

M. SC. (GEOINFORMATICS) SEM-III (CBCS) (2013 COURSE)

: WINTER - 2017

SUBJECT: SPATIAL ANALYSIS AND MODELING

Day: **Thursday**
Date: **23/11/2017**

Time: **02.00 PM TO 05.00 PM**
Max Marks. 60

W-2017-1002

N.B.

- 1) Answer any **FIVE** questions.
 - 2) Figures to the right indicate **FULL** marks.
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- Q.1** a) What do you understand by cost surface analysis? Describe one application that uses cost surface analysis in detail. (06)
- b) Differentiate between local and focal operations. (06)
- Q.2** a) Describe three applications of buffering in urban management. (06)
- b) What are the various types of distance measurements in GIS. Differentiate between them. (06)
- Q.3** a) Describe two applications of semi-variograms in spatial analysis. (06)
- b) Differentiate between DEM and TIN with respect to data, method of construction and applications. (06)
- Q.4** a) Describe the various factors that influence watershed analysis. (06)
- b) Differentiate between binary and index models. (06)
- Q.5** a) What is reclassification? Give three examples of its significance in GIS analysis. (06)
- b) What is terrain mapping? Describe the methodology and its application? (06)
- Q.6** Write short notes on any **THREE** (12)
- a) Neighborhood operations
 - b) Elements of spatial interpolation
 - c) Thiessens polygons
 - d) Krigging

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