LAB EXERCISE – 8

1) Rewrite the following code segment using a multiple-selection statement in C++ and Java:

```
if ((k == 1) || (k == 2)) j = 2 * k - 1
if ((k == 3) || (k == 5)) j = 3 * k + 1
if (k == 4) j = 4 * k - 1
if ((k == 6) || (k == 7) || (k == 8)) j = k – 2
. . .
print j
```

2) Rewrite the following pseudocode segment using a loop structure in C++, Java, Python.
The result will be i=32, k=11:

```
k = 0
loop:
if k > 10 then goto out
k = k + 1
i = 3 * k - 1
goto loop
out:
print i,k
. . .
```

(This a while loop example in Python below

```
count = 0
while (count < 9):
print 'The count is:', count
count = count + 1)
```

3) Rewrite the following C++ program segment in Java and Python by using only IF
statementsand without using a switch statement. The result will be i=3, j=1:

```
j = -3;
for (i = 0; i < 3; i++) {
switch (j + 2) {
case 3:
case 2: j--; break;
case 0: j += 2; break;
default: j = 0;
}
if (j > 0) break;
j = 3 –i;
}
cout<< "\n i = " <<i<< " j = " << j ;
```