M.Sc. Geoinformatics CBCs Sem-II. 31476 2013 Course

KANERAGAD – III (CBCS): WINTER – 2016 SUBJECT : SPATIAL ANALYSIS & MODELING (2013 COURSE)

SUBJECT: SPATIAL ANALYSIS & MODELING Friday Time: 2.00 P.M. To 5.00 P.M : 18-11-2016 Max. Marks: 60 N.B.: 1) Attempt ANY FIVE questions. 2) Figures to the right indicate FULL marks. Q.1 Spatial models might describe basic properties and processes for a set of spatial [12] features. Write short notes on: a) Cartographic Models b) Spatio-temporal Models Q.2 Answer the following in detail: [12] What is Voronoi Analysis? Draw a small symbolic Voronoi (Thiessen) diagram for randomly distributed points. b) Explain why buffers are most widely used GIS functions. Q.3 Answer the following in detail: [12] a) What is spatial sampling for interpolation? What is difference between random sampling and stratified random sampling? b) Trend surface analysis is global, inexact and deterministic. Explain. Q.4 Answer the following in detail: [12] a) What are the most important qualities required to be good spatial analyst? b) Explain weight based model using an example. 0.5 Answer the following in detail: [12] a) What is spatial regression? How it is different from IDW interpolation? b) Explain watershed by the drop-of-water principle. Q.6 Write short notes on ANY THREE of the following: [12] a) Vertical profiling

d) Stochastic Model and Deterministic Model

b) High and low clustering - pattern analysis

c) Role of buffer in spatial analysis

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b) High and low clustering - pattern analysis

Role of buffer in spatial analysis

Write short notes on ANY THREE of the following:

Q.6

a) Vertical profiling