# 2017

## M.Sc.

## 3rd Semester Examination

### REMOTE SENSING AND GIS

**PAPER—RSG-301**

*Full Marks* : 40

*Time* : 2 Hours

*The figures in the right-hand margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

*Use Separate answer book for each Group.*

### Group–A

### *( Application of Geo-informatics )*

[Marks : 20]

Answer any *two* questions. 2×10

1. Narrate different techniques of surface investigation of ground water with special emphasis on remote sensing. 10

2. Write down the application of Remote sensing in surface and sub surface water quality monitoring. How snow and cloud can be distinguished in different part of electromagnetic spectrum. 7+3

3. Enumerate the processor of soil moisture estimation from remotely sensed data. How remote sensing could be helpful for damrite selection. 7+3

4. Plan for appropriate management techniques for following issues :

   (a) Urban heat island and air pollution ;

   (b) Zoning decision in suburban region near a large city ;

   (c) Solid waste disposal and abandoned toxic waste dumps ;

   (d) Land slide near the highways of himalayan region. 2½×4

## Group–B

## (Spatial Decision Support System)

[Marks : 20]

Answer any *two* questions. 2×10

1. Briefly explain the interrelationship among DSS, SDSS and GIS.

   What do you mean by structured, remistuctured and ill-structured decision problems ? 4+6

**2.** Differentiate between multiobjective and multiattribute decision marking. Give a brief account on elements and structure of MCDA. 4+6

**3.** Critically explain the maximum score and score range procedures of linear scale transformation. What do you mean by cost and benefit criterion ? 7+3

**4.** Which criterion weighting method is most popularly used for site suitability analysis and why ?

How can the AHP method be used within a GIS environment ? 3+7