ESC101: Fundamentals of Computing(Minor Quiz 2)

4th March, 2014

Total Number of Pages: 2

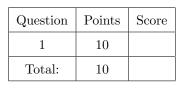
Total Points 10

Instructions

- 1. Read these instructions carefully.
- 2. Write you name, section and roll number on all the pages of the answer book.
- 3. Write the answers cleanly in the space provided. There is space left on the back of the answer book for rough work.
- 4. Do not exchange question books or change the seat after obtaining question paper.
- 5. Using pens (blue/black ink) and not pencils. Do not use red pens for answering.
- 6. Even if no answers are written, the answer book has to be returned back with name and roll number written.

Helpful hints

- 1. The questions are *not* arranged according to the increasing order of difficulty. Do a quick first round where you answer the easy ones and leave the difficult ones for the subsequent rounds.
- 2. For fill in the blanks type of questions, read the comments in the code. They usually have helpful remarks.



Name: Section: Rollno:

Question 1. (10 points) Consider the program given below.

```
1 #include <stdio.h>
2 int f2(int input[], int output[], int n, int k)
3 {
       int i, j = 0;
4
       for (i = 0; i < n; i++) {
5
           if (input[i] < 0) {</pre>
6
7
                break;
           }
8
           if (input[i] % k == 0) {
9
10
                continue;
           }
11
           output[j] = input[i];
12
13
           j = j + 1;
       }
14
      return j;
15
16 }
17
  const int MAX = 10;
18
19 int main()
20 {
21
       int a[MAX], b[MAX], len;
22
       int k;
23
       /* Initialization */
^{24}
       for (k = 0; k < MAX; k++) {
^{25}
           a[k] = -1;
26
           b[k] = -1;
27
      }
^{28}
29
       scanf("%d", &len);
30
      for (k = 0; k < len; k++) {
31
           scanf("%d", &a[k]);
32
33
34
       /* Compute and output the result */
35
       printf("%d: ", f2(a, b, len, 4));
36
37
       for (k = 0; k < MAX; k++) {
           printf("%d ",b[k]);
38
39
40
41
      return 0;
42 }
```

What is the output of the program for the following input?

Input: 7 13 16 17 26 -12 -31 16 Output:

```
Solution: 3: 13 27 26 -1 -1 -1 -1 -1 -1
```