***EXAMPLE 1 -***

**SAMPLE INPUT -**

1 2 3

7 4 5

6 8 0

**SAMPLE OUTPUT -**

1 2 3

8 6 4

7 5 0

**TOTAL NODES EXPLORED -** 42

**TOTAL NODES GENERATED -** 62

**DEPTH:** 8

**PATH-**

1 2 3

7 4 5

6 8 0

1 2 3

7 4 0

6 8 5

1 2 3

7 0 4

6 8 5

1 2 3

7 8 4

6 0 5

1 2 3

7 8 4

0 6 5

1 2 3

0 8 4

7 6 5

1 2 3

8 0 4

7 6 5

1 2 3

8 6 4

7 0 5

1 2 3

8 6 4

7 5 0

***EXAMPLE 2 –***

**INPUT-**

2 8 1

3 4 6

7 5 0

**OUTPUT-**

3 2 1

8 0 4

7 5 6

**TOTAL NODES EXPLORED -** 15

**TOTAL NODES GENERATED -** 21

**DEPTH -** 6

**PATH -**

2 8 1

3 4 6

7 5 0

2 8 1

3 4 0

7 5 6

2 8 1

3 0 4

7 5 6

2 0 1

3 8 4

7 5 6

0 2 1

3 8 4

7 5 6

3 2 1

0 8 4

7 5 6

3 2 1

8 0 4

7 5 6