



SD-3889

M. Sc. (I.C.T.) (Sem. II) Examination
April / May - 2011
Artificial Intelligence

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

नीचे दृष्टावेक निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. Sc. (I.C.T.) (SEM. 2)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="ARTIFICIAL INTELLIGENCE"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="8"/> <input type="text" value="9"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="NIL"/>	<input type="text"/>
	Student's Signature

- (2) Attempt all questions. Question 1,2 and 3 carry 18 marks and question 4 carry 16 marks.
(3) Draw the Figure and give example whenever necessary.

- 1 Answer the following questions: (Any Three) [18]**
1. Show how default logic, abduction and inheritance are used in on monotonic reasoning.
 2. Explain the characteristics of an AI problem that help us in determining which technique should be used to solve the problem.
 3. Compare hill climbing with steepest ascent hill climbing.
 4. Show how cryptanalysis is done effectively by constraint satisfaction method.
- 2 Attempt any three [3] from the following. [18]**
1. Show how the n queen problem can be solved by width wise traversal.
 2. Write a note on the Turing's test.
 3. What are heuristic methods? Give examples of heuristic methods in brief.
 4. Show how genetic algorithms can be useful in solving certain problems.
- 3 Answer any three [3] from the following. [18]**
1. State cases where interaction with a human being also proves in solving the AI problem effectively by narrowing the search space.
 2. Write a note on the issues faced in pragmatic analysis and context analysis in the case of natural language processing.
 3. Give an example of a problem that can be solved using predicate logic.
 4. Give cases where procedural knowledge is used and cases where declarative knowledge is used.

4 Answer the following questions: (Any Two)

[16]

1. Show how backtracking is used effectively in prolog using an example.
 2. Which are the problems of AI for which prolog would be suitable? Take one small problem and develop a program for it.
 3. What are the sections available in each prolog program? What does each section contain?
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