COEN 10 – Quiz IV

10/30/15

1. (24/25 points) What are the elements in array x after the code below executes? Show the numbers!

int i,j;

int x[10];

for (i=0,j=10;i<10;i++,j--)

x[i]=i+j\*2;

20 19 18 17 16 15 14 13 12 11

1. (19/25 points) Write the loop to search for the first zero value in array x and output its position. If there are no zeros in the array, output “no zeroes”. Your code should be efficient for full credit. Assume the size of the array is given by constant SIZE.

int i;

int x;

int flag=0;

scanf("%d",&x);

for(i=0;i<size;i++)

{

if(x[i]==0)

{

printf("%d\n",i);

flag=1;

break;

}

}

if(flag==0)//means no zero found and SHOULD BE AFTER THE LOOP

{

printf("no zeroes\n");

}

return 0;

1. (19/25 points) Write the loop to search for the minimum and maximum in array x and exchange their values in the array. Assume the size of the array is given by constant SIZE. Hint: You only need one loop.

int temp=0;

int i;//position

int x;

int min=x[0];

int max=x[0];

int minpos=0;

int maxpos=0;

scanf("%d",&x);

for(i=0;i<size;i++)

{

if (x[i]<min)

{

min=x[i];

minpos=i;

}

else if(x[i]>max)

{

max=x[i];

maxpos=i;

}

}

x[minpos]=max;

x[maxpos]=min;

1. (20/25 points) Write the loop to shift the elements in array x half its size to the right, so that x[0] goes into x[size/2], x[1] goes into x[size/2 +1], and so on. After shifting, the elements in the left half become zeroes. Assume the array has an even number of elements, and the size of the array is given by constant SIZE.

int i;

int x;

int half=size/2;

for(i=0;i<half;i++)

{

x[i+half]=x[i];

x[i]=0;

}

