

EE 1910

Dr. Johnson

Homework 11

1 – Provide the final values after executing the following code snippets 30pts

```
x = 1; y = 5; z = 1;
switch(x){
  case 0: x = 4;
         y = 3;
  case 1: x = 3;
  default: y = 5;
         z = 2;
}
```

x: 1 -> 3
y: 3 -> 5
z: 2

| x | y | z |
|---|---|---|
| 3 | 5 | 2 |

```
x = 4; y = 3; z = 1;
switch(x){
  case 0: x = 4;
         y = 3;
         break;
  case 1: x = 3;
         break;
  default: y = 5;
         z = 2;
         break;
}
```

y: 3 -> 5
x: 4
z: 1 -> 2

| x | y | z |
|---|---|---|
| 4 | 5 | 2 |

```
x = 0; y = 3; z = 1;
switch(x){
  case 0: x = 4;
         y = 2;
  case 1: x = 3;
         z = 7;
         break;
  default: y = 5;
         z = 2;
}
```

x: 0 -> 4 -> 3
y: 3 -> 2
z: 1 -> 7

| x | y | z |
|---|---|---|
| 3 | 2 | 7 |

2 – Provide the values printed after executing the following code for each set of inputs. 35pts ea

```
#include <stdio.h>

int fun1(int* foo, int* boo);
int fun2(int foo, int* boo);

int main(void){
    setbuf(stdout, NULL); // disable buffering

    int x, y, z, a, b, c;

    printf("enter x,y,z a,b,c");
    scanf("%i %i %i %i %i %i", &x, &y, &z, &a, &b, &c);

    2 z = fun1(&x,&y);
    33 b = fun2(c,&a);

    printf("x=%i, y=%i, z=%i, a=%i, b=%i, c=%i", x, y, z, a, b, c);
    return 0;
}

        "x"   "y"
int fun1(int* foo, int* boo ){
    int soo;
    switch(*boo){    2
        case 1: *foo = 7;
            *boo = 9;
            soo = 3;
        case 3: *foo = 5;
            soo = *foo + *boo;
            break;
```

```
        case 5: soo = 7;
            break;
        case 7: soo = *foo;
            break;
        default: soo = *boo;
    }
    return soo; 2
}

        6   "a"
int fun2(int foo, int* boo){
    int zoo;
    if(foo > 8){    6
        zoo = *boo;
        foo = 22;
    }
    else if(!(foo % 2)){    1
        foo = 33;
        *boo = foo;    "a" = 33
        zoo = *boo;    33
    }
    else{
        foo = 44;
        zoo = *boo;
        *boo = foo;
    }
    return *boo;    33
}
```

Input

```
x y z a b c
1 2 3 4 5 6
```

| | | | | | |
|---|---|---|----|----|---|
| x | y | z | a | b | c |
| 1 | 2 | 2 | 33 | 33 | 6 |

Input

```
x y z a b c
2 3 4 5 6 7
```

| | | | | | |
|---|---|---|---|---|---|
| x | y | z | a | b | c |
| | | | | | |

3 – Provide the values printed after executing the following code for each set of inputs. 35pts ea

```
#include <stdio.h>

int fun1(int* foo, int* boo);
int fun2(int foo, int* boo);

int main(void){
    setbuf(stdout, NULL); // disable buffering

    int x, y, z, a, b, c;

    printf("enter x,y,z a,b,c");
    scanf("%i %i %i %i %i %i", &x, &y, &z, &a, &b, &c);

    8 z = fun1(&x,&y);
    44 b = fun2(c,&a);

    printf("x=%i, y=%i, z=%i, a=%i, b=%i, c=%i", x, y, z, a, b, c);
    return 0;
}

      "x"  "y"
int fun1(int* foo, int* boo ){
    int soo;
    switch(*boo){      3
    case 1: *foo = 7;
        *boo = 9;
        soo = 3;
    case 3: *foo = 5;    "x" = 5
        soo = *foo + *boo; 5 + 3
        break;

```

```
    case 5: soo = 7;
        break;
    case 7: soo = *foo;
        break;
    default: soo = *boo;
    }
    return soo; 8
}

      7      "a"
int fun2(int foo, int* boo){
    int zoo;
    if(foo > 8){      7
        zoo = *boo;
        foo = 22;
    }
    else if(!(foo % 2)){ 0
        foo = 33;
        *boo = foo;
        zoo = *boo;
    }
    else{
        foo = 44;
        zoo = *boo; 5
        *boo = foo; "a" = 44
    }
    return *boo; 44
}

```

Input
x y z a b c
1 2 3 4 5 6

| | | | | | |
|---|---|---|---|---|---|
| x | y | z | a | b | c |
|---|---|---|---|---|---|

Input
x y z a b c
2 3 4 5 6 7

| | | | | | |
|---|---|---|----|----|---|
| x | y | z | a | b | c |
| 5 | 3 | 8 | 44 | 44 | 7 |