



UTTARAKHAND OPEN UNIVERSITY, HALDWANI (NAINITAL)
उत्तराखंड मुक्त विश्वविद्यालय, हल्द्वानी(नैनीताल)

M.Sc Environmental Science (MSCEN-12)

ASSIGNMENT- FIRST YEAR

Last Date of Submission: 15 May जमा करने की अन्तिम तिथि: 15 मई

Cosourse Title: Environmental Remote sensing & GIS

Course code: ES 503

Year: 2012-13

Maximum Marks : 40

Section 'A'

भाग क

Section 'A' contains 08 short answer type questions of 5 marks each. Learners are required to answers 4 questions only. Answers of short answer-type questions must be restricted to 250 words approximately.

भाग क में आठ लघु उत्तरीय प्रश्न दिये गये हैं इनमें से केवल चार प्रश्नों के उत्तर देने हैं। प्रत्येक प्रश्न के लिए 5 अंक निर्धारित हैं तथा प्रत्येक प्रश्न का उत्तर 250 शब्दों से अधिक नहीं होना चाहिए।

Briefly discuss the following:

निम्न की संक्षेप में चर्चा कीजिए :

1. Different types of scattering and their impact on satellite remote sensing.
2. What are the major orbital paths of satellites? Describe them with figures and list their advantages.
3. Describe various elements of visual image interpretation. What is advantage of visual image interpretation over digital image interpretation?
4. Describe various steps in GIS database creation.
5. Describe various applications of remote sensing in land resource management.
6. What is resolution of a satellite? How it differs from the resolution of a satellite image?
7. Describe various features of LISS – III camera. How it is superior to the LISS-I camera?
8. What is topology? Describe its various types with examples.

Section 'B'

भाग ख

Section 'B' contains 04 long answer-type questions of 10 marks each. Learners are required to answers 02 questions only.

भाग ख में चार दीर्घ उत्तरीय प्रश्न दिये गये हैं इनमें से केवल दो प्रश्नों के उत्तर देने हैं। प्रत्येक प्रश्न के लिए 10 अंक निर्धारित हैं।

1. Describe various types of rectifications applied in a satellite image. Provide step by step description of geo-rectification of a satellite image.
2. What is GPS? Describe various segments of a GPS. List 10 applications of GPS.
3. What is an Atmospheric Window? Describe its importance in satellite remote sensing by providing example of standard reflectance signature curve of vegetation.
4. Compare unsupervised and supervised classification methods. What are the advantages/disadvantages of both the methods?