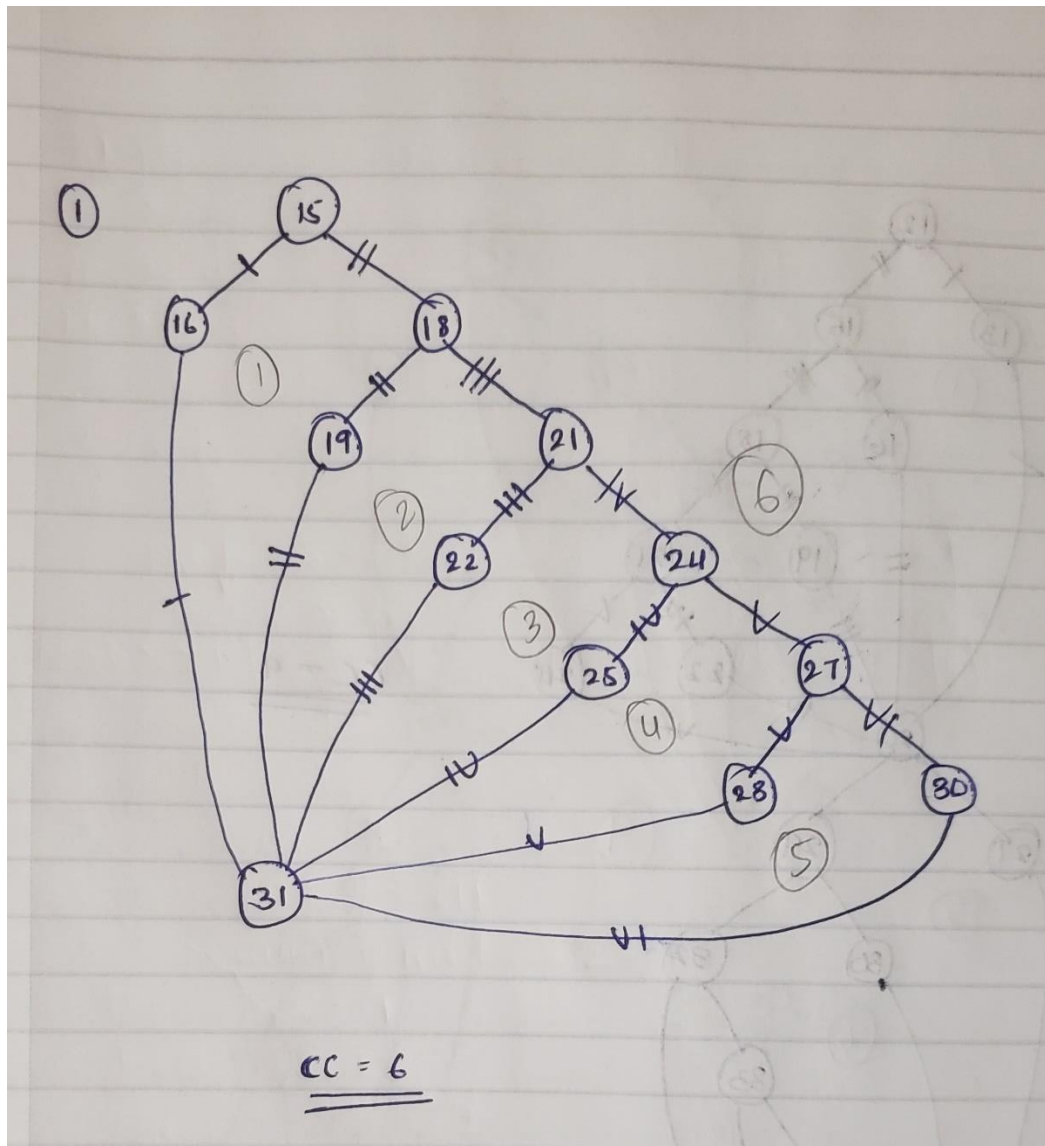


1)



