

## ✓ Congratulations! You passed!

TO PASS 75% or higher

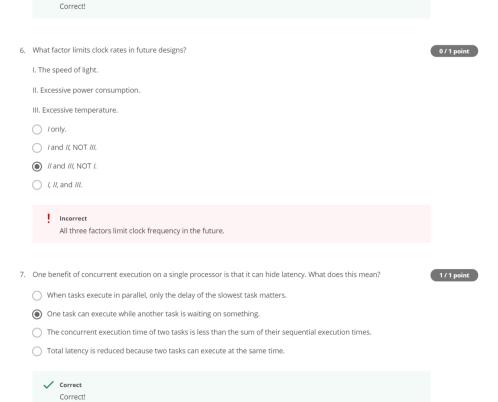
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grade 85.71%

## Module 1 Quiz

LATEST SUBMISSION GRADE
85.71%

1.	If two tasks are executing in parallel, which of the following statements is true?  They are using exactly the same hardware at the same time.  They are using different hardware, but running at the same time.  Their executions are alternating in time.  One task executes immediately after the other finishes.	1/1 point
	Correct!	
2.	What does the von Neumann bottleneck state about computer architectures?  Power consumption is a limiting factor for performance.  Temperature is a performance bottleneck.  Clock frequency cannot be improved without considering temperature.  Memory access time is a performance bottleneck.	1/1 point
	✓ Correct Correct!	
3.	What does Moore's law directly observe?  Power consumption doubles every 18 months.  Transistor density doubles every 2 years.  Processor power doubles every 2 years.  Transistor switching delay is cut in half every year.	1/1 point
	✓ Correct Correct!	
4.	How is dynamic power consumption related to voltage swing?  Dynamic power is proportional to the square of the voltage swing.  Dynamic power is proportional to the cube of the voltage swing.  Dynamic power is proportional to the square root of the voltage swing.  Dynamic power is proportional to the capacitance.	1/1 point
	✓ Correct Correct!	
5.	Why can't Dennard Scaling continue forever?  I. The speed of light limits the potential performance improvements.  II. Voltage must remain above threshold voltage.  III. Some noise margin must be maintained.  / only.  / and //, NOT III.	1/1 point
	<ul><li> // and ///, NOT /.</li><li> // // // // // // // // // // // // //</li></ul>	



✓ Correct