## MSLIS Semester 4 MIDTERM TEST Paper 21: Geographical Information Systems 27 February 2020 (11.30AM - 1.30PM)

Q1. Write briefly about the following:

(a) Digital Elevation Model (DEM)

(b) Geographical Information Science (GISci)

(c) Important ingredients of Spatial Data Science

(d) Role of spatial scale in spatial and temporal models

Q2. Explain roughness estimation from DEM via grayscale granulometric analysis with illustrations and equations. [14 marks]

Q3. Explain how morphological skeletonization transformation is useful in retrieval of two unique topological networks that are hidden in a DEM. [14 marks]

[12 marks]