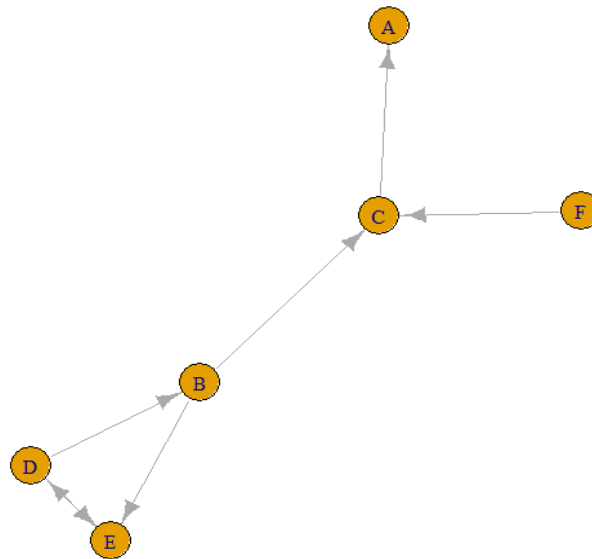


3.)

WebGraph A:



After getting the graph, ran the page rank algorithm through these different damping factor values which are $p = 0.05, 0.25, 0.50, 0.75$, and 0.95 and vectors obtained for each damping vector value are:

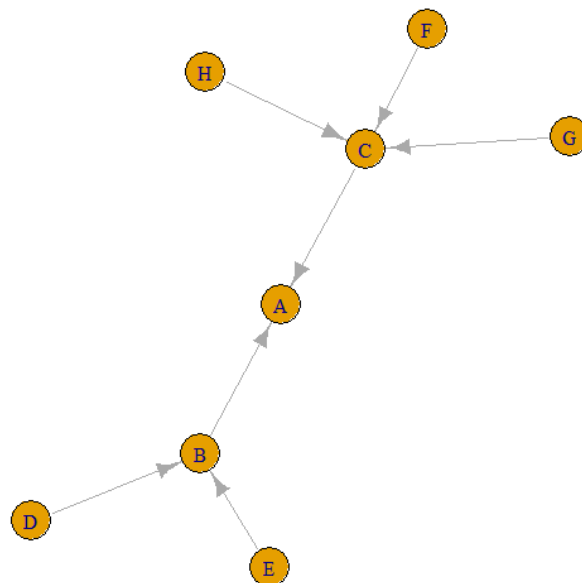
```
> |  
      A      B      C      D      E      F  
0.1683271 0.1639395 0.1718214 0.1681380 0.1680380 0.1597361  
      A      B      C      D      E      F  
0.1786588 0.1544288 0.1848587 0.1758772 0.1737324 0.1324441  
      A      B      C      D      E      F  
0.19399617 0.14778661 0.17077331 0.21832113 0.20320659 0.06591619  
      A      B      C      D      E      F  
0.17305017 0.15761096 0.14454445 0.25658531 0.23247617 0.03573294  
> |
```

$p = 0.05, 0.25, 0.50, 0.75$, and 0.95

From the above table, we can see that when the damping factor is less than 0.5, page C had highest page rank and page A had next highest page rank. And when the damping factor is 0.5, ranking values have changed and page A got highest page rank and then page D.

Looking at the web graph A, as C and E have more incoming links ($n=2$) which is more than any other page.

WebGraph B:



These are the values obtained after computing page rank with damping vector as 0.15

```
> print(pr$vector)
      A      B      C      D      E      F      G      H
0.1541610 0.1418827 0.1582538 0.1091405 0.1091405 0.1091405 0.1091405 0.1091405
> |
```

we can infer that page C has the highest page rank followed by page A and B. As from the graph and the values obtained, we can interpret that a page which has more incoming links will have the highest page rank.