MIDTERM I will include True/False, Multiple Choice, and some Homework style Questions, drawing from ALL of the Material Covered in Lectures through Lecture 11. *You will be allowed to bring in one (1) 8.5" by 11" sheet of notes into the exam with you.*

Topics	Lecture
AI History and Overview	1,2
Views of AI (GOFAI vs. Behavior-based)	
Important People and Eras of AI (Approaches and What was investigated)	
Ideal Rational Agents	2
Components of Agents (PAGE)	
Taxonomy of Environments	
Simple Agents	3
Behavior Based AI Architectures	
Teleo-Reactive (Feature Vectors, Production System, Goals)	
Subsumption Architecture (Horizontal Architecture)	
Goal Based Agents	4
Problem/Goal Definition	
State-Space (8-Puzzle Toy Problem)	
Uniformed Search	4
State-Space Conversion to Search Tree	
Breadth-First Search	
Depth-First Search	
Performance Measures for Search	
Improvements to Uninformed Search	5
Depth-limited Search (Chronological Backtracking)	
Iterative-Deepening Search	
Bi-Directional Search	
Informed Search	6
Heuristics	
Uniform Cost Search	
Greedy Search	
Admissible Heuristics	
A* Search	
IDA*	
Adversarial Search	7
Two Person, Perfect Information, Zero Sum Game	
Minimax Search	
Alpha Beta Pruning	
Games of Chance	
Neural Networks (*supervised learning*)	8,9,10
Simple TLU, Linear Seperability	
T-R Agent Production System Conversion to TISA	
Widroff-Hoff Superved Learning	
Generalized Delta	
Error Correction Method	
Multi-Layer Networks (Types of Networks)	
Learning in State-Space (*unsupervised learning*)	10,11
Learning a Heuristic Function on a Search Graph	
Temporal (Difference) Learning	
Value Iteration	
Q-Learning	
Evolutionary Agents (*unsupervised learning*)	11
Representation	
Fitness Functions	
Tournament Selection	
Reproduction and Mutation	
Genetic Programs Representation	