


Midterm 1 Overview

Basic Information

1

Midterm Information

- 75 minutes
- 150 points
- May contain multiple choice and short answer questions



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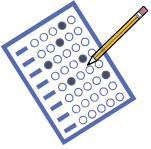
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2

What you need to bring

- Exam booklets will be provided for the exam
- So, you only need to bring a pen or pencil
- No** electronics allowed
- No** notes allowed



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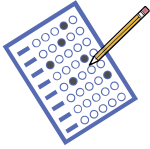
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3

3

What Will Be Covered

- Exam will cover Parts 1 to 5
- No question will be asked that is not in the lecture notes
- Download from:
athena.csus.edu/~cookd/28




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4

4




Sets

Part 1

5

Part 1 – Need to Understand

- Standard sets (\mathbb{Z} , \mathbb{Q} , etc...)
- Set Builder notation
- Venn diagrams
- Set operators
- Set algebra
- Tuples



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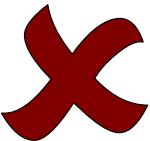
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Part 1 – Don't Worry About

- Example sets (Meeseeks)
- Duels (*we might go into detail later*)

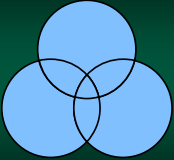


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7

7




Sets
Attributes

Part 2

8

Part 2 – Need to Understand

- Fundamental Products
- Cardinality
- Inclusion-Exclusion
- Power Series
- Partitions



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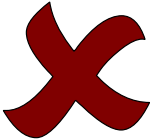
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9

9

Part 2 – Don't Worry About

- *Sorry, know it all*




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10

10




Sets in
Computer
Science

Part 3

11

Part 3 – Need to Understand

- Binary numbers
- Bit vectors



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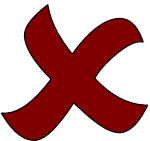
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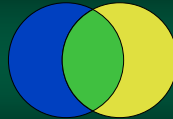
Part 3 – Don't Worry About

- Encoding IEEE floating point numbers (still need to know the concept, though)



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13




Relations

Part 4

14

Part 4 – Need to Understand

- Cross products
- Binary relations
- Types of relations
- Manipulating Relations
- Closures
- Functions
- Composition

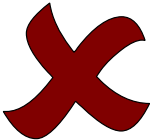


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15


Part 4 – Don't Worry About

- *Sorry, know it all*



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16




Relations in Computer Science

Part 5

17

Part 5 – Need to Understand

- Abstract Data Types
- Database terminology
- Functions in programming languages are function signatures

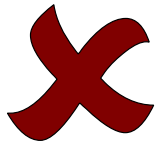


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18

Part 5 – Don't Worry About

- SQL
- Different programming language notations



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19