

Teaching Lesson Plan

SEC-2

INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEM AND GPS

Lecture hours: 45

SN	Subject and Objectives	Lectures Hrs	Methodology	Evaluation Mode
Unit-I	Geographic Information System (GIS): Meaning, Definition, and its Components	9Hrs	PPT, Illustrations	Q & A, Assignments
Unit-II	GIS Data Structures: Types (Spatial and Non-spatial), Raster and Vector Data Structure; GIS Data Analysis, Overlays and network analysis.	9Hrs	PPT, Illustrations	Q & A, Assignments
Unit-III	Recent Trends in GIS; Application of GIS, GIS in land resource management (LIS)- Jharbhoomi, Biharbhumi, Bhuvan (ISRO-NRSC) platform and its services	9Hrs	PPT, Illustrations	Q & A, Assignments
Unit-IV	Global Positioning System (GPS) and Indian Regional Navigation Satellite System (IRNSS/NavIC)– Definition and Components; Principles and Application of GPS	9Hrs	PPT, Illustrations	Q & A, Assignments
Unit-V	Collecting waypoint using GPS handsets or mobile apps (GPS Waypoint/others), geotagging, Transferring waypoint to computer, editing non-spatial information, creating basic maps using waypoints	9Hrs	PPT, Illustrations	Q & A, Assignments

Reference Books:

1. Burrough, P.A., and McDonnell, R.A. (2000) Principles of Geographical Information System- Spatial Information System and Geo-statistics, Oxford University Press, Oxford.
2. Chauniyal, D.D. (2010) Sudur Samvedan evam Bhogolik Suchana Pranali, Sharda Pustak Bhawan, Allahabad.
3. Heywoods, I., Cornelius, S and Carver, S. (2006) An Introduction to Geographical Information system. Prentice Hall, New Jersey.

Prepared by: Department