

University of Nebraska-Lincoln
Digital Signal Processing: Quiz 3

September 17, 2025

Name: _____

Total Points: 10

1. **(8 points)** A linear time-invariant system has the impulse response $h[n] = a^n \cos[\frac{\pi n}{2}]$. Find the output $y[n]$ for input $x[n] = \delta[n - n_d]$.

2. **(2 points)** What is the range of a ?