

Facultad de Ingeniería en Electricidad y Computación

Artificial Intelligence

Homework # 1. Search Mechanisms:

Work as a group and answer each of the following questions. You must hand-in only one document as a group, and place it in SIDWeb, section “Trabajos”. The report must have your names and group number, as labeled in SIDWeb.

DO NOT send the homework via email.

- For each of the following problems, determine as a group, which search method: BREATH FIRST or DEPTH FIRST would you use? In each case justify the answer and report the conclusions.
 - A program for playing tic-tac-toe
 - A program for solving a maze
 - A program to determine if 2 mathematical expressions are equivalent.
- The decision for doing DATA or GOAL DRIVEN search is generally based on the structure of the problem. As a group, discuss and report the conclusions about the characteristics of the structure that the problems should have. Report at least 3 characteristics for data driven and 3 for goal driven search.
- Given the following tree and applying DEPTH FIRST Search, find the path to node Q, starting from node A.

