

2016

M.Sc.

3rd Semester Examination

REMOTE SENSING & GIS

PAPER—RSG-301

Full Marks : 40

Time : 2 Hours

The figures in the margin indicate full marks.

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

Illustrate the answers wherever necessary.

Group-A

(Application of Geoinformatics)

[Marks : 20]

Answer any *two* questions.

1. How cloud and snow are distinguished in different parts of the electromagnetic spectrum ? What are the advantages of

(Turn Over)

thermal and microwave remote sensing in soil moisture estimation. 4+6

2. How does land use pattern control runoff volume ? Explain with the help of an empirical model how satellite images, soil map and rain fall data can be used to estimate the annual runoff from a watershed. 3+7
3. (a) Explain the level-based classification of land use / land cover classification citing suitable examples using geoinformatics.
(b) Briefly discuss about the process for identification of double / multi-crop areas using geoinformatics. 6+4
4. Elaborate the hydro-morpho-geological interpretation techniques for targetting ground water potential zoner. What is the role of remote sensing in targetting ground water ? 6+4

Group-B**(Spatial Decision Support System)**

[Marks : 20]

Answer any *two* questions.

1. Define spatial decision support system. What are the salient characteristics of SDSS ? How GIS is inter-related with SDSS ? 3+3+4

 2. Briefly discuss the framework of spatial multi-criteria decision analysis (SMDA). What do you mean by uncertainty in decision making ? 7+3

 3. Which properties or characteristics of criteria are need to be considered while detining set of evaluation criteria ? Give a brief account on techniques of criteria standardization. 5+5

 4. Briefly discuss three phasess of dication making. Explain the procedure of criteria weighting through pairwise comparison method. 3+7
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