Cyclomatic Complexity: 6

Test Case	batteryPower (Watts)	Red	Yellow	Green	Bell	Siren	Basis Path
1	0.0	FALSE	FALSE	FALSE	FALSE	TRUE	15-16-31
2	49.9	FALSE	FALSE	FALSE	TRUE	FALSE	15-18-19-31
3	75.0	TRUE	FALSE	FALSE	FALSE	FALSE	15-18-21-22-31
4	124.9	TRUE	TRUE	FALSE	FALSE	FALSE	15-18-21-24-25-31
5	250.0	FALSE	TRUE	FALSE	FALSE	FALSE	15-18-21-24-27-28-31
6	250.1	FALSE	FALSE	TRUE	FALSE	FALSE	15-18-21-24-27-30-31
7	0.1	FALSE	FALSE	FALSE	TRUE	FALSE	NA
8	50.0	TRUE	FALSE	FALSE	FALSE	FALSE	NA
9	75.1	TRUE	TRUE	FALSE	FALSE	FALSE	NA
10	125.0	FALSE	TRUE	FALSE	FALSE	FALSE	NA
11	1,000.0	FALSE	FALSE	TRUE	FALSE	FALSE	Extreme Range

### Decision Table

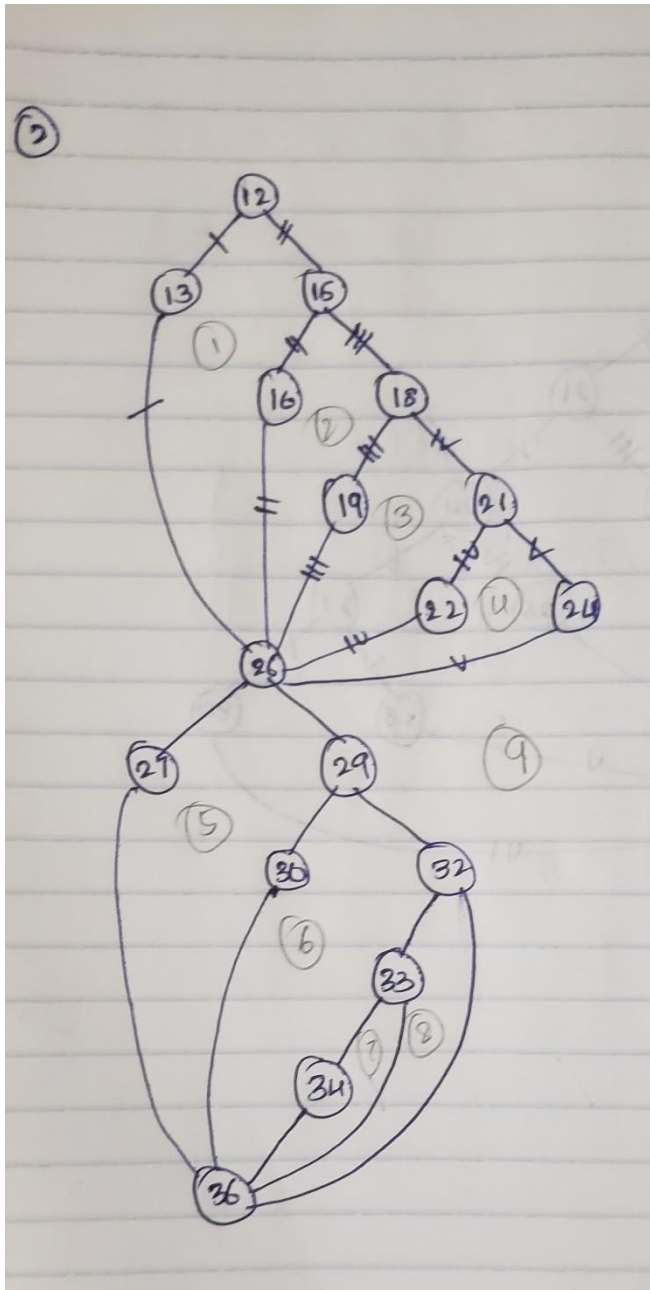
Conditions	Index 0	Index 1	Index 2	Index 3	Index 4	Index 5
batteryPower < 0.1	T					
0.1 <= batteryPower <= 49.9		T				
50.0 <= batteryPower <= 75.0			T			
75.1 <= batteryPower <=124.9				T		
125.0 <= batteryPower <= 250.0					T	
250.1 <= batteryPower <= 1000.0						T
Actions						
Green Light	FALSE	FALSE	FALSE	FALSE	FALSE	TRUE
Yellow Light	FALSE	FALSE	FALSE	TRUE	TRUE	FALSE
Red Light	FALSE	FALSE	TRUE	TRUE	FALSE	FALSE
Bell	FALSE	TRUE	FALSE	FALSE	FALSE	FALSE
Siren	TRUE	FALSE	FALSE	FALSE	FALSE	FALSE

