M.Sc. 3rd Semester Examination, 2019

REMOTE SENSING AND GIS

(*Application of Geo-informatics and Spatial Decision support system*)

PAPER — RSG-301.1+ 301.2

Full Marks : 40

Time : 2 hours

The figures in the right hand margin indicate marks

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

Illustrate the answers wherever necessary

RSG-301.1

(*Application of Geo-informatics*)

[*Marks* : 20]

GROUP—A

Answer any **two** questions : 2×2

1. Name some Indian Satellites mission with focused application in Natural Resource Management.

2. Differentiate between hazard and natural event.

3. What are specific retaintion and specific yield of soil ?

4. Explain aquiclude, aquifuge and aquitard.

GROUP—B

Answer any **two** questions : 4×2

5. What do you mean by 'Prepardness' ? How it helps to reduce the losser in disaster ?

6. What is the role of digital terrain model in selection of damsite.

7. Write down the technology and application of GPR.

8. Explain application of Geoinformatics in Environment Management.

GROUP—C

Answer any **one** question :   8 × 1

9. Explain how Remote Sensing and GIS techniques are used in identification of sites for artificial recharge structures for ground water management.   8

10. Write down the application of remote sensing in surface and subsurface water quality monitoring ? Write down the role of Remote sensing in canal alignment ?   6 + 2

RSG-301.2

(*Spatial Decision support system*)

[*Marks* : 20]

GROUP—A

Answer any **two** questions :   2 × 2

1. What do you mean by DSS and SDSS ?

2. What are the three phases in decision making process ?

3. Why sensitivity analysis is important in pair-wise comparison method of criteria weighting ?

4. What do you mean by constraints in decision making ?

GROUP—B

Answer any **two** questions :   4 × 2

5. Write a short note on framework of SMDA with proper illustration.

(5)

6. How GIS is interrelated with SDSS ?

7. Explain rating method of criteria weighting.

8. Which techniques are being used for selecting decision criteria ?

GROUP—C

Answer any **one** question :   8 × 1

9. Discuss the methods of criteria for map standardization.

10. Critically explain the process of AHP with suitable example.

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