Summer 2017
Exam 2
07/06/2017

This exam contains 2 pages (including this cover page) and 5 questions.

Instructions

1. *Read every question very carefully.*
2. *You should be able to finish this exam in an hour.*
3. *For descriptive questions, please complete the answer in 5-10 sentences.*
4. *Please try to submit soft copies. If you are planning to submit scanned copies of hand-written answers, please make sure they are very clear.*
5. *Please join all the scanned copies or images to one PDF file and upload that final file to D2L.*
6. *Total points for the exam is 85.*
7. **Late submissions minus 10 points.**

Grade Table (for teacher use only)

Question	Points	Score
1	20	
2	20	
3	20	
4	20	
5	5	
Total:	85	

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1. (20 points) Explain the terms throughput and latency.
2. (20 points) Explain using Amdahl's Law how we can possibly improve the overall performance of a computer cheaper by buying better memory than buying better processor.
3. (20 points) Explain the step-by-step diagram of the following actions in a RAID Level 5 (assume there are only 3 discs).
   (a) (10 points) How data is added to the discs?
   (b) (10 points) How the data is recovered in case of a disc failure?
4. (20 points) Describe the six phases of a compiler in translating a computer language to a machine language.
5. (5 points) Draw example architecture diagrams for the following systems.
   (a) (5 points) SMP, Symmetric multiprocessors
   (b) (5 points) MPP, Massively parallel processors
   (c) (5 points) Hybrid of MPP and SMP
   (d) (5 points) Extended Flynn's taxonomy.