

# Syllabus for P. G. Entrance Test to M.A./M.Sc. 2016

## Geography

### Section I

#### Physical Geography : Lithosphere

##### I

The nature and scope of Physical Geography. Solar system and the Earth; Origin of the earth - important theories - Nebular, Tidal, Planetesimal, Supernova and Otto Schmidt.

##### II

The constitution of the earth's interior, Age of the earth, Geological time scale.

Origin of the Continents and Oceans: Wegner's theory. Plate tectonics and Earth surface configuration, major and minor plates of the world and types of plate margins

##### III

Major second order Land forms: Mountains, Plateaus, Plains and Lakes their classification and distribution.

Earth's Materials: Rocks- their origin, classification and characteristics, Formation of regolith and soil.

#### Suggested Readings

Chorley, R.J.: **Spatial Analysis in Geomorphology**. Methuen, London. 1972.

Garner, H.F.; **The Origin of Landscape- A Synthesis of Geomorphology**. O. U.P. London, 1974.  
Garrison, T.: **Oceanography- An introduction to Marine Science**. Books/ Cole Pacific Grove, USA, 2001.  
Mitchell, C.W.: **Terrain Evaluation**. Longman, London, 1973.

Robinson, P.J. & S. Henderson: **Contemporary Climatology**. Henlow, 1999. Stoddart, D.R., ed.: **Process and Form in Geomorphology**. Routledge, New York, 1996.

Sparks, B.W.: **Geomorphology**. Longman, London, 1960.

Sharma, H.S., ed.: **Perspectives in Geomorphology**, Vol. 1-5. Concept. New Delhi. Singh, S.: **Geomorphology**. Prayag Publications, Allahabad, 1998

Singh, S.: **Physical Geography**, Prayag Publications, Allahabad, 2006 Thornbury, W.D.:

**Principles of Geomorphology**. John Wiley, New York, 1960..

Wooldridge, S.A. & R.S. Morgan: **An Outline of Geomorphology**. Longman, London, 1959

### Section II

#### Elements of Geography

##### I

Nature and scope of Geography. A brief historical overview of Geography as a discipline. Dualism in geography- Physical v/s Human.

Branches of Physical Geography- their general characteristics and inter-relationships.

Branches of Human Geography- their general characteristics and inter-relationships.

## II

Geography as the study of Environment. Man –Environment relationship, ecology and ecosystem. Environmental hazards and assessment. Branches of Human Geography – their general characteristics.

## III

Elements of Map Science. Concepts of Scale and Maps, Toposheets and Application of Remote Sensing Techniques.

Application of Geography in various fields such as agriculture. Mining, Resource evolution. Recent Trends in Geography.

### Suggested Readings

Adhikari, Sudeepta, **Fundamentals of Geographical Thought**. Chaitanya Publishing House Allahabad, 1999. Ali, S.M., **The Geography of Puranas**. Peoples Publishing House New Delhi, 1966.

Amedeo, Douglas, **An Introduction to Scientific Reasoning in Geography**. John Wiley, USA, Dickinson, R.E. **Makers of Modern Geography**. Routledge & Kegan Paul, London, 1969.

Dikshit, R.D., ed, **The Art and Science of Geography- Integrated Readings**. Prentice-Hall of India, New Delhi, 1994.

Dikshit, R.D., **Geographical Thought: A Contextual History of Ideas**. Prentice-Hall of India, New Delhi, 1997. Freeman, T.W., **Hundred Years of Geography**. Duckworth, London, 1961.

Haggett, Peter, **Geography: A Modern Synthesis**. New York: Harper and Row, 1972.

Hartshorne, R., **Nature of Geography**. Association of American Geographers, 1939. Hartshorne,

R. **Perspective on Nature of Geography**. Rand McNally & Co., 1959. Hussain, M., **Evolution of Geographical Thought**. Rawat Pub. Jaipur, 1984.

James, P.E. **All Possible World: A History of Geographical Ideas**. The Odyssey Press New York, 1972. Minshull, R.

**The Changing Nature of Geography**. Hutchinson University Library London, 1970. Monkhouse, F.J. : **Maps and Diagrammes**. Methuen, London.

Taylor, G. (ed.), **Geography in the 20<sup>th</sup> Century**. Methuen London, 1951.

## Section III

### I

The nature and scope of cartography. Types of Maps and Scientific method of letter writing. Scale: Statement scale, Representative Fraction (R.F.) and Graphical scale.

