M. SC. GEOINFORMATICS (MSCGI)

Term-End Examination December, 2023

MGY-006: SPATIAL ANALYSIS AND MODELLING

Time: 2 Hours Maximum Marks: 50

Note: (i) All questions are compulsory.

- (ii) Marks of each question are indicated against it.
- 1. Write short notes on any *four* of the following:

 $4 \times 5 = 20$

- (a) GIS for space-time modeling
- (b) Watershed analysis
- (c) Hardware requirements for a GIS lab
- (d) GIS project planning
- (e) Methods of local operations in raster anlaysis
- (f) Scope of python programming in GIS

2. (a) What is data integration? Discuss the methods of integration of remote sensing and GIS.

Or

- (b) What is path analysis? Discuss the different methods of network analysis.
- 3. (a) Discuss buffering and different types of buffers with neat diagrams. 10

Or

- (b) What is spatial data mining? Discuss techniques of spatial data mining.
- 4. (a) Explain 3D data representation in detail.

10

Or

(b) Discuss in detail about the geostatistical tools and techniques.