

**M. Sc. (GEOINFORMATICS) SEM – III (CBCS – 2019 COURSE): WINTER – 2021**  
**SUBJECT : SPATIAL ANALYSIS & MODELING**

Day : *Tuesday*  
Date : *04-01-2022.*

Time : *10:00AM TO 1:00 PM.*  
Max. Marks : 60

*W-2021-21269*

**N.B.:**

- 1) Attempt **ANY FIVE** questions.
- 2) Figures to the right indicate **FULL** marks.

- 
- Q.1** a) Describe any three applications of buffer with examples and diagrams if any. [06]
- b) Both nearest neighbor analysis and Moran's I can apply to point features. How do they differ in terms of input data? [06]
- Q.2** a) You have been asked to produce a raster that shows the average precipitation in each major watershed in Mulshi tehsil. Describe the procedure you will follow to complete this task. [06]
- b) Describe neighbourhood operations with two examples. [06]
- Q.3** a) Explain how the viewing azimuth, viewing angle, viewing distance and z-scale can change a 3-D perspective. [06]
- b) How does an exact interpolation method differ from an inexact interpolation method? [06]
- Q.4** a) How do IDW and kriging differ from each other? [06]
- b) Describe three applications of the least cost path analysis. [06]
- Q.5** a) Differentiate between a binary model and an index model. [06]
- b) Describe location – allocation analysis. [06]
- Q.6** Write short notes on **ANY THREE** of the following: [12]
- a) Filled DEM
  - b) Regression models
  - c) Thiessen polygon
  - d) Cost distance

\* \* \* \*