

ICS 103
Sample Quiz 3

Question 1 (18 POINTS):

Find the output of the following programs:

I)

```
#include<stdio.h>
int main(void){
    int k, m, n;
    n = 0;
    for(k = -7; k < 13; k += 4){
        n++;
        for(m = 3; m <= 6; m += 5)
            n += 4;
        n += 2;
    }
    printf("%d\n%d\n%d\n", n, k, m);
    return(0);}
```

OUTPUT

II)

```
#include<stdio.h>
int main(void){
    int k = 0, x = 5, done = 0;
    do{
        done = 1;
        scanf("%d", &x);
        for(k = x + 1; k > 4; k--)
            done = 0;
    } while(x != 5 && !done);
    printf("%d %d\n%d\n", x, k, done);
    return(0);}
```

OUTPUT

The Input for this Program is:

6 7 2 5

III)

```
#include<stdio.h>
int main(void){
    int i = 10, j = -6;
    while(i < 12){
        while(-1 > j){
            printf("%d %d\n", i, j);
            j = j + 3;
        }
        i = i + 1;
    }
    printf("%d %d\n", i, j);
    return(0);}
```

OUTPUT

See Next Page!

Question 2: (4 points)

Rewrite the following program by converting all the "for" loops to their equivalent "while" loops:

```
#include<stdio.h>
int main(void){
double sum = 0;
int i, j;
for(j = 20; j <= 201; j += 10)
    for(i = -j; i <= 5; i += j/2)
        sum += i/j;
printf("%f\n",sum);
return 0;}
```

```
#include<stdio.h>
int main(void){
double sum = 0;
int i, j;
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-----
return 0;}
```