

Computer Science and Engineering Department, SVNIT, Surat
B. Tech. III, Semester-VI
Academic Year – 2023-24
CS342 - Social Network Analysis

Assignment 2: Graph Centrality Measures using Networkx

Due date of submission: 2nd February, 2024 11:59 pm.

(a) Generate the graph shown in figure 1 using Networkx and display the following network measures:

- 1) Degree Distribution
- 2) Degree centrality
- 3) Closeness centrality
- 4) Betweenness centrality
- 5) Clustering coefficient

(b) Generate the graph shown in figure 2 using Networkx and display its Eigenvector centrality.

(c) Consider the famous social graph published in 1977 called Zachary's Karate Club graph. It is an in-built Graph in Networkx. Demonstrate all the centrality measures for this Graph in NetworkX.

Figure 1:

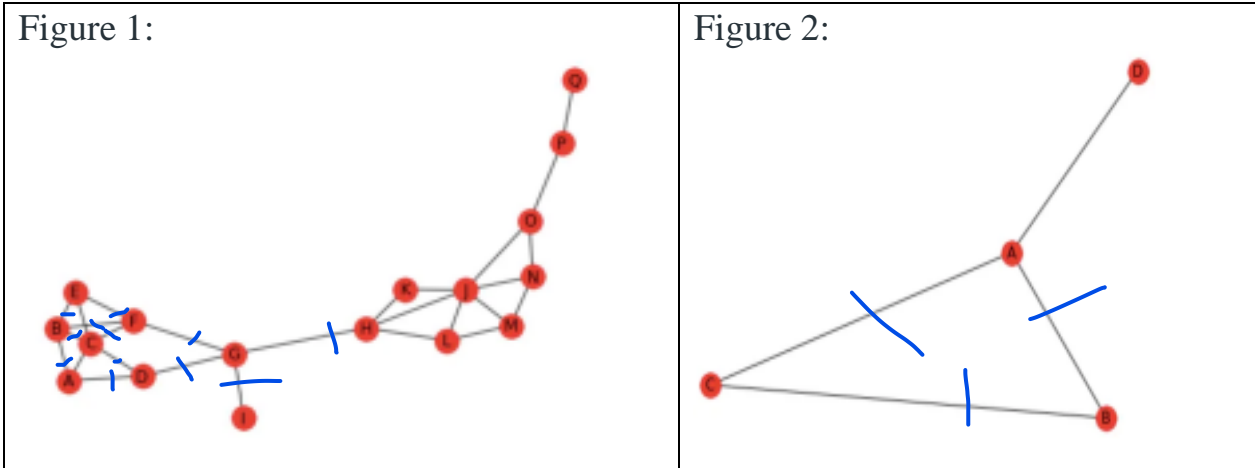


Figure 2:

