

**NAME OF THE ASSOCIATE PROFESSOR: Dr. PARUL RANA**

**Academic Session 2025-26**

**Class & Semester: B.A. 6th Semester**

**Subject: Paper 601: RS, GIS and Quantitative methods**

Lesson Plan (January 2026-April 2026)

**(January)**

1: Introduction to Aerial Photograph

1.1 Definition and History of Aerial Photograph

1.2 Bases of Aerial Photograph

1.3 Classification of Aerial Photograph

Identification of Aerial Photograph

1.5 Aerial camera and its types

Season and time of photography

1.7 Planning and execution of photographic flights

1.8 Completion of photographic task

1.9 Advantages of Aerial Photography

1.10 Application of Aerial Photography

**(February)**

Chapter 2: Elements of Aerial Photograph

2.1 Introduction

2.2 Image Interpretation

2.3 Bases principal of aerial photograph

2.4 Factor governing the quality of an image

2.5 Elements of image interpretation

Chapter 3: Introduction to Remote Sensing

3.1 General Introduction

3.2 Meaning of Remote Sensing

3.3 Process of Remote Sensing

3.4 Stages of Remote Sensing

3.5 Electromagnetic Spectrum

3.6 Satellites and its historical development

3.6.1 Types of Satellites

3.6.1.1 Natural Satellites

3.6.1.2 Artificial Satellites

3.6.1.2.1 Geostationary Satellites

Sun synchronous Satellites

Revision of Chapter 2

Chapter 4: Types of Imageries and their application

4.1 False colour Imageries

4.2 True colour Imageries

Revision of chapter 3

Chapter 4: Types of Imageries and their application

4.3 Application of imageries in agriculture

Application of imageries in environment

Chapter 4: Types of Imageries and their application

4.5 Application of Imageries in resource mapping

Revision of Chapter 4

**March**

Chapter 5: Introduction of GIS

5.1 Meaning and Concept of GIS

5.2 History of GIS

## 5.3 Definition of GIS

### Chapter 5: Introduction of GIS

## 5.4 Purposes of GIS

## 5.5 Elements of GIS

### 5.6 Data Model

### 5.7 Data structure

### 5.8 Error in GIS

### 5.9 Advantages of GIS

### 5.10 Hardware

#### 5.10.1 Components of Hardware

### 5.11 Software and GIS

### Chapter 6: Application of GIS in various fields of Geography

## 6.1 Application

### 6.1.1 Agriculture development and land evolution

### 6.1.2 Change detection of vegetation area

### 6.1.3 Analysis and monitoring of vegetation health

### 6.1.4 Analysis of deforestation

### 6.1.5 Waste land mapping

### 6.1.6 Soil resource mapping

### 6.1.7 Groundwater potential mapping

### 6.1.8 Geological and mineral exploration

### 6.1.9 Snow melt runoff forecasting

### 6.1.10 Forest fire monitoring and ocean productivity

## **April**

### Chapter 7: Measure of Central Tendency

## 7.1 Concept of Central Tendency

### 7.2 Definition of average (Mean)

7.2.1 Calculation of mean in individual series

7. 2.2 Calculation of mean in discrete series

7. 2.3 Calculation of mean in continuous series

7.2.4 Properties of mean

7.2 Merits and demerits of mean

7.3 Median 7.3.1

Introduction

7.3.2 Calculation of median in individual series

7.3.3 Calculation of median in discrete series

7.3.4 Calculation of median in continuous series

7.3.5 Merits and demerits of median

7.4 Mode

7.4.1 Introduction

Chapter 7: Measure of Central Tendency

7.4.2 Calculation of mode in Individual series

7.4.3 Calculation of mode in Discrete series

7.4.4 Calculation of mode in Continuous series

7.4.5 Merits and demerits of Mode

Revision of chapter 7

Chapter 8: Measure of Dispersion : Introduction

Range and Quartile Deviation

Mean Deviation

Standard Deviation

Standard Deviation

Coefficient of Variation

Revision of Statistics

Revision and Tests of entire syllabus

**Class and Section: B.A.III, 6<sup>th</sup> Semester**

**Paper 602: Practical**

**Subject Lesson Plan: 18 weeks (from Jan to April, 2026)**

(January)

Demarcation of Principal Point , Conjugate Principal Point and Flight Line on Aerial

Photograph

(February)

- 1) Determination of Scale of Aerial Photographs
- 2) Interpretation of Single Vertical Aerial Photographs

(March)

- 1) Use of Stereoscope and identification of features on Aerial Photographs 2)

Visual identification of features on IRS 1D LISS III Imagery (Mark Copy of FCC)

( April)

- 1) Field Survey by students and Preparation of field survey reports by students
- 2) Checking of Files and Reports 3) Preparation for viva- voce

**Academic Session 2025-26**

**Class & Semester: B.A. 4th Semester**

**Name of the Course: Geography of Economic Activities**

**Subject Code: 25GEOM404DS01**

Lesson Plan (January 2026- April 2026)

January

Unit 1- Economic geography:nature and scope; relationship of economic geography with other disciplines; economic activities and their classification; impact of economic activities on environment; natural resources: concept and classification.

February

Unit 2: World distribution of principal crops: wheat and rice; concept of location of agricultural activities-Von Thunen's Model;agro-industries:Unit 2: World distribution of principal crops: wheat and rice; concept of location of agricultural

activities-Von Thunen's Model;agro-industries:factors affecting their location; world distribution and production of sugar and cotton textile industry. affecting their location; world distribution and production of sugar and cotton textile industry.

### March

Unit 3: World distribution and production of mineral resources: iron and coal; classification of industries;factors affecting location of industries;industrial location theory of Weber; world distribution and production of iron & steel and petrochemical industry.

### April

Unit 4: Economic development and globalization; significance and challenges of global sea transport; recent trends in international trade; international trade profile of India.

### **Revision**

**Academic Session 2025-26**

**Class & Semester: B.A. 4th Semester**

**Name of the Course: Socio-economic Survey and Field Report (Practical) (Part- B)**

**Subject Code: 25GEOM404DS01**

Lesson Plan (January 2026- April 2026)

### January & February

Unit 1:

Land surveying: introduction, methods and objectives; chain and tape survey; plane table survey; field book, indexing, conventional signs and symbols

### March & April

Unit 2:

Socio-economic survey: meaning, aims and objectives; field work in geographical studies: role, value, data types and ethics of field work; field work and report writing through field visit on the basis of socio-economic survey of any area of the country.

Checking and evaluation of Reports