

BLG435E, Artificial Intelligence, Fall 2017-2018
Assignment #3

Submission Type: A softcopy report submitted using Ninova. Solution for Q2 must be **handwritten and scanned/photographed** in your report. Note that each student must work individually for this assignment. Team work is not accepted!

Q1) (40 pts) Select and answer one of the following questions. State which question you have selected.

- a) Which AI techniques are used in your favourite video game? Do you suggest any AI techniques that can be used in your favourite video game?
- b) Which AI techniques are used in your favourite mobile application? Do you suggest any AI techniques that can be used in your favourite mobile application?

Q2) (60 pts) Assume that you have the following training examples available for making a plan for the Sunday afternoon.

Example	With Family	Weather	Mood	Decision
1	No	Sunny	Happy	Park
2	No	Cloudy	Happy	Park
3	Yes	Cloudy	Happy	Theatre
4	Yes	Rainy	Sad	Theatre
5	No	Cloudy	Sad	TV
6	Yes	Sunny	Happy	Theatre
7	No	Rainy	Happy	TV

- a) **(50 pts)** Construct the decision tree for the given training set, indicating the steps.
- b) **(10 pts)** Using the decision tree that you construct, classify the following example.

With Family	Weather	Mood	Decision
No	Sunny	Sad	?