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MGY-006

**M. SC. (GEOINFORMATICS)/POST
GRADUATE DIPLOMA IN
GEOINFORMATICS)
(MSCGI/PGDGI)**

Term-End Examination

June, 2026

**MGY-006 : SPATIAL ANALYSIS AND
MODELLING**

Time : 2 Hours

Maximum Marks : 50

Note : (i) *All questions are compulsory*

(ii) *The marks for each question are indicated against it.*

1. Write short notes on any *four* of the following : 4×5=20

- (i) Types of buffers
- (ii) Importance of surface modelling
- (iii) Components of a dynamic GIS model.

- (iv) Hardware requirements for a well-equipped GIS lab.
 - (v) GIS system development life cycle.
 - (vi) Spatial distance measurements.
2. (i) What is a Model ? Discuss various types of models available in GIS.

2+8

OR

- (ii) What is network analysis ? Discuss various methods of network analysis in GIS.
3. (i) With the help of neat diagrams, explain the tools used in feature manipulation operation.

10

OR

- (ii) Discuss the difference between 3D vector and 3D raster data analysis.

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4. (i) Discuss in detail the geostatistical tools and techniques. 10

OR

- (ii) Discuss how cost-distance analysis is performed giving a suitable example.

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