

SARDAR PATEL UNIVERSITY,
Vallabh Vidyanagar.
Programme & Subject : B.A. Geography (CBCS)
SEMESTER-II
Effect from June, 2018

Skill Enhancement Papers

S – 112 Remote sensing and Geographical Information System(GIS)

Paper Code: UA02SGEO22 S-112 Skill Enhancement		Total Credit:3
Title of Paper : Remote sensing and Geographical Information System (GIS)		
Unit	Description in Detail	Weightage (%)
1.	1.1 Historical Development of Remote Sensing 1.2 Relevance of Remote Sensing in Geography, Concepts & Basic Requirements of Satellite Remote Sensing 1.3 Platforms & Sensors, Orbital Characteristics, Whiskbroom Scanners, Push broom Scanners, & Data Products.	25%
2.	2.1 Image Processing: Visual & Digital 2.2 Significance of Secondary / in-situ data, Ground Truth Verification; Preprocessing / Rectification and Restoration. 2.3 Data Enhancement, Spectral Pattern Recognition; Microwave Sensing. SLAR Imageries; Elements of Passive. 2.4 Microwave Sensing; Remote Sensing Applications & Mapping in India: Case Studies (Landaus Planning, Forest Management, Wasteland Management etc.)	25%
3.	3.1 Concept of GIS; Maps & Spatial Information; Dynamics and Selection of Spatial Information 3.2 Concept of Spatial & Non-Spatial Data; Computer Environment for GIS (Hardware & Software Requirement) 3.3 Spatial Data: Raster-Vector Structure- Conversion & Comparison; Elements of GIS: Data Capture, Verification & Processing; Storage & Maintenance 3.4 Data Manipulation, Analysis, Overlay Analysis.	25%
4.	4.1 Integration of GIS; Remote Sensing & GPS Data Application. 4.2 Use of Satellite Imagery & other Categories of Maps for GIS (Landaus Planning, Forest Management, Wasteland Management etc)	25%
Readings	1. Campell, J. B. (2003): Introduction to Remote Sensing. 4th edition. Taylor and Francis, London. 2. Chaunial, D. D. (2004): Remote Sensing and Geographical Information System(in Hindi), ShardaPustakBhawan, Allahabad 3. Cracknell, A. and Ladson, H. (1990): Remote Sensing Year Book. Taylor and Francis, London. 4. Curran, P.I. (1985): Principles of Remote Sensing. Longman, London. 5. Deekshatulu, B.L. and Rajan, Y.S. (ed.) (1984): Remote Sensing. Indian Academy of Science, Bangalore. 6. F. and Sabins, Jr. (1986): Remote Sensing: Principles and Interpretation. W.H. Freeman, New York.	