

**MASTER OF SCIENCE IN
GEOGRAPHY (MSCGG)**

**Term-End Practical Examination
June, 2025**

MGGL-003(Set-II) : GEOSPATIAL ANALYSIS

Time : 3 Hours

Maximum Marks : 50

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

1. Differentiate between spatial and non-spatial data with examples. Join the given spatial and non-spatial data and explain the steps followed. 10
2. Georeference a scanned map of the basis of another georeferenced map of the same area. Explain the steps followed for georeferencing. Explain Spaghetti, topological and geodatabase. 10

3. Create a geodatabase and add point, line and polygon features as different layers. 10
4. Explain the concept of data integration in GIS. Integrate GPS collected field points with the base layer given and reproject the same. 10
5. List the key inputs required for hydrological runoff modelling. Describe how GIS aids in estimating catchment runoff. 10
6. Mention the steps needed to download Sentinel-2 satellite data. Clip the downloaded Sentinel-2 imagery on the basis of extent given and map the built-up areas from the imagery. 10
7. Describe the step-by-step process of density and hotspot analysis using the given data. 10

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