

Revised Syllabus for B. A. – III and B. A. B. Ed.

(Introduced from June 2020 Onwards)

Revised Syllabus for

B. A. Part III and B. A. B. Ed. Geography

DSE-E234 or Paper No. XIII (Practical Paper -I)

Sem-V

Title of Paper: Fundamentals of Map Making and Map Interpretation

Module – I: Introduction to Map and Scales: **Periods 50**

Marks 15

1.1 Map

1.1.1 Map: Definition and Elements

1.1.2 Classification of Maps: Based on Scale and Purpose

1.2 Scale

1.2.1 Meaning and Definition,

1.2.2 Methods of Representation of scale - Verbal, Numerical and Graphical.

1.2.3 Scale Conversion

1.2.4 Construction of Graphical Scale –

i) Simple (Plane Scale)

ii) Time and Distance Scale

iii) Diagonal Scale

Module II: Map Projection **Periods 50**

Marks 15

2.1 Definition, Classification of Projections:

a) Based on the methods of Construction: Perspective and Non-perspective

b) Based on Developable Surface used: Conical, Cylindrical, Zenithal,

Conventional.

c) Based on Position of Tangent Surfaces: Polar, Equatorial (normal), Oblique.

d) Based on Position of view point or light: Gnomonic, Stereographic,

Orthographic

e) Based on Preserved qualities: i) Equal area projection (Homolographic)

ii) Orthographic Projection

iii) Azumuthal Projection (True Bearing

Projection)

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.

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 6. Negi. , Dr. Balbir Singh : Practical Geography, Kedar Nath Ram Nath, Meerut, Delhi.
 7. Raisz, E.: Principles of Cartography, McGraw Hill Book Com., Inc, New York, 1962.
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 13. Singh, R. L. and Rana P.B. : Elements of Practical Geography, Kalyani Publishers, New Delhi – Ludhiana, 1998.
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 15. Maurice Yeats, An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York, 1974.
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 19. Robinson Rep. (2010): Elements of Cartography 6/e
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