

Computer Architecture

Assignment 6

Due: Next section.

Notes: This assignment is individual assignment, every student should complete by himself.

1. (2.5 Points) **Explain the instruction execution cycle process.**
2. (2.5 Points) **What is the difference between Single cycle ISA and Multi-cycle ISA?**
3. (2.5 Points) **What is the advantages/disadvantages of Single cycle ISA?**
4. (2.5 Points) **What is the advantages/disadvantages of Multi cycle ISA?**
5. (5 Points) **Consider the following program running on Multi-cycle machine where the value in each line represent the CPI for each instruction. Compute the execution time of this program given that the clock cycle time = 1000 (time unit).**

	Program	CPI
1	.data	
2	n byte 5	
3	.code	
4	main PROC	
5	mov eax, 1	3
6	movzx ecx, n	3
8	startLoop:	
9	mul ecx	5
10	loop startLoop	2
11	main ENDP	
12	END main	