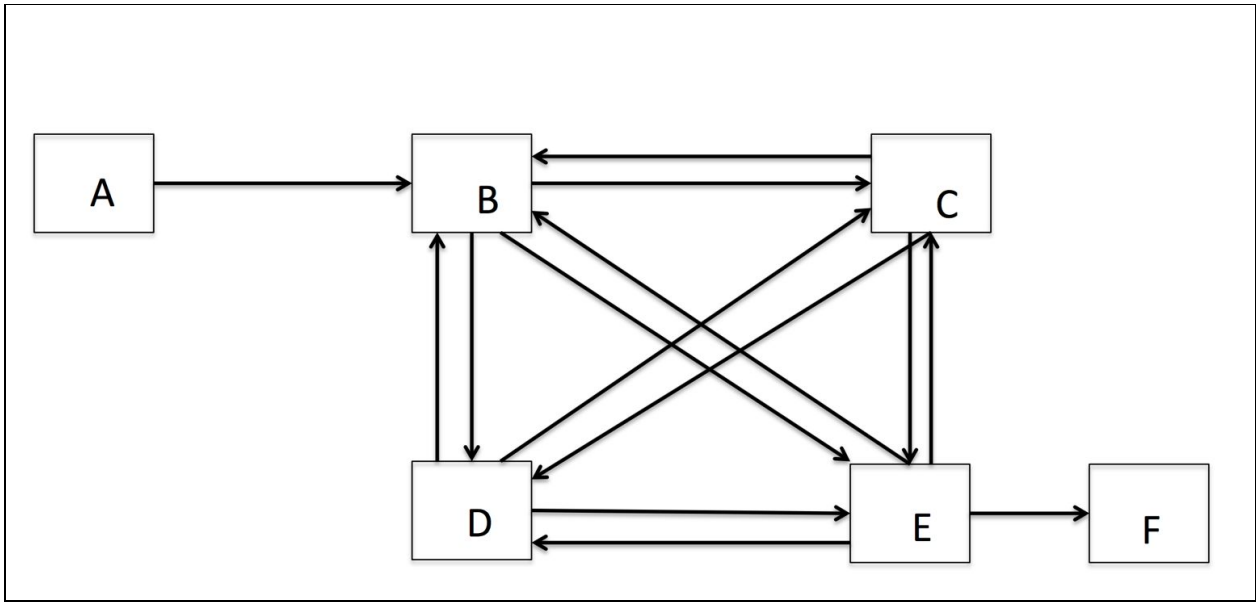
Pradnya Bhumkar

Homework 2

Developing Page rank algorithm for the below graph.



Bita value used for calculation is : 0.85
(1-Bita) : 0.15
Epsilon threshold = 0.0001

Q1 What is the output for Matrix M?

[0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	]
[1.0000	0.0000	0.3333	0.3333	0.2500	0.0000	]
[0.0000	0.3333	0.0000	0.3333	0.2500	0.0000	]
[0.0000	0.3333	0.3333	0.0000	0.2500	0.0000	]
[0.0000	0.3333	0.3333	0.3333	0.0000	0.0000	]
[0.0000	0.0000	0.0000	0.0000	0.2500	0.0000	]

Q2 What is the output of Matrix A? After applying teleportation

[0.0250	0.0250	0.0250	0.0250	0.0250	0.0250	]
[0.8750	0.0250	0.3083	0.3083	0.2375	0.0250	]
[0.0250	0.3083	0.0250	0.3083	0.2375	0.0250	]
[0.0250	0.3083	0.3083	0.0250	0.2375	0.0250	]
[0.0250	0.3083	0.3083	0.3083	0.0250	0.0250	]
[0.0250	0.0250	0.0250	0.0250	0.2375	0.0250	]

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Q3 What is the original rank vector (R)?
[0.1667 0.1667 0.1667 0.1667 0.1667 0.1667]

Q5 a: How many iterations did it take to get the convergence? When you use Matrix M
No of Iterations : 73

Q4 a: What is the Converged rank vector (R')? When you use Matrix M
[0.0000 0.0014 0.0014 0.0014 0.0015 0.0004]

Q5 b: How many iterations did it take to get the convergence? When you use Matrix A
No of Iterations : 76

Q4 b: What is the Converged rank vector (R')? When you use Matrix A
[0.0000 0.0005 0.0005 0.0005 0.0006 0.0001]