### II

Construction of Graphic / Linear Scale: Simple, Comparative, Diagonal and Time scale.

### III

Enlargement and reduction of Maps: Graphical – Square & Similar Triangle Method; Mechanical methods.

Identification of different rocks: Igneous, Sedimentary and Metamorphic Granite, Basalt, Pegmatite, Conglomerate, Sandstones, Limestone, Marble, Gneiss Schist, Slate

## Suggested Readings:

Robinson, A.H. , et. al.: **Elements of Cartography**. 6<sup>th</sup> ed. John Wiley, New York, 1995. Misra, R.P. & A. Ramesh : **Fundamentals of Cartography**. Concept, New Delhi. Monkhouse, F.J. : **Maps and Diagrammes**. Methuen, London.  
Singh, R.L.: **Elements of Practical Geography**. Kalyani, New Delhi.

## Section IV

### I

Geomorphic agents and processes: Fluvial, Arid and Karst region. Endogenetic process: orogenetic and epeirogenetic; Folds, Fault, Dome and their resultant landforms.

### II

Earth dynamics: Earthquakes and Volcanic activities, causes, their resultant landforms and world distribution.

Exogenetic processes of earth- Weathering processes: Physical, Chemical and Biological. Mass wasting and their resultant landforms.

### III

Geomorphic hazards: Earthquake, Volcanic eruption, Landslide and Flood - their effects and assessment. Application of geomorphology in settlements, mining, land use, transport -road and railway lines.

## Suggested Readings:

Chorley, R.J.: **Spatial Analysis in Geomorphology**. Methuen, London. 1972.

Garner, H.F.; **The Origin of Landscape- A Synthesis of Geomorphology**. O. U.P. London, 1974. Garrison, T.: **Oceanography- An introduction to Marine Science**. Books/ Cole Pacific Grove, USA, 2001. Mitchell, C.W.: **Terrain Evaluation**. Longman, London, 1973.

Robinson, P.J. & S. Henderson: **Contemporary Climatology**. Henlow, 1999. Stoddart, D.R., ed.: **Process and Form in Geomorphology**. Routledge, New York, 1996.

Sparks, B.W.: **Geomorphology**. Longman, London, 1960.

Sharma, H.S., ed.: **Perspectives in Geomorphology**, Vol. 1-5. Concept. New Delhi. Singh, S.: **Geomorphology**. Prayag Publications, Allahabad, 1998

Singh, S.: **Physical Geography**, Prayag Publications, Allahabad, 2006 Thornbury, W.D.:

**Principles of Geomorphology**. John Wiley, New York, 1960.

Wooldridge, S.A. & R.S. Morgan: **An Outline of Geomorphology**. Longman, London, 1959

## Section V

### Human Geography

### I

Nature and scope of human Geography. Division of Mankind into racial groups- their characteristics and distribution. Human Adaptation to the environment (i) Cold region- Eskimo (ii) Hot region- Bushman, Badawins (iii) Humid region-Pigmy

## II

Human adaptation to the environment (i) Plateau-Gonds, Massi (ii) Mountain-Gujjars nomads, (iii)Regions of recurrent floods, droughts and other cultural hazards, Adaptation in modern society.

Distribution and density of population: Factors of population distribution – physical, social and economic. Distribution of world Population. Growth of Population.

## III

Migration- internal and international, Settlements-rural and urban, patterns and world distribution.

Population conflict resolution in developed and developing world. Geo-political conflicts. Frontiers and Boundaries, Indian ocean and World politics.

### **Suggested Readings:**

- Ambrose, Peter: **Analytical Human Geography**. Longman, 1970.  
Brock, J.C. & J.W. Webb,: **Geography of Mankind**. McGraw Hills, New York. Chandna, R.C.: **Population Geography**. Kalyani, New Delhi.  
Chisholm, M.: **Human Geography: Evolution or Revolution**. 1975  
Daniel, Peter & Michael Hopkinson,: **The Geography of Settlement**. Oliver & Boyd, Edingurgh. DeBlij, H.J.: **Human Geography- Culture Society and Space**. John Wiley, New York, 1996. Haggett, Peter, et al. : **Locational Models**. Arnold Heinemann, 1979.  
Llyod, P.E. & P. Dicken : **Location in Space**. Harper & Row, London.  
Singh, L.R. **Fundamentals of Human Geography**. Sharda Pustak Bhawan, Allahabad, 2005. Smith, D.M. : **Human Geography – A Welfare Approach**. Arnold Heinemann, London, 1984.