### \*Table Implements First-of-Rule

Code Coverage Achieved: Full Boundary Coverage, Full Statement & Decision Coverage and Extreme Range Coverage

Test cases support or Refute Description: Yes, The Test Cases Support the Functional Description

2)



Cyclomatic Complexity: 5

Test Case	Premium	PolicyHolder	yearsMember	multiPolicies	safetyRating	taxRate	PrimeStatus	totalPremium	Basis Path	MCDC Statement 26-34	Discount
1	\$5,000.01	TRUE	5	TRUE	501	8.25	TRUE	\$4,330.01	12-13-26	TTTT	0.20
2	\$2,000.00	TRUE	5	TRUE	501	8.25	TRUE	\$1,840.25	12-15-16-26	TTTT	0.15
3	\$1,250.01	TRUE	5	TRUE	501	8.25	TRUE	\$1,217.82	12-15-18-19-26	TTTT	0.10
4	\$350.00	TRUE	5	TRUE	501	8.25	TRUE	\$359.93	12-15-18-21-22-26	TTTT	0.05
5	\$349.99	TRUE	5	TRUE	501	8.25	TRUE	\$378.86	12-15-18-21-24-26	TTTT	0.00
6	\$5,000.00	TRUE	5	TRUE	501	8.25	TRUE	\$4,600.63			0.15
7	\$1,999.99	TRUE	5	TRUE	501	8.25	TRUE	\$1,948.49			0.10
8	\$1,250.00	TRUE	5	TRUE	501	8.25	TRUE	\$1,285.47			0.05
9	\$10,000.00	TRUE	5	TRUE	501	8.25	TRUE	\$8,660.00	Extreme Range		0.20
10	\$0.00	TRUE	5	TRUE	501	8.25	TRUE	\$0.00	Extreme Range		0.00
11	\$5,000.01	TRUE	5	FALSE	501	8.25	TRUE	\$4,330.01	MCDC	TFFT	0.20
12	\$5,000.01	FALSE	6	FALSE	501	8.25	TRUE	\$4,330.01	MCDC	FFFT	0.20
13	\$5,000.01	FALSE	5	TRUE	501	8.25	TRUE	\$4,330.01	MCDC	FFTT	0.20
14	\$5,000.01	FALSE	5	FALSE	501	8.25	FALSE	\$4,330.01	MCDC	FFFT	0.20
15	\$5,000.01	FALSE	5	TRUE	500	8.25	FALSE	\$4,330.01	MCDC	FFTF	0.20

