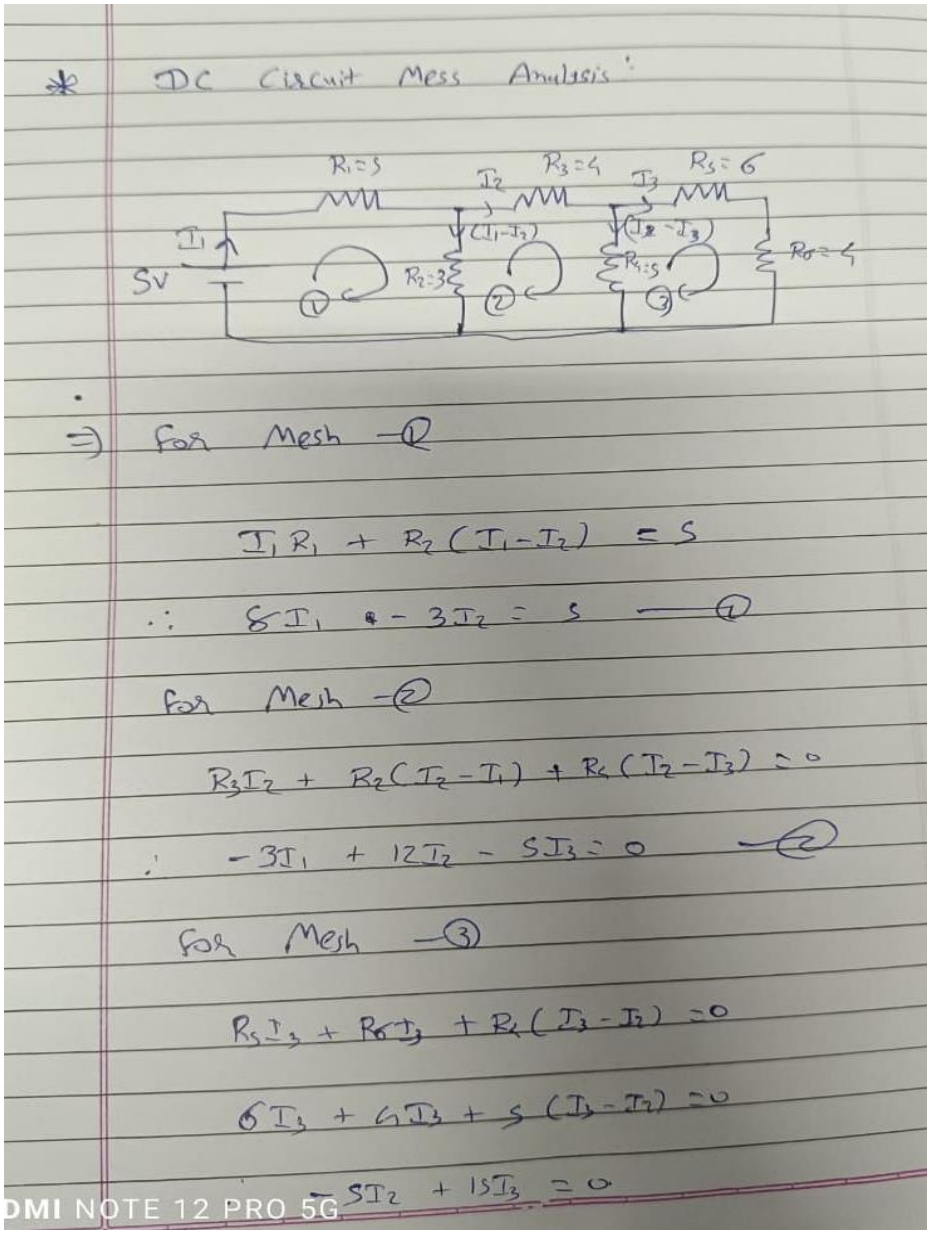
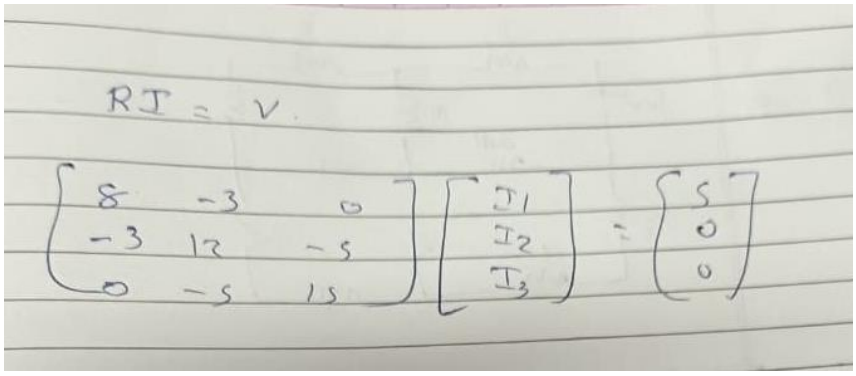
Case Study

- **Mesh current analysis of a DC circuit**
- **Form mesh equations and solve for unknown currents using matrix methods.**



Roll Number = 23BME026



Matlab Code:

```
clc
clear

V = 5;   % source voltage
R = [ 8  -3   0;
    -3  12  -5;
     0  -5  15];
B = [V; 0; 0];
I = R\B;
disp('Mesh currents (A):')
I1 = I(1)
I2 = I(2)
I3 = I(3)
```

Result:

Mesh currents (A):

I1 =0.7014

I2 =0.2036

I3 =0.0679