

**Semester V**  
**Practical Geography- I**  
**(Techniques of Spatial Analysis) DSE- 2 C**  
**(No. of Credits: 04)**

**Workload: Six Periods per week per batch consisting of 12 Students; however the last batch needs to have more than six students.**

**(Examination for the course will be conducted at the end of the semester)**

**Objective:**

1. To introduce the basic concepts and techniques of Geographical Analysis.
2. To introduce the students with SOI Toposheets and acquire the Knowledge of Toposheet interpretation.
3. To introduce the students with Weather Maps and acquire the Knowledge of its interpretation.
4. To introduce the students with Aerial Photographs and Satellite Images and acquire knowledge to interpret it .
5. To acquaint students with the spatial and structural characteristics of Practical Geography.
6. To explain the elementary and essential principles on field of practical work.

**Note:**

1. Students must check the practicals regularly and journal should be certified by practical in-charge and Head of the Department before examination.
2. Use of Map stencils, Log tables, Calculator, Computer, Statistical Tables are allowed at the time of examination.
3. Students without a certified journal should not be allowed for the practical examination.
4. Each of the practical batches needs a separate question paper.
5. Internal and External examiner should set jointly the question paper for each batch.

Sr. No.	Topic	Sub Topic & learning Points	No. of Lectures
1.	Introduction of S.O.I. Toposheet & Relief Representation	a. Introduction of Survey of India Toposheets: Marginal Information, Conventional signs and symbols and Colours in S.O.I. Toposheets. b. Types of toposheets / Indexing of toposheets c. Methods of Relief Representation i) Qualitative: Hachures, Hill shading, Layer Tint. ii) Quantitative: Contours, Form lines, Bench Marks, Spot Heights, Triangulation Mark, Relative Height (r)	15
2.	Interpretation of S.O.I.	a. Reading of SOI toposheets from plain, plateau and Mountainous region. (Minimum one	15

	Toposheets and Data generation	Toposheet per region) b. One day field Excursion for orientation of toposheets, observation and Identification of Geographical Features and Preparation of a Brief Report	
3.	Introduction & Interpretation Weather Maps	a. Introduction to Weather Maps b. Symbols in Daily Weather Report used by India Meteorological Department (IMD) c. Isobaric Pattern d. Reading of Weather Map from i) Summer ii) Monsoon iii) Winter Season (Minimum one weather map from each season)	15
4.	Introduction & Application of GIS & Remote Sensing Techniques	a. Definition and Components of GIS b. GIS Data Types (spatial and non-spatial), Raster and Vector data c. Introduction of Aerial Photographs & Satellite Images d. Use of Computer open source Software for GIS & RS techniques in Geography	15

**Reference Books:**

1. Ahirrao, D. Y. and Karanjkehe, E.K., 2002. Pratyakshik Bhugol, Sudarshan Publication, Nashik.
2. Buoygoot, J. 1964., An Introduction to Map work and Practical Geography, University Tutorial, London.
3. Burrough, P. A., and McDonnell, R. A., 2000. Principles of Geographical Information System, Oxford University Press.
4. Curran, P. 1989., Principles of Remote Sensing, Logman, London.
5. Dickinson, G. C., 1979, Maps and Air Photographs, Arnold Publisher, New Delhi.
6. Dr. P. G. Saptrashi and Dr. S. R. Jog., 1991, Statistical Methods (Marathi)
7. Ebdon, D., 1977. Statistics in Geography: A Practical Approach, Basil Blackwell, Oxford.
8. Kumbhar, A., 2000. Pratyakshik Bhugol, Sumeru Publications, Mumbai.
9. Lillesand, T. M. and Kiefer, R. W., 2002. Remote Sensing and Image Interpretation, John Wiley and Sons, New Delhi.
10. Lutgens, F. K. and Tarbuck, E.J., 2007. The Atmosphere. Prentice hall, Englewood Cliffs, New Jersey, USA.

11. Monkhouse, F. J. and Wilkinson, H. R. 1971. Maps and Diagrams. Methuen and Co. Ltd. London, UK.
12. Ramamurthy, K., 2006. Map Interpretation, Rex Printers, Madras.
13. Siddhartha, K., 2006. Geography Through Maps, Kisalaya Publication, Pvt. Ltd, New Delhi.
14. Singh L. R. and Singh R., 1973. Map Work and Practical Geography, Central Book Depot, Allahabad.
15. Singh R. L. and Dutt, P.K., 1968. Elements of Practical Geography, Students Friends, Allahabad.
16. Singh R. L., 2005. Elements of Practical Geography. Kalyani Publishers, New Delhi.
17. Singh, G., 2005. Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
18. Strahler, A. A. and Strahler, A. N., 2002. Physical Geography. Science and Systems of the Human Environment, John Wiley & Sons, INC.
19. Strahler, A. H. and Strahler, A. N., 1992. Modern Physical Geography. John. Wiley & Sons, INC.
20. डॉ.काळे व्ही.बी. २०२१ 'प्रात्यक्षिक भूगोल' प्रशांत पब्लिकेशन, जळगाव.