

## BRAC University Department of Computer Science and Engineering

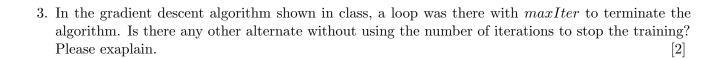
CSE 422: Artificial Intelligence

Quiz 04: Fall 2024 Time: 30 Minutes Marks: 10

Name:	ID:	
1. What is learning rate? How does that affect the gradient des	scent algorithm?	[3]

2. What are the disadvantages of the gradient descent algorithm? How can they be handled?

[2]



4. Following error / loss function is used for linear regression.

$$\mathcal{L}(w) = \frac{1}{2} \sum_{i} (\hat{y}(i) - y(i))^2$$

Is it possible to use this loss function for logistic regression and gradient descent? What changes will be required in the gradient descent algorithm to allow this?