MSLIS Semester 3 MIDTERM TEST

Paper 11: Information Retrieval 18 September 2023 (1130 hrs – 1300 hrs)

Q1. Explain histogram and thresholding. Plot the histogram for the data created of your choice within the range of 4 bits/pixel in a 5 x 5 array, and threshold that data by choosing a threshold value lesser than or equal to the median value of the data.

[12 marks]

Q2. Compute spatial autocorrelation via Moran's Index for a spatial field by choosing a maximum of five real values in an array of 3 x 3 size. Show all steps involved in computing Moran's I. Write its importance in the context of information retrieval.

[12 marks]

Q3. What is delimiter space? Write on how the (i) Rectangular Granulometries and (ii) Morphological Shape Decomposition would help characterise the geometric complexity of delimiter space. [16 marks]

END OF PAPER.