

2.2 Graphical Construction of the following Projections with Properties and Use:

- i) Zenithal Polar Gnomonic Projection
- ii) Zenithal Polar Equal Area Projection
- iii) Simple Conical Projection with one standard Parallel
- iv) Cylindrical Equal Area Projection
- v) Mercator's Projection and Reference to Universal Transverse Mercator (UTM) Projection

Module – III : Identification, Mapping of Slope, Relief Features and Profiles

Periods 50

Marks 15

3.1 Slope and Gradient

3.1.1 Types of Slope: Gentle, Steep, Even, Uneven, Convex, Concave, Terraced.

3.1.2 Expression of Slopes: a) Gradient b) Degree c) Per Cent d) Mills

3.1.2 Representation of Relief by Contours: Hill, Mountain, Ridge, Cliff, Saddle, Plateau, Knoll, Spur, Col or Pass, Volcanic Col or Crater, Gorge, 'V' Shaped Valley, Waterfall, 'U' Shaped Valley, Cirque, Hanging Valley, Ria Coast, Fiord Coast, Sea cliff.

3.2 Profiles

3.5.1 Superimposed Profile

3.5.2 Composite Profile

3.5.3 Projected Profile

3.5.4 Longitudinal Profile

Module – IV : Topographical Maps

Periods 50

Marks 15

4.1 Indexing of S.O.I. Topographical Map

4.2 Signs, Symbols and Colors used in SOI Toposheet

4.3 Interpretation of S.O.I.'s Topographical Maps

a) Marginal Information

b) Physical environment: Relief, Drainage and Vegetation

c) Cultural environment: Settlements, Transportation and Communication, Irrigation.

d) Land Use

Module V: Weather Instruments and IMD Maps

Periods 70

Marks 20

5.1 Study of weather Instruments with reference to Principle, Mechanism, and Function

- a) Thermograph
- b) Barograph
- c) Dry and Wet Bulb Thermometer
- d) Cup Anemometer
- e) Rain Gauge

5.2 Isobaric Patterns: Cyclone, Anticyclone, Col, Ridge, Secondary Depression

5.3 Signs and Symbols used in Indian Daily Weather Maps

5.4 Interpretation of Indian Daily Weather Maps

Marginal Information, Pressure, Winds, Clouds, Rainfall, Other Conditions, Sea Condition, Temperature departure from normal

Module VI : Representation Techniques of Statistical Data

Periods 30

Marks 10

- a) Divided Rectangle
- b) Proportional Circle
- c) Proportional Square
- d) Choropleth Map
- e) Dot Map
- f) Isopleths

Module VII: Journal and Viva Voce

Marks 10

Note :

1. Use of stencils, log tables, computer and calculator is allowed.
2. Journal should be completed and duly certified by practical in-charge and Head of the Department.

Reference:

1. Bygoot, J: An Introduction to Mapwork and Practical Geography, University Tutorial, London 1964.
2. London 1964.

3. Khan MD. Zulfequar Ahmad : Text Book of Practical Geography, Concept Publishing Company, New Delhi, 1998
 4. Mishra, R.P. and Ramesh A. : Fundamentals of Cartography, Concept Publishing Company, New Delhi, 2000
 5. Monkhouse F.J. and Wilkison, H.R.: Maps and Diagrams, Mathuen. London, 1971.
 6. Negi. , Dr. Balbir Singh : Practical Geography, Kedar Nath Ram Nath, Meerut, Delhi.
 7. Raisz, E.: Principals of Cartography, McGraw Hill Book Com., Inc, New York, 1962.
 8. Robinson, A.H. and Sale, S.D.: Elements of Cartography, John Witey and Sons, Inc, New York, 1969.
 9. Saha, Pijushkanti and Basu Partha : Advanced Practical Geography – A Laboratory Manual Books and Allied (P) Ltd, Kolkata. 2010.
 10. Sarkar, Ashis : Practical Geography: A systematic Approach, Orient Longman limited, Calcutta, 1997.
 11. Singh, Gopal : Map work and Practical Geography Vikas Publishing House Pvt. Ltd. New Delhi, 1996.
 12. Singh, R and Kanaujia, L.R.S.: Map Work and Practical Geography, Central Book Depot, Allahabad.
 13. Singh, R. L. and Rana P.B. : Elements of Practical Geography, Kalyani Publishers, New Delhi – Ludhiana, 1998.
 14. Aher A. B., Chodhari A. P. & Bharambe S. N. Techniques of Spatial Analysis Prashant Publication Jalgaon 2015
 15. Maurice Yeats, An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York, 1974.
 16. P. Saha and P. Basu (2006): Advanced Practical Geography, Books and Allied Publication, Kolkata, India.
 17. Khullar, Essentials of Practical Geography, New Academic Publishing Co, India.
 18. Singh L R (2011): Fundamentals of Practical Geography
 19. Robinson Rep. (2010): Elements of Cartography 6/e
 20. Khan Za (1998): Text Book of Practical Geography
२१. कुंभार अर्जुन, प्रात्यक्षिक भूगोल,