

B.Sc. 5th Semester (Honours) Examination, 2023-24

GEOGRAPHY

Course ID : 51922

Course Code : SH-GEO-502/C-12

Course Title : Remote Sensing (Practical)

SET-I

Time : 3 Hours

Full Marks : 40

*The figures in the right margin indicate marks.
Candidates are required to answer in their own
words as far as practicable.*

Answer **all** the questions.

Section-A

1. Why is georeferencing necessary in GIS? Register the given scanned topographical map in UTM and WGS 84 coordinate system with at least 4 GCPs distributed well over the map. Comment on the level of RMSE achieved by the Georeferencing.
2+7+1=10
2. What are TCC and FCC? Prepare an SFCC image from the given multispectral satellite image (IRS LISS III or Landsat OLI) for the region of interest (to be decided by the examiner). Prepare a diagram of spectral signature consisting spectral signatures of built-up area, vegetation, water and soil. Interpret the signatures that why they look so.
2+6+2

[Turn over]

3. Laboratory Note Book. 5

Section-B

4. Mention the advantages of using supervised classification. Classify the prepared SFCC image with at least 4LULCs applying supervised maximum likelihood algorithm. Make a proper layout on the classified LULC map. 2+7+1
5. Viva-voce. 5