# Parvatibai Chowgule College of Arts and Science Autonomous

B.Sc. Semester End Examination, Jan/Feb 2022

Semester: III

Subject: Geography

Course Title: Spatial Analysis (Elective)

Duration: 2hrs Max. Marks: 45

**Instructions:** 

- 1. All questions are compulsory.
- 2. Figures to right indicate full marks
- 3. Illustrate your answers with suitable examples/ diagrams

# Q1 Answer ANY THREE from the following.

(03x03=09)

- a) What is Lidar? Explain its types based on physical process
- b) What is Digitization?
- c) List out the advantages of open source software over commercial software?
- d) What are geographical coordinates system?

### Q2. Answer ANY TWO from the following.

(06x02=12)

- a) Define the term Topology and explain the process of creating topology?
- b) How digital elevation models help in infrastructure development of a region
- c) Use of GIS leads to better decision making in government. Elaborate the statement.

# Q3 Answer ANY TWO from the following.

(06x02=12)

- a) What are map projections? Explain in detail diverse types of projections.
- b) Differentiate Geodatabase and shape file? What is the main attributes of geodatabase are shape file.
- c) Explain the concept of interpolation and differentiate between different methods of interpolation.

### Q4. Answer **ANY ONE** from the following.

(12x01=12)

a) Smart city planning was introduced in India in the year 2015. Highlight the importance of Geospatial technology in such mega projects. Justify the answer with suitable example.

#### OR

b) Draw the layout for performing operation using spatial analysis for Site Suitability analysis and discuss are the indicators are taken into consideration

for carrying out analysis.

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