**CSCE 747 - Loop Testing Activity  
Name(s):**

1. **Draw the control-flow graph for the following code:**void Binary\_search (elem key, elem\* T, int size, boolean &found, int &L){  
    int bott, top, mid;  
    bott = 0;  
    top = size-1;  
    L = 0;  
     
    if(T[L] == key){  
    found = true;  
    }else{  
    found = false;  
    }  
     
    while (bott <=top && !found){  
    mid = round((top + bott) / 2);  
    if(T[mid] == key){  
    found = true;  
    L = mid ;  
    } else{  
    if (T [mid] < key ){  
    bott = mid + 1;  
    }else{  
    top = mid-1;  
    }  
    }  
    } // while  
   } //binary\_search
2. **Identify the subpaths through the loop and draw the unfolded CFG for boundary interior testing.**
3. **Write a test suite that achieves loop boundary coverage   
   (That exercises the loops:  
   - Zero times  
   - One time  
   - Two or more times)**