

## SCO 113: C.A.T

03/04/10

### Instructions:

Refer to the discussion question in your group discussion forum and answer the following questions:

1. In your discussion question what makes up a state? **[1 Marks]**
2. What guided you when formulating the state space of this problem? **[1 Marks]**
3. In order to define a solution for your discussion question, how many components for the problem did you identify, state them: **[4Marks]**
4. Identify at least six to ten possible moves which can apply to this problem. Hint for every move describe the conditions/rules, new states and description of the state. **[4 Marks]**
5. By using a search tree describe the state space for this problem **[6 Marks]**
6. From you search tree do you think this problem have more than one solution path? Justify you answer. **[2 Marks]**
7. In your discussion you were required to come up with a heuristic function. By referring to one of the heuristic function explain how it could be applied to obtain an optimal solution for this problem. Use the heuristic function to identify the optimal solution from your search tree. **[2 Marks]**