## **Section VI**

### I

Diagrammatic Representation of geographical data-types of diagram's, bar and column charts. Simple Line graph and Compound graph.

### II

Methods of showing relief- (Hachure, Shading, and Contours). Representation of different landforms by contours. Contours interpolation. Drawing of profiles cross and long profiles and their relevance in landforms mapping and analysis.

### III

Surveying- Basic principles of surveying; Types of surveying, surveying by chain and tape: one and two base lines (Tie line).

### Suggested Readings:

Robinson, A.H. , et. al.: **Elements of Cartography**. 6<sup>th</sup> ed. John Wiley, New York, 1995. Misra, R.P. & A. Ramesh : **Fundamentals of Cartography**. Concept, New Delhi. Monkhouse, F.J. : **Maps and Diagrammes**. Methuen, London.  
Singh, R.L.: **Elements of Practical Geography**. Kalyani, New Delhi.

## Section VII

### Physical Geography : Climatology

#### I

Definition and significance of climatology. Elements of weather and climate, composition and structure of the atmosphere.

Atmospheric pressure and winds -vertical and horizontal distribution of pressure, Winds and their causes of circulation, Types of winds-planetary, Periodic and local winds. El-Nino-Southern Oscillation (ENSO).

#### II

Atmosphere moisture -Humidity, Evaporation and condensation. Hydrological cycle, Types of precipitation: World patterns of rainfall, regional and seasonal distribution of rainfall.

#### III

Air masses and Fronts- Origin, classification and characteristic's. Atmospheric disturbances: Cyclone- Tropical cyclone, Temperate cyclone-theories of their origin and associated weather conditions.

Climatic classification. Basis of Koppen's classification and their climatic types. Role of climate in human life, Atmospheric pollution and global warming- general causes, consequences and measures of control.

### Suggested Readings:

Berry, B.J.L. and Chorley, P.J. Atmosphere weather and climate, rout edge, London, 1993. Critchfield, J.S. General climatology prentice Hall, India, 1993  
Peterson, Introduction to meteorology McGraw Hill Book London, 1969 Lal, D.S. Climatology chaitanya publication, Allahabad, 1986  
Singh Savindra: Climatology, Prayaga Pustak Bhawan, Allahabad 2006.

## Section VIII

### Economic Geography

#### I

Definition and scope of economic geography. Sectors of economic activity-Primary, Secondary and Tertiary.

Agriculture: Primary crops – wheat, rice and maize.

#### II

Agriculture : commercial crops – cotton, sugarcane, tea, coffee, rubber.  
Favourable geographical conditions, world distribution and production. Fisheries – factors and important fishing grounds.

### III

Fuel and Power resources of the world. world distribution and production of coal, petroleum and hydroelectric power.

World potential and development of atomic energy and non-conventional sources of energy.

#### Suggested Readings:

Berry, B.J.L., E.C. Conkling & D.M. Ray: **Geography of Economic System**. Englewood Cliff. Chandna, R.C.: **Population Geography**. Kalyani, New Delhi.  
Haggett, Peter, et al. : **Locational Models**. Arnold Heinemann, 1979.  
Hartshorn, T.N. & J.W. Alexander: **Economic Geography**. Prentice Hall India, New Delhi, 1988. Lloyd, P.E. & P. Dicken : **Location in Space**. Harper & Row, London.  
Mc Carty, H.H. & J.B. Lindberg: **A Preface to Economic Geography**.  
Smith, D.M. ; **Human Geography – A Welfare Approach**. Arnold Heinemann, London, 1984. Smith, D.M: **Industrial Location- An Economic Geographical Analysis**. John Wiley, New York, Wheeler, J.O. et.al. : **Economic Geography**. John Wiley, New York, 1995.

## Section IX

### I

Representation of Temperature pressure and Rainfall data, Line and Bar graph, Isotherm, Isobars and Isohyets.

### II

Representation of statistical data - Circle diagram, Sector diagram, Age and Sex pyramid.

### III

Classification of Indian Meteorological Observatories and method of collection of weather data. Construction and significance of Climograph and Hythergraph.

