CSI 460 – Artificial Intelligence – Spring 2009
Review Sheet

1. What is AI? What is intelligence? What is rational? Can machines think? Can machines have the same rights as humans?
2. Fields that influenced AI
3. History of AI
4. Rational, What is it?, Acting?, Thinking?, Difference?
5. The Turing Test,
6. Agents
7. Design - PEAS
8. Environments (observable, deterministic, episodic, static, discrete, single)
9. Agent types: reflex, reflex w/ state, goal-based, utility based ==> learning agents
10. Problem Solving (problem types: single-state, conformant, contingency, exploration)
11. State-space
12. Problem Formulation
13. Tree Search -Algorithms
14. States vs. Nodes
15. completeness, optimiality, time and space complexity
16. Uninformed Search Algorithms
17. Search Strategies
18. BFS, DFS, uniform-cost, depth-limited, iterative deepening
19. repeated states
20. Informed Search Algorithms
21. greedy search algorithms
22. best search, A* search
23. heuristics, admissible (optimistic) and consistent, monotonicity
24. developing heuristics: relaxed problems, dominance