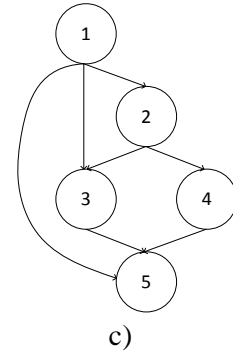
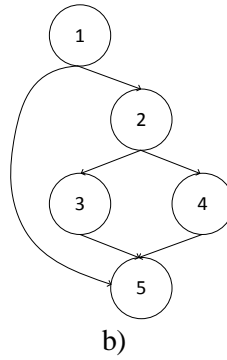
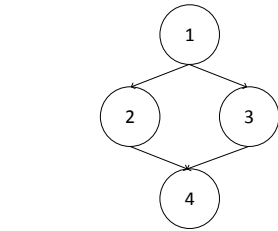


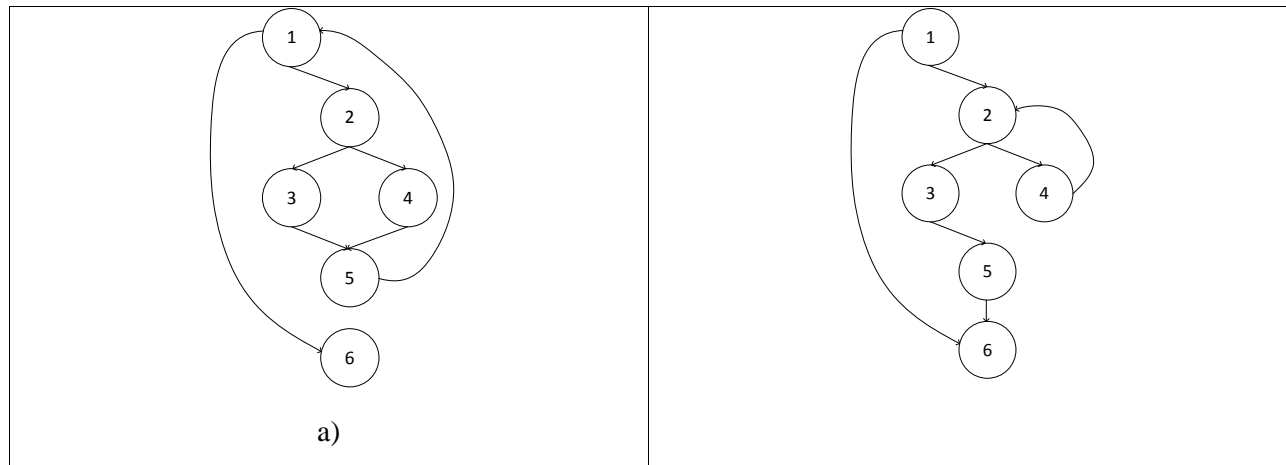
Name:

MSSV:

1. Develop the graph matrices and calculate the cyclomatic complexity of the following flow graph



2.



- a) Find all independent paths:

- b) Suppose the first independent path is 1 – 6

b1. Find all of other independent paths

b2. Find a new path which is not independent path

3. Given the following program

```
int foo(int[] a, int n)
{
    int ret = 0;
    int i = 0;
    while (i < n) {
        if (a[i] % 2 == 0 && a[i] % 4 == 0) {
            ret = ret + a[i];
        }
        i = i + 1;
    }
    return ret;
}
```

a) Draw flow graphs, find basic paths and the corresponding path conditions

b) Resolve question *a* if the condition is **$a[i] \% 2 == 0 \mid \mid a[i] \% 3 == 0$**

c) Resolve question *a* if the condition is if the condition is **$(a[i] \% 2 == 0 \ \&\& \ a[i] \% 4 == 0) \mid \mid a[i] \% 3 == 0$**