COLLEGE OF ENGINEERING, PUNE
(An Autonomous Institute of Govt. of Maharashtra)
End-Semester Examination- Nov 2012
(CT413) ARTIFICIAL INTELLIGENCE

ELECTIVE-I

Class: - B.Tech. (Computer Engineering & Information Technology)

Year: - 2012-13   **Semester: - VII**

Duration: - 3 hrs.   **Max. Marks: - 50**

Instructions:
  a)   *All the Questions are compulsory.*
  b)   *Assume suitable data whenever necessary.*
  c)   *Draw neat figures wherever required*
  d)   *Figures to right indicate full marks*

Q.1   **A)**   Describe the Hierarchical planning technique in detail. State one real   **[06]**
time example which will describe the functionality of Hierarchical
planning.

B)   Discuss the performance of Min-max search procedure with waiting   **[04]**
for Quiescence variation for any game or puzzle for three players.

Q.2.   **A)**   For each type of Learning Technique state one real time existing   **[06]**
example and discuss its performance.

B)   Natural Language Processing is one of the sub domain in Artificial   **[04]**
Intelligence. Justify the given statement with help of two examples.

Q.3.   **A)**   Intelligent Agent is one of the most important component in any   **[06]**
Artificial Intelligent System. Justify the statement with help of three
real time existing examples.

B)   Explain the importance of Neural Networks with help of two real time   **[04]**
examples.

Q.4. **A)** Heuristics is a terminology used in Artificial Intelligence Area. What **[06]** is the need of it ? Describe any two Heuristic Search methods.

B) What are the differences and similarities between problem solving **[04]** and planning?

Q.5. **A)** Describe the working of A star algorithm for any graph theory **[06]** application. Also analyze its performance.

B) Modify Alpha Beta Cutoffs algorithm for any real time existing game **[04]** application for 3 players. Discuss the performance of newly devised algorithm for same application.