

INDIAN STATISTICAL INSTITUTE
THIRD SEMESTER EXAMINATION, 2023/25 SESSION
PAPER - 11: INFORMATION RETRIEVAL
(MASTER IN LIBRARY INFORMATION SCIENCE)
09 September 2024 (11:30-13:00) (90 Minutes)

- Q1.** Explain how to plot the histogram for the data created of your choice within the range of 4 bits/pixel, and threshold that data by choosing the threshold value more than the median value of the data. Explain how the thresholding techniques are useful in Information Retrieval. **[10 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 3×3 size. Show all steps involved in computing Moran's I. Write its importance in the context of information retrieval. **[15 marks]**
- Q3.** Write about the computation of the Information dimension via multifractal spectra and the relevance of such an Information Dimension in Information Retrieval **[15 marks]**

END OF PAPER.