

Important Problematic Questions for University Exam



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MODULE 1

Q1:

A benchmark program is run on a 40 MHz processor. The executed program consists of 100,000 instruction executions, with the following instruction mix and clock cycle count:

| Instruction Type | Instruction Count | Cycles per Instruction |
|--------------------|-------------------|------------------------|
| Integer arithmetic | 45.000 | 1 |
| Data transfer | 32.000 | 2 |
| Floating point | 15.000 | 2 |
| Control transfer | 8000 | 2 |

Determine the effective CPI, MIPS rate, and execution time for this program.

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EDULINE

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