KANYASHREE UNIVERSITY

M.A. / M.SC 1st SEMESTER EXAMINATION 2022

Subject- Geography

Course- CC - 106

Geospatial Analysis

Full Marks- 40 Time- 2.00 Hours

Group- A

[Answer **any four** questions] (4x5=20 marks)

1. Write a short note on the applicability of Rank Size Rule in determining settlement hierarchy.
2. Highlight the significance of Hypsometric Integral in landscape study.
3. State the properties of any two IRS sensors.
4. What do you understand by image interpretation keys?
5. Explain how land capability classification is carried out.
6. What do you mean by Coastal vulnerability mapping?
7. State the characteristics of OLI sensor and comment on its uses.
8. Briefly discuss the Indian referencing scheme of any two IRS sensors.

Group- B

[Answer **any two** questions] (2x10=20 marks)

9. Construct a Hypsometric Curve for Rakmo Nala watershed from the data given below (Table1). The watershed belongs to Kendujhar District of Orissa (SOI Map No. 73 G/5, Scale 1:50000) having an area of 37.03 Sq. Km.

Table 1: Table for calculation of Hypsometry of Rakmo Nala watershed

Contour value (m)	1000	900	800	700	600	500	400	300	200
Area of the watershed above the contour (km^2)	0	0.63	3.95	9.08	12.09	15.034	19.33	22.9	37.03

10. Briefly describe the role of Photo Interpretation Keys in visual image interpretation.
11. Explain the methods of landslide hazard zonation mapping.

12. Calculate the estimated population of the following urban centres based on Zipf's Rank Size Rule (Table 2) and plot them in a log-log graph paper provided to you (**Graph-1**).

Table 2: Ten most populous cities in India.

Cities	Population
Pune	3,124,458
Delhi	11,034,555
Bangalore	8,443,675
Kolkata	4,496,694
Ahmedabad	5,577,940
Mumbai	12,442,373
Surat	4,467,797
Jaipur	3,046,163
Hyderabad	6,993,262
Chennai	4,646,732