

*Z.H.C.E.T., Aligarh Muslim University – Aligarh*

**Advanced Computing Lab**

**(COC 3960)**

# **EXPERIMENT R1**

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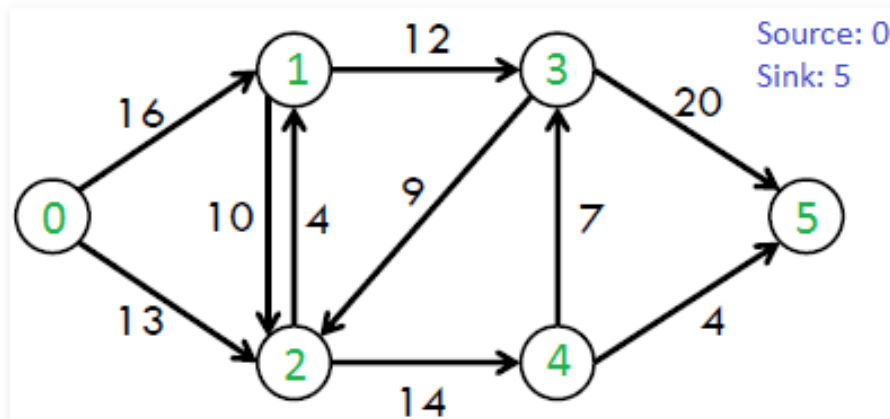
Serial No.: **24**

Class: B. Tech. (A3CO)

**Experiment R1:** Given a flow network, write a program to find the maximum flow using FORD-FULKERSON Algorithm.

### Sample Input:

Below is a sample flow network with source at node 0 and sink at node 5.



```
C:\Users\Ravi Sahani\Desktop\17COB085_COC3960_R1.exe

ENTER THE NO. OF NODES: 6
NODES GENERATED!
Nodes: 0 1 2 3 4 5
ENTER SOURCE NODE: 0
ENTER DESTINATION NODE: 5

ENTER THE FLOW NETWORK:
INPUT -1 TO EXIT

Source Node: 0
Destination Node: 1
Weight: 16

Source Node: 0
Destination Node: 2
Weight: 13

Source Node: 1
Destination Node: 2
Weight: 10

Source Node: 2
Destination Node: 1
Weight: 4

Source Node: 1
Destination Node: 3
Weight: 12

Source Node: 2
Destination Node: 4
Weight: 14

Source Node: 3
Destination Node: 2
Weight: 9

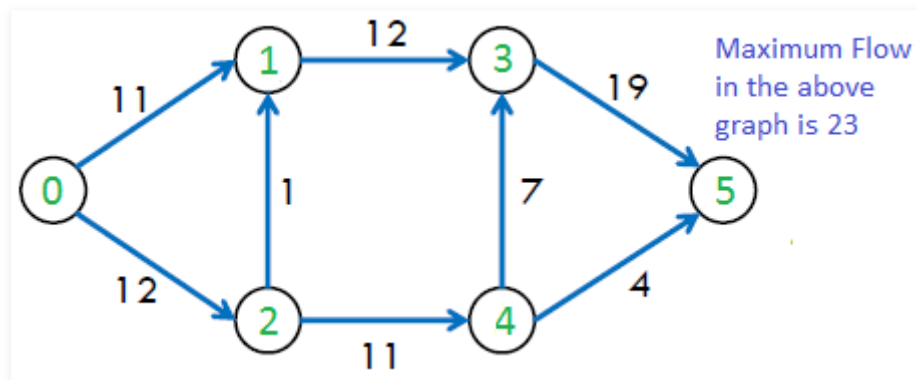
Source Node: 4
Destination Node: 3
Weight: 7

Source Node: 3
Destination Node: 5
Weight: 20

Source Node: 4
Destination Node: 5
Weight: 4
```

### Sample Output:

The solution for the above sample problem would be:



```
C:\Users\Ravi Sahani\Desktop\17COB085_COC3960_R1.exe
ADJACENCY MATRIX:
0      16      13      0      0      0
0      0       10     12      0      0
0      4        0      0     14      0
0      0        9      0      0     20
0      0        0      7      0      4
0      0        0      0      0      0
MAXIMUM FLOW in the given flow network: 23
-----
Process exited after 63.83 seconds with return value 0
Press any key to continue . . .
```