## Grade 10

**Artificial Intelligence**

**Spring Semester 2020**

**HOMEWORK – 2 (CO3)**

Student Name: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Student ID: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** Section: **2418** Signature:**\_\_\_\_\_\_\_\_\_\_\_**

**Note:** Answer all the following questions.

1. What are the three ways to conclude a design of an agent?
2. Write down the pseudo code for the Simple Problem Solving Agent.
3. Discuss five components in order to define a problem?
4. Define the 8-Puzzle in terms of five components.
5. What is the difference between the Tree Search and Graph Search algorithms?
6. Write down the pseudo code for the Graph Search when problem is given.
7. Complete down the rectangular grid by using the Graph Search.



1. Define uninformed search strategies. Also provide the names of at least three strategies in this area.
2. Write down the pseudo code for the Uniform Cost Search and evaluate its completeness, optimality, time and space.
3. Discuss the steps on the following map if the agent wants to reach from Sibiu to Bucharest using the Uniform Cost Search strategy? Discuss

