B

C

A

E D

(5 points) Discuss whether the computed PageRanks match the intuition of the importance of Web pages based on the graph. Focus on the two pages that have the smallest and the largest PageRanks.

Page e (Smallest PageRank):

In the graph, Page e has no outgoing links. This means it does not contribute to the popularity of other pages by linking to them.

Since Page e has no outgoing links and is not connected to any other page, it is expected to have a low PageRank compared to other pages.

The computed PageRank for Page e is approximately 0.083, indicating that it is less important or influential compared to other pages in the graph. This matches the intuition that a page with no outgoing links and connections is less important in terms of PageRank.

Page a (Largest PageRank):

Page a has outgoing links to pages b and c. Both pages b and c also have incoming links from other pages in the graph.

Additionally, Page b has outgoing links to pages d and e, and Page c has an outgoing link to page d.

Page a acts as a hub in the graph, connecting to other pages and indirectly influencing their importance.

The computed PageRank for Page a is approximately 0.265, indicating that it is the most important page in the graph based on the PageRank algorithm.

This matches the intuition that a page serving as a hub, connecting to other pages with incoming links, tends to have higher importance in terms of PageRank.