction Set Computer)
- Parallel Processing
- Vector Processing
- Multicore Processor
- Hyper-Threading

2. Differentiate the following
   i. CPU
   ii. MPU
   iii. MCU
   iv. SOC
   v. MCM
   vi. PLC

3. Advantages of a Microprocessor over a Microcontroller

4. Which microprocessors are currently available in Tanzania, and where can they be purchased? Additionally, what are their respective prices?

5. Classify / Categories microprocessors based on the following
   i. Architecture
   ii. Instruction set
   iii. Performance
   iv. Application