



Inspiring Excellence

BRAC University

Department of Computer Science and Engineering

CSE 422: Artificial Intelligence (B)

Quiz 03: Spring 2025 Time: 30 Minutes Marks: 10

Name		ID		Section	
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1. Suppose there is a error function as the following, $J(\theta) = (\theta - 5)^2$, $\theta = 1$, $\alpha = 0.5$. What will be the value of θ after one iteration of gradient descent algorithm. [2.5]

2. What happens when the learning rate is too low in gradient descent? [2.5]

3. Can we use $\text{relu}(z) = \max(0, z)$ as an alternative of sigmoid function, why or why not? [2.5]

4. Think of a problem where you have to predict what will be the maximum temperature this summer in Bangladesh. What could be features if you are designing it as a machine learning problem. What type of problem it is? [2.5]