## Decision Table

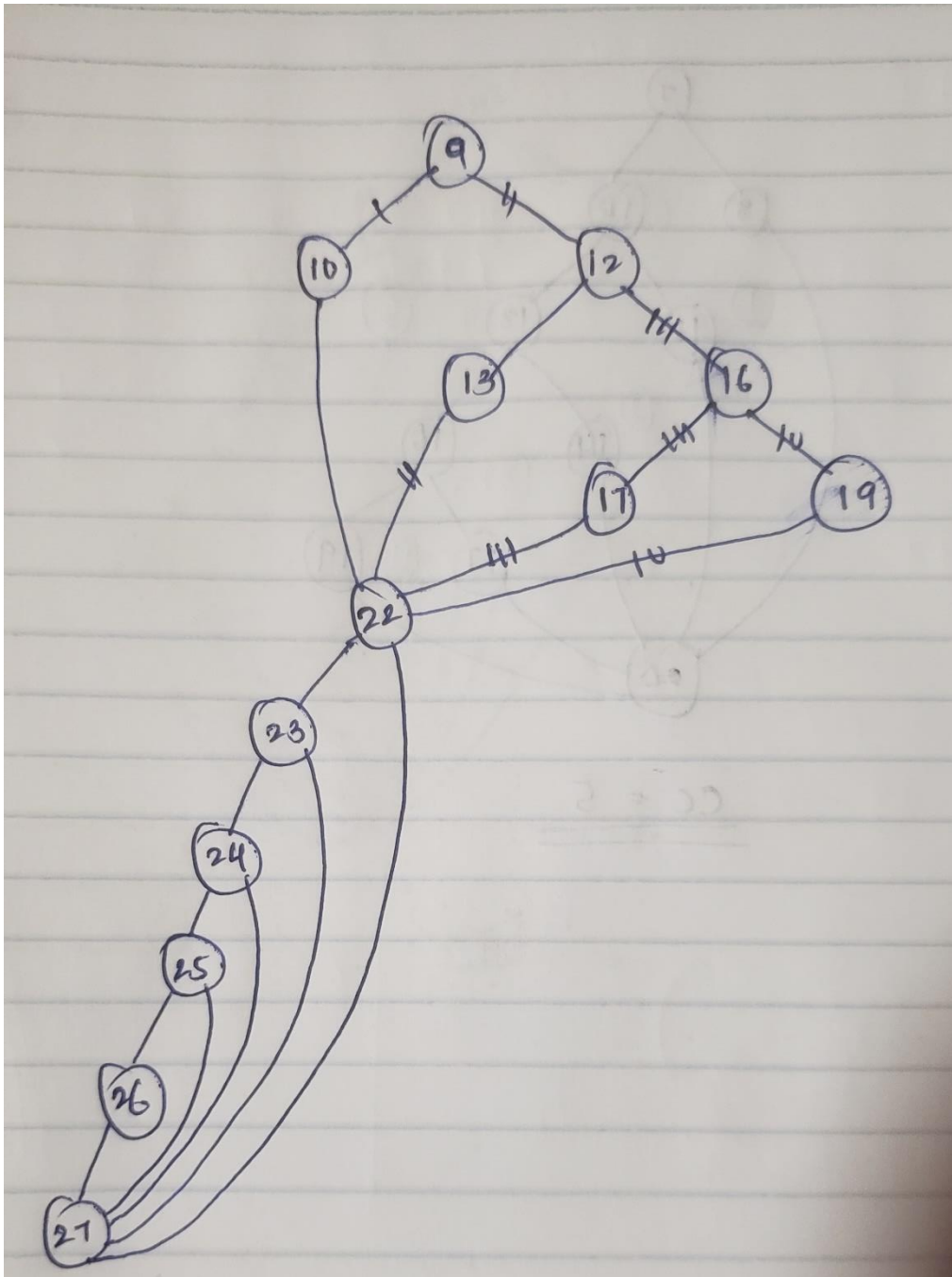
Conditions	Rule-1	Rule-2	Rule-3	Rule-4	Rule-5
\$0.0 <= Premium <= \$349.99	Y				
\$350.00 <= Premium <= \$1,250.00		Y			
\$1,250.01 <= Premium <= \$1,999.99			Y		
\$2,000.00 <= Premium <= \$5,000.00				Y	
\$5,000.01 <= Premium <= \$10,000.00					Y
<b>Actions</b>					
Discount	0	0.05	0.1	0.15	0.2

## \*Table Implements First-of-Rule

Code Coverage Achieved: Full Boundary Coverage, Full Statement & Decision Coverage and Extreme Range Coverage

Test cases support or Refute Description: Yes, The Test Cases Support the Functional Description

3)



