
BITCA3111

COMPUTER ARCHITECTURE

MODULE DETAILS

Course Location : Swaziland
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Commence Date : Week 2
Submission Date : No submission required

1. Define ROM
2. Explain the following
 - a. EPROM
 - b. EEPROM
 - c. Flash Memory
3. Answer the following questions:
 - a. Explain why instructions loaded in cache memory are processed faster by the CPU than instructions stored in main memory (RAM)
 - b. State two major differences between ROM and RAM
 - c. Explain the purpose of ROM
 - d. What are the major differences between SRAM and DRAM?
 - e. What are the characteristics of EPROM (Erasable Programmable Read Only Memory)
4. Briefly describe the magnetic disk and its read and write mechanism?
5. Define the principle of locality of reference and relate this concept to the memory hierarchy within computer systems.
6. With the aid of well-labelled diagrams, explain the Memory Hierarchy Principles
7. State any three (3) physical characteristics of magnetic disks
8. List and explain three replacement algorithms in cache design
9. Construct the Hamming code for the following memory word 1101000010101110 and illustrate how this code can correct 2 single bit errors.

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