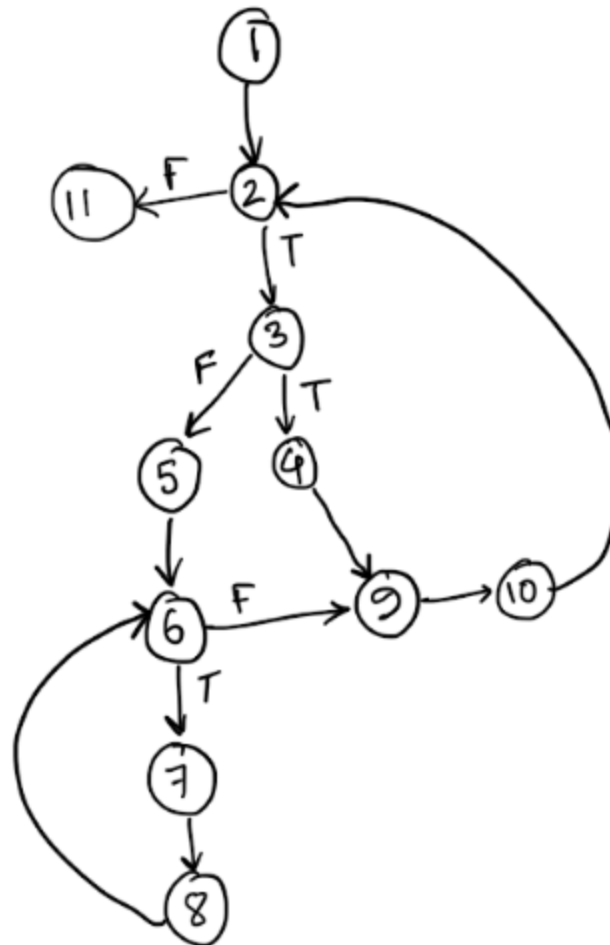


SET A

Line	Code	Node
1	a = 5	1
2	b = 6	1
3	i = 0	1
4	while i < b:	2
5	if a % 2 == 0:	3
6	print(f' {a} is even')	4
7	else :	
8	j = 1	5
9	while j<5:	6
10	print(f' {a} is odd')	7
11	j+=1	8
12	a += 1	9
13	i+=1	10

Set-A



Cyclomatic Complexity:

$R=3, P=3, R+1=P+1=4$

$E = 12, N=10, P=1, 12-10+2(1)=4$

Q2

DIT = 3

NMO= 1 (buttons)

NMA= 1 (pocketCloth)

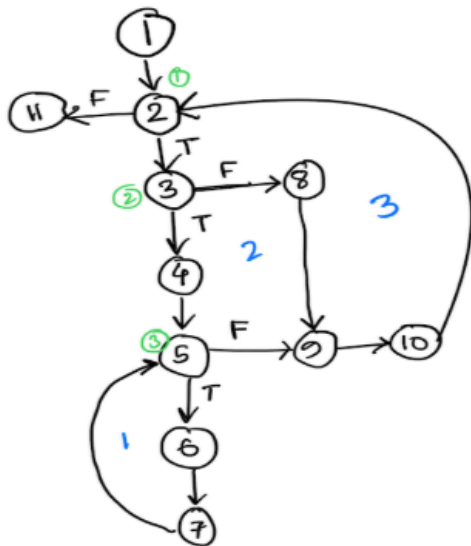
NMI= 3(fabric, pocket, sleeve)

$SIX = (3 \times 1) / 1 + 1 + 3 = 3/5 * 100 = 60\%$

SET B

Line	Code	Node
1	a = 5	1
2	b = 6	1
3	i = 0	1
4	while i < b:	2
5	if a % 2 == 0:	3
6	j = 1	4
7	while j < 5:	5
8	print(f'{a} is even')	6
9	j += 1	7
10	else :	
11	print(f'{a} is odd')	8
12	a += 1	9
13	i += 1	10

Set-B



Here:

$$R = 3 \quad \left. \begin{array}{l} R+1/P+1=4 \\ P=3 \end{array} \right\}$$

$$E = 12$$

$$N = 10$$

$$P = 1 \text{ (conn. comp.)}$$

$$12 - 10 + 2(1)$$

$$= 2 + 2 = 4$$

Q2

$$SIX = \frac{NMO \times DIT}{NMO + NMA + NMI}$$

For Car class:

$$DIT = 3 \text{ (Engine, Transmission, Body)}$$

$$NMO = 1 \text{ (transmission method)}$$

$$NMA = 1$$

$$NMI = 2$$

$$SIX = (1 \times 3) / (1 + 1 + 2) = 0.75 \times 100\% = 75\%$$