

Name:

Id#

ICS 103, Term 093
Computer Programming in C
Quiz# 4

Date: Saturday, August 21, 2010

Q1. Determine the output of each of the following programs:

```
#include <stdio.h>
#include <string.h>
#include <ctype.h>

int main() {
    char str[]="ICS 103 Quiz#4";
    int i=0;
    while (str[i] != '\0') {
        if ( isdigit(str[i]) ) str[i]='*';
        else str[i]=toupper(str[i]);
        i++;
    }
    puts(str);
return 0;
}
```

```
#include <stdio.h>
#include <string.h>
int main() {
    char orig[100]="Ali Ahmad Ibrahim Khaled";
    char updated[100]="", temp[100], *token;
    token=strtok(orig, " ");
    while (token != NULL) {
        strcpy(temp, token);
        strcat(temp, " ");
        strcat(temp, updated);
        strcpy(updated, temp);
        token=strtok(NULL, " ");
    }
    puts(updated);
return 0;
}
```

```

#include <stdio.h>
int main() {
    int x[]={100,5,15,25};
    int i, j = 1, k, t;
    do{
        k = 0;
        for(i = 0; i < 4-j; i++) {
            if (x[i] > x[i+1]) {
                t=x[i];
                x[i]=x[i+1];
                x[i+1]=t;
                k = 1;
            }
        }
        j++;
        for (int i=0; i<4;i++)
            printf("%d ",x[i]);
        printf("\n");
    } while (k==1 && j < 4);
return 0;
}

```

```

#include <stdio.h>
int main() {
    int x[]={1,5,10,20,32,50};
    int s=0, e=5, t=5, m, f=0, w;
    while (s <= e && !f) {
        m=(s + e)/2;
        printf("%d\t%d\t%d\n",s,e,m);
        if (x[m] == t) {f=1; w=m;}
        else if (x[m] < t) s=m+1;
        else e=m-1;
    }
    if (!f) w=-1;
    printf("%d\n",w);
return 0;
}

```