

## Quiz 3

**Student Name:**

**NO. :**

A rotating-beam specimen with an endurance limit of 50 kpsi and an ultimate strength of 100 kpsi is cycled 20 percent of the time at 70 kpsi, 50 percent at 55 kpsi, and 30 percent at 40 kpsi. Let  $f = 0.9$  and estimate the number of cycles to failure.