# THIRD SEMESTER M.Sc. DEGREE EXAMINATION, DECEMBER 2015

(CUCSS)

Applied Geology

GEL 3E 01—REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM

(2010 Admissions)

Time : Three Hours

Maximum : 36 Weightage

I. Short answer type questions. Answer *all* questions :

1 Ground Control Points.

2 Mosaic.

3 Panchromatic image.

4 Push broom and whisk broom scanners.

5 Translation *vs* transformation.

6 Union *vs* Difference operation.

7 Pattern.

8 Polar orbital.

9 Radio waves.

10 SAR.

11 IR spectra.

12 Desktop GIS.

13 Map window.

14 Topology.

(14 × 1 = 14 weightage)

II. Short essay questions. Answer any *seven* questions :

15 Types of aerial photographs.

16 Relief displacement.

17 Stefan—Boltzmann and Wien's Displacement Laws.

18 Atmospheric windows.

19 Slant and ground range.

**Turn over**

20 CARTOSAT.

21 Remote sensing in identifying potential groundwater zones.

22 Creation of topology.

23 Rubber-sheeting.

24 Map generalization.

(7 × 2 = 14 weightage)

III. Long essay. Answer *two* questions :

25 Describe multi-spectral scanners. Explain the same with the help of examples of the LANDSAT series of satellites.

*Or*

26 Explain the elements of aerial photo interpretation with suitable examples.

27 Describe the IRS series of satellites and explain how their resolution compares with similar satellites launched by the USA.

*Or*

28 Describe raster and vector GIS formats and their use.

(2 × 4 = 8 weightage)