#### Suggested Readings:

Robinson, A.H. , et. al.: **Elements of Cartography**. 6<sup>th</sup> ed. John Wiley, New York, 1995. Misra, R.P. & A. Ramesh : **Fundamentals of Cartography**. Concept, New Delhi. Monkhouse, F.J. : **Maps and Diagrammes**. Methuen, London.  
Singh, R.L.: **Elements of Practical Geography**. Kalyani, New Delhi.

## Section X

### Physical Geography : Oceanography

I

Significance of Oceanography, surface configuration of the ocean floor, Hypsographic curve -continental shelf, continental slope, abyssal plain, trenches and deeps.

Relief of Atlantic, Pacific, and Indian Oceans with illustration.

II

Distribution of Temperature and Salinity of oceans and seas and their importance to human life with special reference to activities of coastal areas Circulation of oceanic waters, waves and currents, currents of Atlantic, Pacific and Indian oceans.

III

Tides –Causes, Types and Theories.

Marine deposits- Coral reefs-types and their formation, theories of coral reefs formation, coastal environment, ocean as store house of resources for the future.

**Suggested Readings:**

Berry, B.J.L. and Chorley, P.J. Atmosphere weather and climate, rout edge, London, 1993. Critchfield, J.S. General climatology prentice Hall, India, 1993  
Peterson, Introduction to meteorology McGraw Hill Book London, 1969 Lal, D.S. Climatology chaitanya publication, Allahabad, 1986  
Singh Savindra: Climatology, Prayaga Pustak Bhawan, Allahabad 2006.

**Section XI**  
**Economic Geography**

I

Mining economy: Factors governing the exploitation of minerals. World reserves and production of Iron ore, Manganese, Bauxite and Copper.

II

Manufacturing industries- factors affecting location, growth and distribution of Iron and steel industry in USA, Russia, Great Britain and Germany. Factors affecting location, Growth and distribution of Cotton textile industry in USA, Great Britain, China, Japan. Woollen textile industry - location and world distribution.

III

Nature and trends in the International trade, World trade of wheat, cotton, tea, coffee, petroleum, gold, silver, gems and jewellery, etc.

Transport: Relative significance of different means of transport, factors affecting land, water and air transport. World oceanic routes; important inland waterways and important canals. Impact of globalization on world economy.

#### **Suggested Readings:**

Berry, B.J.L., E.C. Conkling & D.M. Ray: **Geography of Economic System**. Englewood Cliff. Chandna, R.C.: **Population Geography**. Kalyani, New Delhi.  
Haggett, Peter, et al. : **Locational Models**. Arnold Heinemann, 1979.  
Hartshorn, T.N. & J.W. Alexander: **Economic Geography**. Prentice Hall India, New Delhi, 1988. Llyod, P.E. & P. Dicken : **Location in Space**. Harper & Row, London.  
Mc Carty, H.H. & J.B. Lindberg: **A Preface to Economic Geography**.  
Smith, D.M. ;**Human Geography – A Welfare Approach**. Arnold Heinemann, London, 1984. Smith, D.M.: **Industrial Location- An Economic Geographical Analysis**. John Wiley, New York, Wheeler, J.O. et.al. : **Economic Geography**. John Wiley, New York, 1995.

## **Section XII**

I

Representation and analysis of Relief: Profile, Serial, Longitudinal, Superimposed composite, projected and their use in landform analysis,

II

Use of Meteorological instruments: Maximum and minimum Thermometer, Dry and Wet Bulb Thermometer, Fortin's Barometer, Aneroid Barometer, Rain Gauge, Wind Vane, Anemometer.

Weather maps: Preparation of weather maps in India; Symbols used in weather maps; Interpretation of Indian daily Weather maps published by the Indian Meteorological Department.

III

Survey- Prismatic compass survey, Radiation and Inter-section methods.

#### **Suggested Readings:**

Robinson, A.H. , et. al.: **Elements of Cartography**. 6<sup>th</sup> ed. John Wiley, New York, 1995. Misra, R.P. & A. Ramesh : **Fundamentals of Cartography**. Concept, New Delhi. Monkhouse, F.J. : **Maps and Diagrammes**. Methuen, London.  
Singh, R.L.: **Elements of Practical Geography**. Kalyani, New Delhi.

## **Section XIII**

Geography of India: Physical Aspects

I



Locational characteristics; land of diversities and unity in diversity; Physical features- relief and physiographic character. Drainage pattern.

Climate : origin of monsoon, regional and seasonal variation.

## II

Soils types: their characteristic and distribution.

Mineral resources: Iron-ore, Manganese, Bauxite and Copper.

## III

Power resources: Coal, Petroleum, Hydroelectric power. Development of power resources; Sources of non-conventional energy.

Water resources: availability, utilization, conservation methods- rain harvesting and watershed management.

### **Suggested Readings:**

Das, P.K.: The **Monsoon**. National Book Trust of India, New Delhi.

Government of India: The **Gazetteer of India**, Vol. 1: The Land and People. Publication Division, New Delhi. Husain, Majid, **Geography of India**, McGraw-Hill Com. New Delhi, 2008

Khullar, D.r. India: A Comprehensive study kalyani pub., Luchiana, New Delhi, 2008.

Sharma, T.C. & O. Countinho: **Economic and Commercial Geography of India**, Vikash Publication, New Delhi. Singh, Jasbir : **Agricultural Atlas of India**. Vishal Publication, Kurukshetra.

Singh, R.L., ed.: **India- A Regional Geography**. N. G. S. India, Varanasi, 1971.

Spate, O.H.K. & A.T.A. Learmonth: **India and Pakistan- Land, People and Economy**. Methuen, London. Tiwari, R.C.

**Geography of India**. Allahabad: Prayag Pustak Bhawan, 2003

## **Section XIV**

### **Resources & Environment**

#### I

Meaning, nature and components of resources and environment. Resources and environment interface. Classification of resources - renewable and non-renewable, biotic and abiotic resources.

#### II

Water resources their economic and environmental significance and conservation methods.

Minerals and energy resources their economic and environmental significance and conservation.

#### III

Types and distribution of forests - their economic and environmental significance and conservation.

Major soil types and their distribution, problems of soil erosion and soil conservation.

Fisheries- their economic and environmental significance and conservation.

#### **Suggested Readings:**

Agrawal, Anil and Sunita Narain. **Dying Wisdom: The Fourth Citizen Report**. Centre for Science and Environment, New Delhi, 1998.

Detwyler, J.R.: **Man,s Impact on Environment**. Pelican, 1970.

Goudie, Andrew. **The Human Impact on the Natural Environment**. Blackwell Oxford, 1994. Mukerji, A. and V.K. Agnihotri. **Environment and Development**. Concept , New Delhi, 1993. Saxena, H. M **Environmental Geography**. Rawat Publications. Jaipur, 1999.

Saxena, H. M. **Environmental Management**. Rawat Publications, Jaipur, 2000.

Sharma, B.L. & Puar P: **Global Environmental Challenges**. Rohini Books, Publishers & Distributors, Jaipur, 2004. Singh, K.N. and D.N. Singh. **Population Growth, Environment and Development: Issues,**

**Impacts and Responses**. Environment & Development Study Centre Varanasi, 1991. Singh, S. **Environmental Geography**. Prayag Pustak Sadan, Allahabad, 2000.

Smith, R.L.: **Man and his Environment: An Ecosystem Approach**. Harper & Row, London, 1992.

U.N.E.P.: **Global Environmental Outlook** . U.N. Pub. New York.

### Section XV

#### I

General principles and classification of Projections: Construction, Properties, limitations and uses of following projections: Zenithal: Gnomonic, Stereographic and Orthographic projections (Polar cases).

#### II

Conical projections: One standard parallel, Two standard parallels, Bonne's and Polyconic. Simple cylindrical projection, Equal area cylindrical projection.

#### III

Mapping Techniques: Mapping of population data, Social, Economic and Physical Data employing Dot, Isopleth, and Choropleth method.

#### **Suggested Readings:**

Robinson, A.H. , et. al.: **Elements of Cartography**. 6<sup>th</sup> ed. John Wiley, New York, 1995. Monkhouse, F.J. : **Maps and Diagrammes**. Methuen, London.

Misra, R.P. & A. Ramesh : **Fundamentals of Cartography**. Concept, New Delhi. Singh, R.L.: **Elements of Practical Geography**. Kalyani, New Delhi.

### Section XVI

#### Geography of India: People and Economy

#### I

Cultural landscape: Population distribution and density, and its growth, urbanization.

Changing nature of Indian economy; Agriculture: Major crops- wheat, rice, cotton, tea; impact of green revolution, Regionalization of Indian agriculture.

