

Network Measures: Homework #2

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Problem 1

Given graph(fig.1), compute the three central nodes based on *degree*, *eigenvector*, *Katz*($\alpha = \beta = 0.3$), *PageRank*, *betweenness* and *closeness* centrality methods. You should implement all these centrality methods by c, c++, java or c#

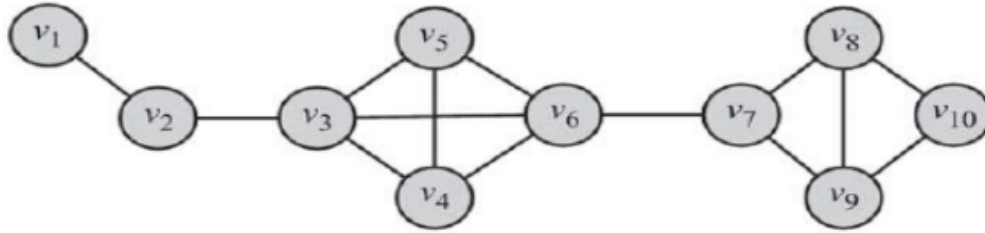


Figure 1: Graph

Solution

Table 1: Results

| | First node | Second node | Thrid node |
|------------------------|------------|-------------|------------|
| degree centrality | | | |
| eigenvector centrality | | | |
| Katz centrality | | | |
| Pagerank centrality | | | |
| betweenness centrality | | | |
| closeness centrality | | | |