Cyclomatic Complexity: 4

### Decision Table

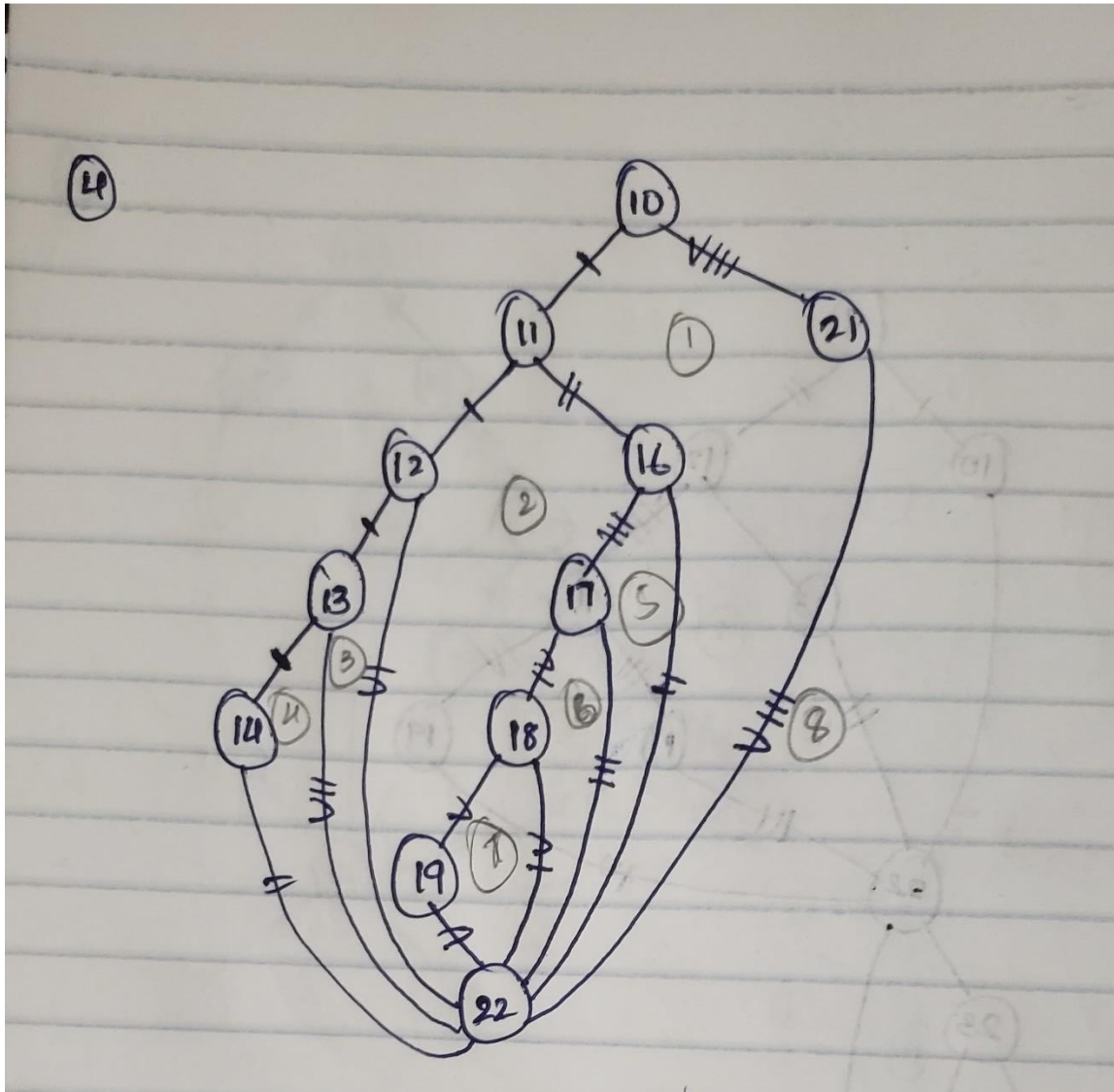
Conditions	Rule 1	Rule 2	Rule 3	Rule 4
0.0 <= Distance <= 74.9	T			
75.0 <= Distance <=100.0		T		
100.1 <= Distance <= 199.9			T	
200.0 <= Distance <= 1000.0				T
<b>Action</b>				
Red Light	TRUE	TRUE	FALSE	FALSE
Yellow Light	FALSE	FALSE	TRUE	FALSE
Green Light	FALSE	FALSE	FALSE	TRUE
Caution	FALSE	TRUE	FALSE	FALSE
Warning	TRUE	FALSE	FALSE	FALSE

### \*Table Implements First-of-Rule

Code Coverage Achieved: Full Boundary Coverage, Full Statement & Decision Coverage and Extreme Range Coverage

Test cases support or Refute Description: Yes, The Test Cases Support the Functional Description

4)



Cyclomatic Complexity: 8

Test case Number	Inputs			Expected Output	Basis Path	MCDC
	Landing	speed (mph)	altitude (ft.)	return		
1	TRUE	500.10	2500.00	engageRetro	10-11-12-13-14-22	TTT & TTF(18)
2	FALSE	500.10	2500.00	disengageRetro	10-21-22	
3	TRUE	500.10	2499.90	Orbit	10-11-12-22	TTF
4	TRUE	149.90	2499.90	Orbit	10-11-16-22	
5	TRUE	500.10	5000.00	Orbit	10-11-12-13-22	TTF
6	TRUE	150.00	1000.00	Orbit	10-11-16-17-22	TTF
7	TRUE	500.00	4999.90	Orbit	10-11-16-17-18-22	TFT
8	TRUE	500.00	2499.90	displayPods	10-11-16-17-18-19-22	TTT
9	TRUE	500.10	4999.90	engageRetro	-	TTT
10	TRUE	1000.00	10000.00	Orbit	-	TTF
11	TRUE	1000.00	0.00	Orbit	-	TTF
12	TRUE	0.00	2500.00	Orbit	-	TFT
13	TRUE	500.00	1000.10	disengageRetro	-	TTT
14	TRUE	149.90	1000.1	Orbit	-	TFT
15	TRUE	149.90	2499.90	Orbit	-	TFT

