**Name: KEY**                                        **Id#**

## ICS 103, Term 103

## Computer Programming in C
## Quiz# 4

Date: Sunday, August 14, 2011

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

| | |
|---|---|
| ```c\n#include <stdio.h>\n#include <string.h>\n#include <ctype.h>\nint main() {\n  char str1[]={"ICS 103 is Interesting"};\n  char *t;\n  int count=0;\n  t = strtok(str1, " ");\n  while ( t != NULL ) {\n    if (tolower(t[0])=='i'){\n        puts(t);\n        count++;\n    }\n    t = strtok(NULL, " ");\n  }\n  printf("%d\n", count);\n  return 0;\n}\n``` | ICS<br>is<br>Interesting<br>3 |
| ```c\n#include <stdio.h>\nint main(void)\n{ int A[6] = {11,12,19,27,33,42};\n  int i, count=0;\n  for (i=0; i < 6;i++)\n    if ((A[i] % 3)==0) {\n        printf("%d ", A[i]);\n        if ((A[i] % 6)==0)\n            continue;\n        count++;\n    }\n  printf("\n%d", count);\n  return 0;\n}\n``` | 12 27 33 42<br>2 |

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

int main(void) {
    char str[4][80]={"ICS", "SWE", "SE",
"COE"};
    char tstr[80];
    int i, p=1, s;
    do{
      s = 0;
      for(i = 1; i <= 4-p; i++) {
         if (strcmp(str[i-1],str[i])<0){
            strcpy(tstr,str[i-1]);
            strcpy(str[i-1],str[i]);
            strcpy(str[i],tstr);
            s=1;
         }
      }
      p++;
      for (i=0; i<4; i++)
         puts(str[i]);
    } while (s==1 && p <= 3);
    return 0;
}
```

```c
//show the values of matrix A resulting from
//executing the program shown below
#include <stdio.h>
int main (void){
int A[3][4],i,j;
for(i=0; i < 3; i++)
  for(j=0; j < 4; j++)
    if (i < 1)
       A[i][j] = j+2;
    else
       A[i][j] = A[i-1][j]*j;
return 0;
}
```

| 2 | 3 | 4 | 5 |
|---|---|---|---|
| 0 | 3 | 8 | 15 |
| 0 | 3 | 16 | 45 |