**INTRODUCTION MACHINE LEARNING**

**EXERCISE 5**

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Exercise 1 : Gradient Descent (1+1+1=3 Points)

1. Name these concepts:

(a1) xlA

(a2) T

(a3) t

(a4) X(t)

(a5) D(t)

(a6) Al

1. Name this expression: X = {x E X : x| E B} U {x E X : xl B}

(c) What are the three requirements of an impurity function?

(d) What is the hypothesis space of decision trees?

(e) What is the search space of the ID3 algorithm?

(f) What is the difference between the inductive bias of the candidate elimination algorithm and that of

the ID3 algorithm? Hint: search bias and restriction bias.