**Decision Table**

Conditions	Rule-1	Rule-2	Rule-3	Rule-4
landing=true	Y	Y	N	All Others
0.0 <= speed <= 149.9				
150.0 <= speed <= 500.0	Y			
500.1 <= speed <= 1000.0		Y		
0.0 <= altitude <= 1000.0				
1000.1 <= altitude <= 2499.9	Y			
2500.0 <= altitude <= 4999.9		Y		
5000.0 <= altitude <= 10000.0				
<b>Actions</b>				
action = engageRetro (ER), disengageRetro (DR), deployPods = (DP), Orbit = (OR)	DP	ER	DR	OR

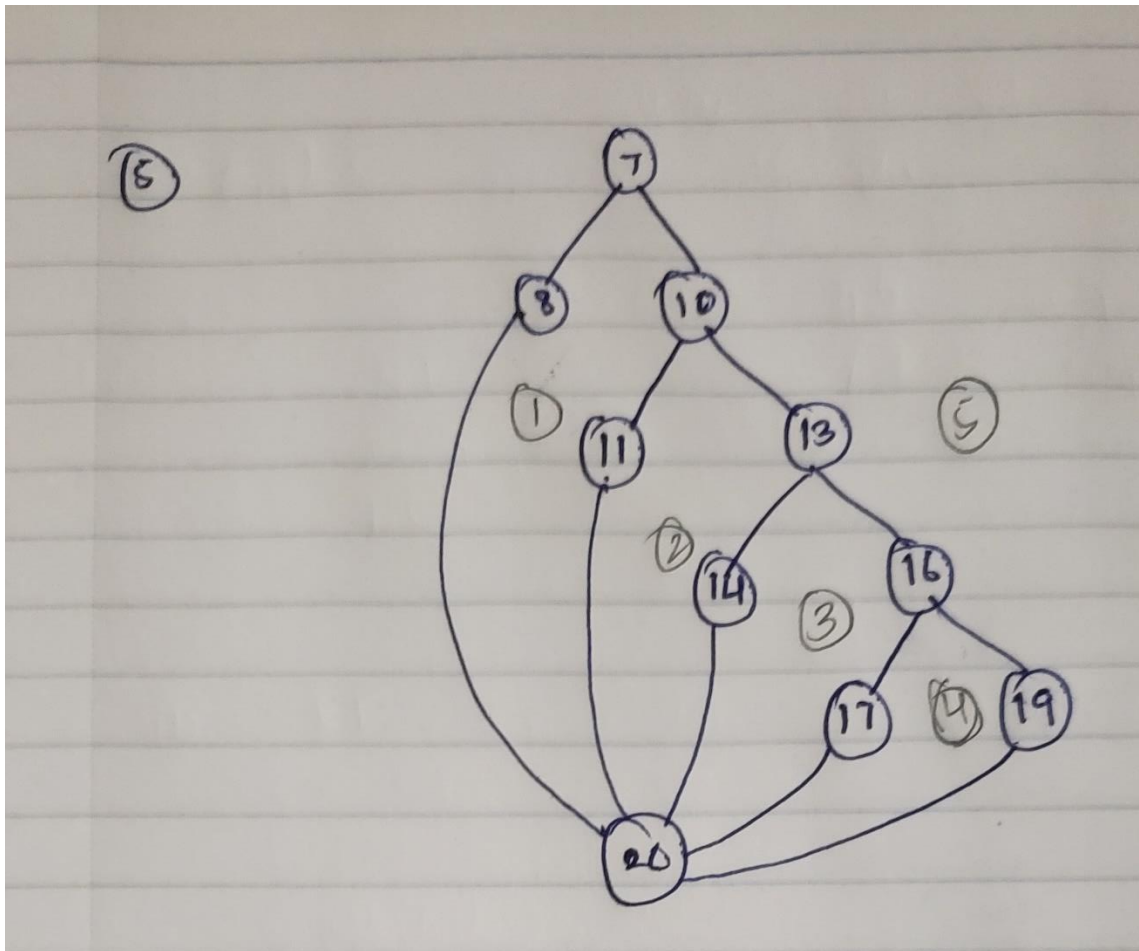
**\*Table Implements First-of-Rule**

**Code Coverage Achieved:** Full Boundary Coverage, Full Statement & Decision Coverage and Extreme Range Coverage

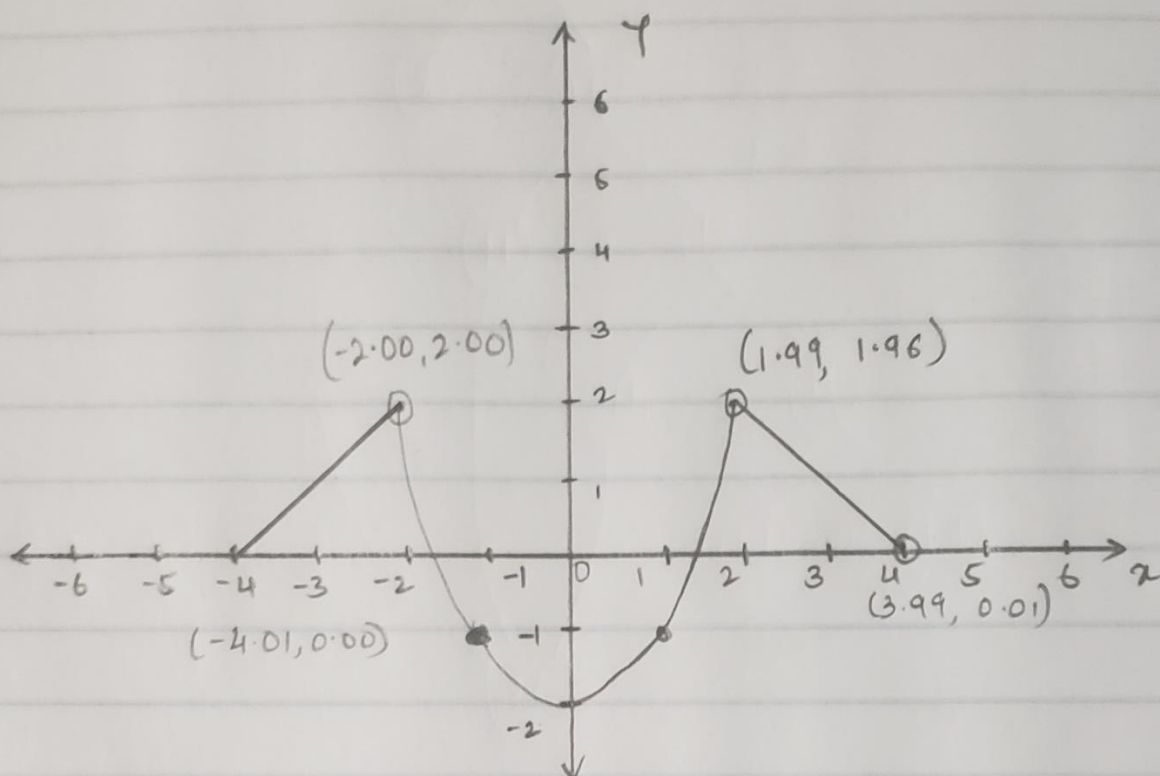
**Test cases support or Refute Description:** Yes, The Test Cases Support the Functional Description



5)



Cyclomatic Complexity: 5



Test Case	Input	Exp. O/P	Basis Path
	X	Y	
1	-4.01	0.00	07-08-20
2	-2.00	2.00	7-10-11-20
3	1.99	1.96	7-10-13-14-20
4	3.99	0.01	7-10-13-16-17-20
5	4.00	0.00	7-10-13-16-19-20
6	-3.00	1.00	NA
7	3.00	1.00	NA
8	0.00	-2.00	NA
9	1.00	-1.00	NA
10	-6.00	0.00	Extreme Range
11	8.00	0.00	Extreme Range
12	-4.00	0.00	NA
13	-1.99	1.96	NA
14	2.00	2.00	NA

**Code Coverage Achieved:** Full Boundary Coverage, Full Statement & Decision Coverage and Extreme Range Coverage

**Test cases support or Refute Description:** Yes, The Test Cases Support the Functional Description