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MGY-006

M. SC. (GEOINFORMATICS) (MSCGI)

Term-End Examination

December, 2024

MGY-006 : SPATIAL ANALYSIS AND MODELLING

Time : 2 Hours

Maximum Marks : 50

Note : *All questions are compulsory. Marks for each question are indicated against it.*

1. Write short notes on any *four* of the following :

4×5=20

- (a) Use of GIS database as a source of ancillary data in RS image classification
- (b) Object-relational and entity-relationship models
- (c) Spatial relationship between variables
- (d) Output functions
- (e) GIS programming
- (f) Applications of watershed analysis

2. (a) Explain the role of line-of-sight operation while conducting viewshed analysis. Discuss the various factors that can affect the outcome of a viewshed analysis. 10

Or

- (b) (i) Discuss the methods of zonal operations in raster analysis. 5
- (ii) Discuss the functions of mosaic tool. 5
3. (a) What is network analysis ? Discuss the various applications of network analysis. 10

Or

- (b) What is Database Management System ? Discuss the functions and characteristics of DBMS. 10
4. (a) Discuss the difference between 3D vector and 3D raster data analysis. 10

Or

- (b) Discuss how the contribution of remote sensing in integrating with GIS technologies and vice-versa can support the process of data integration. 10

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