Assignment 9
(**Due date: Friday, 5/1/2009, in class**)

Your name:	Grade:

Important notice on how to submit and grade this assignment:

- Write your solutions on **different papers** from the question papers; otherwise, they will NOT be graded.
- You do NOT have to write the question text. You need to **write the question number** for each question.
- Put your solutions in the **same order** as the questions appear on the assignment; otherwise, missed/misplaced solutions will NOT be graded.
- **An extra 10% will be given to those who turned in TYPEWRITTEN submissions).**

The following questions are taken from the textbook Chapter 13 (p. 435-439). **For questions 1 through 30, using A, B, C, D, E, or F as your answers** for each of these questions

For Exercises 1–5, match the type of ambiguity with an example.

A. Lexical
B. Referential
C. Syntactic

1. “Stand up for your flag.”

2. “Go down the street on the left.”

3. “He drove the car over the lawn mower, but it wasn’t hurt.”

4. “I saw the movie flying to Houston.”

5. “Mary and Kay were playing until she came inside.”

For Exercises 6–13, mark the answers true or false as follows:

A. True
B. False

6. A computer does some tasks much better than a human being.

7. A human being does some tasks much better than a computer.

8. A computer system that can pass the Turing test is considered to be intelligent.

9. Some AI researchers don't think we can achieve true artificial intelligence until a computer processes information in the same way the human mind does.

12. A computer has never beaten a human at chess in master-level play.

13. An inference engine is part of a rule-based expert system.

For Exercises 22–30, match the task with who can solve it most easily.

A. Computer
B. Human

22. Identify a dog in a picture

23. Add a column of 100 four-digit numbers

24. Interpret a poem

25. Match a finger print

26. Paint a landscape

27. Carry on an intelligent conversation

28. Learn to speak

29. Judge guilt or innocence

30. Give affection

31. What is the Turing Test?

32. How is the Turing Test organized and administered?

33. What is weak equivalence, and how does it apply to the Turing Test?

34. What is strong equivalence?

35. What is the Loebner Prize?

48. What is an example of a human expert system?

49. What do we call a knowledge-based system that models the expertise of professionals in the field?

50. Why is an expert system called a rule-based system?

51. Which part of the software in an expert system determines how the rules are followed and what conclusions can be drawn?

52. How are the rules expressed in an expert system?

The following questions are taken from the textbook Chapter 16 (p. 525-529). **For questions 1 through 22, using A, B, C, D, E, or F as your answers** for each of these questions

For Exercises 1–12, mark the answers true or false as follows:

A. True
B. False

1. The Internet and the Web are essentially two names for the same thing.

2. The computer that is set up to respond to Web requests is a Web browser.

3. When we visit a Website, we actually bring the site to us.

4. Most search engines use a context-based approach for finding candidate pages.

8. All elements associated with a particular Web page are brought over when a request for that Web page is made.

9. Networks have been used to connect computers since the 1950s.

10. Network communication was not possible until the advent of the Web.

11. The Web was developed in the mid-1990s.

For Exercises 13–22, match the word or acronym with the definition or blank.

A. JSP scriptlet
B. URL
C. HTML
D. Tag
E. Java applet

14. Uniquely identifies every Web page.

15. _____ runs on the Web server.

16. _____ runs on the Web browser.

17. Tags in _____ are fixed.

21. The syntactic element in a markup language that indicates how information should be displayed.

22. Part of a _____ is the hostname of the computer on which the information is stored.

33. What is a markup language? Where does the name come from?

35. Describe the syntax of an HTML tag.

39. Write the HTML statement that inputs the image on file mine.gif into the Web page.

40. Write the HTML statement that sets up a link to http://www. cs.utexas.edu/users/ndale/ and shows the text "Dale Home Page" on the screen.

41. What happens when a user clicks on "Dale Home Page" as set up in Exercise 40?
A copy of the page at http://www.cs.utexas.edu/users/ndale is displayed on the user's browser.

The following questions are NOT from the textbook (use the slides for the solutions).

Draw the search tree in an attempt to solve the eight-puzzle from the following start state, assuming the heuristic used is the same as that developed in the textbook:

1	**2**	**3**
5	**7**	**6**
4		**8**