

## Lesson Plan

Teacher Name- Anup Singh

Class- M Sc. Geography 1<sup>st</sup> Sem. (REMOTE SENSING)

AUG.,2024	08-14	Definition; History of Remote Sensing: Stages of Remote Sensing
	15-21	Physics of Remote Sensing: Electromagnetic Radiation (EMR), Characteristics; Electromagnetic Spectrum (EMS); Interactions Between Matter and Electro-Magnetic Radiation
	22-28	Energy Interaction in The Atmosphere; Energy Interactions with The Earth's Surface and concept of signature. Radiation Laws. Atmospheric Windows
	29-31	Types of Remote Sensing with Respect to Wavelength Regions and their significance. Sensor and Platforms. Sensor Technology, Historical Development
SEPT., 2024	01-07	Types of Platforms and Sensors Airborne Remote Sensing; Space Borne Remote Sensing: Orbital Elements of Satellite; Sensor Types Characteristics: Active and Passive Remote Sensing.
	08-14	Imaging Systems; Non-Imaging Sensors; Across Track and Along Track Scanners. UNIT TEST
	15-21	concept of multispectral and Hyperspectral, Framing and Scanning Systems: Characteristics of Optical Sensors; Resolution. ASSIGNMENT
	22-30	Remote Sensing Satellites and Data Products: Overview of Different Satellite
OCT,2024	01-07	Sensors for Earth Observations-Coarse; Medium and High-Resolution Missions (Landsat Series; SPOT; Sentinel, Quickbird; ASTER; Sentinel; Aqua and Terra (MODIS)
	08-14	SAR and Future Missions. IRS Missions: IRS 1A; IRS 1B; IRS-P2; IRS-1C; IRS-P3; IRS-ID; Oceansat (IRS-P4); IRS P6/Resourcesat-1; Cartosat-1; Cartosat-2; Cartosat- 2A
	15-21	Chandrayan-1; RISAT-1; RISAT-2; Oceansat-2; Cartosat-2B; Resourcesat-2; Megha-Tropiques; SARAL; Resourcesat-2A; Mars Orbiter.
	22-26	Application of Remote Sensing in Natural Resources Management like: Water resources.
NOV.,2024	04-07	Application of Remote Sensing in Natural Resources Management like: Land use/ land Cover (LULC) Forest and Environmental issues TEST
	08-14	Application of Remote Sensing in Human Resources Management like: Agricultural issues and Impact Assessment on Indian Economics
	15-21	Urban and regional Planning present issue & Challenges
	22-30	REVISION

## Lesson Plan

Teacher Name- Anup Singh

Class- M Sc. Geography 3<sup>RD</sup> Sem. (REMOTE SENSING)

SR. NO.	WEEK	TOPICS TO BE COVERED	ASSIGNMENTS, PRESENTATIONS AND TESTS
1	1	Fundamentals: Remote Sensing, definition and scope	
2	2	EMR characteristics, Interaction with matter. Earth surface.	
3	3	remote sensing regions and bands, types of remote sensing	CLASS TEST
4	4	. Aerial Photographs: aerial photos, types and scale	
5	5	resolution, geometric properties of single aerial photos.	
6	6	stereoscopy, stereoscopic parallax, relief displacement.	CLASS TEST
7	7	Satellite Imagery: General orbital characteristics of remote sensing satellites.	
8	8	general characteristics of remote sensing sensors, characteristics of Indian remote sensing satellite and raw Remote Sensing data.	PRESENTATIONS /ASSIGNMENTS
9	9	Interpretation and Application: Elements of image interpretation.	
10	10	image processing techniques: Visual and Digital.	PRESENTATIONS /ASSIGNMENTS
11	11	Applications remote sensing in resource mapping and monitoring	
12	12	REVISION AND DOUBT CLEARANCE	FINAL TEST
13	13	REVISION AND DOUBT CLEARANCE	
14	14	REVISION AND DOUBT CLEARANCE	

## Lesson Plan

Teacher Name- Anup Singh

Class- B.A. Geography 3<sup>RD</sup> Sem. (Physical Geography)

SR. NO.	WEEK	TOPICS TO BE COVERED	ASSIGNMENTS, PRESENTATIONS AND TESTS
1	1	Weather and Climate; Origin, composition and structure of atmosphere.	
2	2	Insolation, Global heat budget, Horizontal and vertical distribution of temperature.	
3	3	inversion of temperature. Atmospheric pressure -- measurement and distribution.	CLASS TEST
4	4	pressure belts, planetary winds Monsoon, Jet Streams.	
5	5	EL NINO - La Nina Phenomenon and Local winds.	
6	6	Humidity- measurement and variables, evaporation, condensation.	CLASS TEST
7	7	precipitation forms and types and distribution, hydrological cycle.	
8	8	Air masses concept and classification; Fronts - type and characteristics	PRESENTATIONS /ASSIGNMENTS
9	9	Weather disturbances tropical and extra-tropical cyclones. Climate classification by Koppen.	
10	10	climatic change and global warming.	PRESENTATIONS /ASSIGNMENTS
11	11	Configuration of oceanic floors and surface relief of Pacific, Atlantic and Indian Oceans.	
12	12	temperature and salinity of oceans	FINAL TEST
13	13	Tides, waves and oceanic currents; circulation in Pacific, Atlantic and Indian Oceans	
14	14	Oceanic resources. Revision	

## Lesson Plan

Teacher Name- Anup Singh

Class- M Sc. Geography 1<sup>st</sup> Sem. (Geomorphology)

AUG.,2024	08-14	Introduction of geomorphology, Its historical development as a subject. Indian contribution.
	15-21	Nature and scope of geomorphology. recent trend and introduction of fundamental concept in geomorphology.
	22-28	Uniformitarianism, geological structure and landforms. Multicycle and polygenetic evolution of land forms, frequency concept of geomorphic process,
	29-31	Presentation and discussion of syllabus.
SEPT., 2024	01-07	Continental drift theory and its basic consideration. Plate tectonics -meaning and concept, margin and boundaries. Unit test
	08-14	Plate motion and cycle, tectonic activities along plate boundaries, distribution of plate.
	15-21	Hill slop- definition and form of slope, geomorphic process and slope formation.
	22-30	Slope evolution – down wearing, parallel retreat and slope replacement models. Unit test.
OCT,2024	01-07	Weathering: Causes; types of weathering, ASSIGNMENT
	08-14	Factor affecting weathering and importance of weathering
	15-21	Mass movement, causes, classifications and types of mass movements
	22-26	Geomorphic processes and resulting land forms – Glacial
NOV.,2024	04-07	, fluvial(iii) Aeolian
	08-14	Karst, environmental management of the following: Accelerated erosion and sedimentation
	15-21	1) Accelerated erosion and sedimentation
	22-31	(ii) Construction of large dams
		(iii) Urban geomorphology
		Revision and discussion

