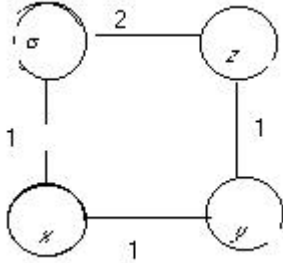


CS2223
HW#5 SOLUTIONS

1. The CONJECTURE is false. For graph



it would return as a longest path from s to z the path of length 2 consisting of the single arc $\{s, z\}$. However, there is a longer simple path from s to z of length 3.

3. **function** *fixpoint*($T[lo..hi]$)
 if $lo > hi$ **then return** “ T does not contain a fixpoint”
 $mid \leftarrow (lo + hi) \text{ div } 2$
 if $T[mid] = mid$ **then return** mid
 if $T[mid] < mid$ **then return** *fixpoint*($T[mid+1..hi]$)
 else return *fixpoint*($T[lo..mid-1]$)