

CSE-5368-001 Neural Networks  
Fall 2022 Quiz 02

Time: 12 Minutes

**NOTES:**

- a. Credit is only given to the correct numerical values.
- b. All numerical values must be calculated with three digits of accuracy after the decimal point.

Consider the expression:  $f(x, y) = \max(x, y^2) + \frac{200}{xy}$

Given the inputs  $x = -2, \quad y = 5$

Draw the computational graph.

Calculate the output and show all the numerical values of the feed forward pass.

Calculate the  $\frac{\delta f(x,y)}{\delta y}$  *and*  $\frac{\delta f(x,y)}{\delta x}$  and show all the numerical values of the backward pass.

**You must show all the numerical values as they flow in the forward and backward path.**