

Exercises:

Answer All question in an answer sheet (word) and submit only ONE document in the pdf format to Smartv3. Please state your name and matric number clearly on the front page.

1. Consider the distance matrix for 4 data points as in the following. Apply a hierarchical agglomerative approach, with the use of maximum criteria for merging. Show the process of merging.

	D1	D2	D3	D4
D1	0	1.78	3.46	4.97
D2	1.78	0	2.04	3.64
D3	3.46	2.04	0	4.48
D4	4.97	3.64	4.48	0

2. Find the Davis-Bouldin Index (DBI) for the following clusters.

Cluster 1 2.0 3.0
_____ 2.5 2.5

Cluster 2 1.0 3.0
_____ 3.0 1.0

Cluster 3 4.0 0.5
_____ 3.5 0.5

Cluster 4 5.0 6.0
 4.0 6.5
_____ 5.5 5.5