No. of Printed Pages : 2 **MGGL–003(Set-I)**

MASTER OF SCIENCE IN GEOGRAPHY (MSCGG)

Term-End Practical Examination

December, 2025

MGGL-003(Set-I) : GEOSPATIAL ANALYSIS

Time : 3 Hours *Maximum Marks : 50*

Note : *Attempt any* ***five*** *questions. Marks are indicated against each question.*

1. What is the purpose of landuse/landcover classification ? Classify a satellite imagery into at least 5 classes using supervised classification technique. 10

2. What is connectivity analysis ? Conduct a connectivity analysis on a network of roads to determine the closeness of a facility from a given point. 10

3. Reproject a given vector layer from geographic coordinates system to UTM WGS84. Measure the distance and area of specific polygons. 10

4. What is georeferencing and transformation ? Georeference a scanned map using Ground Control Points (GCPs). 10

5. Derive slope and aspect from a Digital Elevation Model (DEM). Generate a Triangulated Irregular Network (TIN). 10

6. Generate an Origin-Destination (OD) matrix from a network data. Find the shortest path between two nodes. 10

7. What is hydrological modelling ? Extract drainge network from DEM and delineate watershed and sub-watershed. 10

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