

C942

Total Pages : 3

Roll No.

ESC-508

Environmental Remote Sensing and GIS-II

M.Sc. Environmental Science (MSCES-20)

2nd Semester Examination, 2022 (June)

Time : 2 Hours]

Max. Marks : 40

Note : This paper is of Forty (40) marks divided into two (02) Sections A and B. Attempt the questions contained in these sections according to the detailed instructions given therein.

SECTION–A

(Long Answer Type Questions)

Note : Section 'A' contains Five (05) long answer type questions of Ten (10) marks each. Learners are required to answer any Two (02) questions only.

(2×10=20)

1. Describe in detail the key components of Geographical Information System (GIS) and Global Positioning System (GPS)?

2. What is geospatial data? Describe different data features of geospatial data? Explain how GIS database is more advantageous over the conventional data?
3. What do you mean by overlay analysis? Discuss various types of overlay analysis?
4. What do you understand by integration of Remote Sensing (RS), GIS and GPS? Explain the significance and application of RS, GIS and GPS integration.
5. Remote sensing and GIS are the most powerful tools for environmental management and decision support system. Elaborate to justify.

SECTION-B

(Short Answer Type Questions)

Note : Section 'B' contains Eight (08) short answer type questions of Five (05) marks each. Learners are required to answer any Four (04) questions only. (4×5=20)

1. Define the concept of GIS in terms of information infrastructure? What are the different data sources of GIS?
2. Describe the steps of image processing for landuse classification with the help of suitable flow chart.

3. Give brief accounts of the key satellites or sensors useful in the context of spatio-temporal aspects of Forestry and Ecological management.
 4. Distinguish between raster and vector data along with their advantages and disadvantages.
 5. Explain how Remote Sensing and GIS can be useful in the field of Geo-Science applications.
 6. What is Ocean Colour Remote Sensing (OCRS)? Explain briefly the application of OCRS in marine environment.
 7. Describe the potential applications of remote sensing in the field of hydro-meteorology.
 8. What are the different models of integrations of remote sensing, GIS and GPS?
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