## II

Industrial development-location and distribution of iron and steel, cement, cotton textile and sugar industry.

## III

International trade; Socio-economic development-impact of development on environment and globalization.

Geography of Madhya Pradesh: Physical features, Climate, Forests, Power resources, Agriculture and Industries.

### Suggested Readings:

- Chadna, R.C.: **Population Geography**. Kalyani, New Delhi. Das, P.K.: **The Monsoon**. National Book Trust of India, New Delhi.
- Government of India: **The Gazetteer of India**, Vol. 1: The Land and People. Publication Division, New Delhi. Husain, Majid, **Geography of India**, McGraw-Hill Com. New Delhi, 2008
- Deshpande, C.D.: **India – A Regional Interpretation**. Northern Book Centre, New Delhi. Khullar, D.r. **India: A Comprehensive study** kalyani pub., Luchiana, New Delhi, 2008.
- Mukherjee, A.B. & A. Aijazuddin, eds.: **India- Culture, Society & Economy**. Inter India, New Delhi.
- Sharma, T.C. & O. Countinho: **Economic and Commercial Geography of India**, Vikash Publication, New Delhi. Singh, Jagdish : **India**. Gyanodaya, Gorakhpur.
- Singh, Jasbir : **Agricultural Atlas of India**. Vishal Publication, Kurukshetra. Singh, M.B.: **Industrial Development in India**. Lotus, Varanasi, 1985.
- Singh, R.L., ed.: **India- A Regional Geography**. N. G. S. India, Varanasi, 1971. Sinha, B.N.: **Industrial Geography of India**. The World Press, Calcutta.
- Spate, O.H.K. & A.T.A. Learmonth: **India and Pakistan- Land, People and Economy**. Methuen, London. Tiwari, R.C. **Geography of India**. Allahabad: Prayag Pustak Bhawan, 2003
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## Section XVII

### Resources and Environment

#### I

Meaning, definition and components of environment Ecology and Ecosystem.

Classification of environment: Natural and Human.

Human resources: Distribution and Density of Population.

#### II

Population pressure and resources utilization.

Population explosion, Exploitation of natural resources, Food security.

Environmental hazards: pollution and its related problems, Emerging environmental problems. Global warming.

### III

Impact of Human activities: deforestation, mining, agriculture and industrialization on environment. Environmental conservation, preservation, and sustainable resource use.

#### **Suggested Readings:**

- Agrawal, Anil and Sunita Narain. **Dying Wisdom: The Fourth Citizen Report**. Centre for Science and Environment, New Delhi, 1998.
- Detwyler, J.R.: **Man,s Impact on Environment**. Pelican, 1970.
- Goudie, Andrew. **The Human Impact on the Natural Environment**. Blackwell Oxford, 1994. Mukerji, A. and V.K. Agnihotri. **Environment and Development**. Concept , New Delhi, 1993. Saxena, .H. M **Environmental Geography**. Rawat Publications. Jaipur, 1999.
- Saxena, H. M. **Environmental Management**. Rawat Publications, Jaipur, 2000.
- Sharma, B.L. & Puar P: **Global Environmental Challenges**. Rohini Books, Publishers & Distributors, Jaipur, 2004. Singh, K.N. and D.N. Singh. **Population Growth, Environment and Development: Issues, Impacts and Responses**. Environment & Development Study Centre Varanasi, 1991. Singh, S. **Environmental Geography**. Pryag Pustak Sadan, Allahabad, 2000.
- Smith, R.L.: **Man and his Environment: An Ecosystem Approach**. Harper & Row, London, 1992.
- U.N.E.P.: **Global Environmental Outlook** . U.N. Pub. New York.

## **Section XVIII**

### I

Statistical Methods: Measures of central tendency- Mean, Median, and Mode; Standard Deviation.

### II

Topographic maps: classification and numbering; Interpretation of physical and cultural topographic sheets. Aerial photograph and remote sensing & GIS.

### III

Surveying : Plane Table survey by intersection, and Resection methods.

One day field excursion visit of any specific geographical unit & their report/village survey report.

#### **Suggested Readings:**

- Robinson, A.H. , et. al.: **Elements of Cartography**. 6<sup>th</sup> ed. John Wiley, New York, 1995. Misra, R.P. & A. Ramesh : **Fundamentals of Cartography**. Concept, New Delhi.
- Singh, R.L.: **Elements of Practical Geography**. Kalyani, New Delhi.

