

A6) a)

```
int a;
void do_something(){
    switch (a){
        case 6:
            shutdown();
            break;
        case 5:
            goodbye();
        case 4:
            wind_down();
        case 2:
            wind_up();
            break;
        case 1:
            welcome();
        case 0:
            init();
        default:
            failure();
    }
    return;
}
```

b)

do_something: ;we assume the value of 'a' is stored in eax

```
cmp 6, [eax]
je L6
cmp 5, [eax]
je L5
cmp 4, [eax]
je L4
cmp 3, [eax]
je L3
cmp 2, [eax]
je L2
cmp 1, [eax]
je L1
cmp 0, [eax]
je L0
j Ldefault
```

L1:
welcome()

L0:
init()

L2:
wind_up()
goto Lend

L4:
wind_down()

L5:
goodbye()

L6:
shutdown()
goto Lend

Ldefault:
failure()

Lend:
ret