

**M.A./M.Sc GEOGRAPHY**  
**( SEMESTER - I)**

The M.A. I Semester Examination in Geography shall consists of 500 marks. There shall be four theory papers and one practical, each of 100 marks as follows:

**THEORY**

Paper	Title	Marks			
		Theory	Internal Test	Seminar	Total
I	Geomorphology	80	10	10	100
II	Climatology	80	10	10	100
III	Geographical Thought	80	10	10	100
IV	Advanced Geography of India	80	10	10	100

**PRACTICAL**

Paper	Title	Marks
V	Advanced Cartography	100

The theory paper shall be of three hour duration . Each theory paper in M. A. I Semester has been divided into four units.

In the theory examination the following shall be the allotment of marks:

- (i) Each theorypaper 80%
- (ii) Seminar eachpaper 10%
- (iii) Internalassessment 10%
- (a) In the practical examination the following shall be the allotment of time and marks:
  - (i) Practicalrecord 20%
  - (ii) Lab work (up to three hour) 50%
  - (iii) Field work (up to threehour) 25%
  - (iv) Viva on (i) above 5%
- (b) The external and internal examiners shall jointly submit themarks.
- (c) Candidates shall be examined in survey individually They will howeverbe allowed to take the help of a laborer each at their ownexpenses.
- (d) All the candidates will compulsorily present at the time of the practical examination their practical records duly signed by the teachersconcerned.

# M.A./M.Sc GEOGRAPHY

## (SEMESTER - I)

### Paper - I

## Geomorphology

**Max. Marks: 80**

### OBJECTIVES:-

It being is course at the interlace of Geography with earth, the student has to be sensitized to background knowledge of geology and environmental sciences.

The objectives of the course is to familiarize the student with the need for understanding of geomorphology with reference 10 certain fundamental concepts, and the process component of geomorphology is segmented into the internal and external processes of landscape evolution.

### COURSE CONTENTS :-

- Unit- I:** Nature and scope of geomorphology, fundamental concepts. Interior of the earth. Earth movements: Endogenic movement: Plate tectonics, volcanic with special reference to Himalays.
- Unit-II:** Exogenic process: concept of gradation agents and processes of gradation weathering mass wasting, Normal cycle of erosion, Interruption of the cycle of erosion, Drainage patterns.
- Unit-III:** Glacial, Aeolian and Marine (Coastal) River, Karst: processes and resulting landforms, slope, Analysis by penck wood & king.
- Unit-IV:** Geological structure and landforms: development of drainage and landscape on folded and domal structure, Applied geomorphology.

### SUGGESTED READINGS:-

1. Thornbry, W.D. principles of Geomorphology, Wiley Eastern Limited New Delhi.
2. Chorley, R.J. Spatial Analysis in Geomorphology, Methuen London 1972
3. Dury, G.H. The face of the Earth penguin Harmondsworth 1959.
4. Strahler A.N.: Physical Geography, Wiley New York.
- 5<sup>th</sup> कौशिक एस.डी.भू. आकृतिविज्ञानरस्तोगीपब्लिकेशनमेरठ ।
- 6<sup>th</sup> नेगी, बी.एस. भू. आकृतिविज्ञान के सिन्दात, केदारनाथरामनाथप्रकाशनदिल्ली ।
- 7<sup>th</sup> सिंह, सविन्द्र : भू. आकृतिविज्ञान, वसुन्धराप्रकाशन, गोरखपुर ।
- 8<sup>th</sup> गायत्री प्रसाद : भू. आकृतिविज्ञान, शारदापब्लिकेशनइलाहाबाद ।
9. दयाल, परमेश्वर : भू. आकृतिविज्ञान, शारदापब्लिकेशनइलाहाबाद ।

# M.A./M.Sc GEOGRAPHY

## (SEMESTER - I)

### Paper - II

## Climatology

Max. Marks : 80

### OBJECTIVES:-

Understanding of generation of weather and climatic phenomena and dynamics of climate.

### COURSE CONTENTS:-

- Unit-I: Nature and scope of climatology and its relationship with meteorology. Composition of atmosphere; Insulation, heat balance of the earth, stability and instability, green house effect, vertical and horizontal distribution of temperature; Jetstream.
- Unit-II: General circulation in the atmosphere, acid rain, concept of air masses and atmospheric disturbances, ocean- atmospheric interaction, El Nino and La Nino; Monsoon winds & cyclones.
- Unit-III : The application of general principles of elementary, physical and synoptic meteorology to the study and classification of climate, climatic classification of Koppen and Thornthwaite.
- Unit-IV : Major climates of the world: Tropical, Temperate, Desert and Mountain climate; Climatic change and Global warming, Environment impact and Society's response, Applied climatology.

### SUGGESTED READINGS:-

1. Barry, R.G. and Chorley P.J.: Atmosphere, Weather and Climate, Roulledge. London and New York, 1998.
2. Critchfield, H.J. General Climatology, Prentice Hall, India, New Delhi, 1993.
3. Das, P.K. : Monsoons, National Book Trust, New Delhi. 1987.
4. Indian Met. Dept. , CHmatological Table of observatories in India Govt, of India. 1968.
5. Lai, D.S.: Climatology. Chaitanaya Publication. Allahabad, 1968.
6. Trewartha, G..T.: An Introduction to weather.
7. सिंह सविन्द्र : जलवायुविज्ञान , वसुंधराप्रकाशनगोरखपुर।
8. गौतमअल्का : जलवायु एवंसमुंद्रविज्ञान , रस्तोगीपब्लिकेशन , मेरठ।
9. लालडी. एस. : जलवायु एवंसमुंद्रविज्ञान , शारदापब्लिकेशन , इलाहाबाद।
10. तिवारी ए. पी. : जलवायुविज्ञान , राजस्थानग्रंथअकादमी , जयपुर।

# M.A./M.Sc GEOGRAPHY

## (SEMESTER - I)

### Paper - III

#### Geographical Thought

**Max. Marks: 80**

#### **OBJECTIVES:-**

- To introduce the students the philosophical and methodological foundations of the subject and its place in the world of knowledge.
- To familiarize them with the major landmarks in development of geographic thought at different periods of time.

#### **COURSE CONTENTS:-**

- Unit-I: Definition, scope and function of geography, geography as a science of aerial differentiation. Environmentalism, Determinism, Possibilism and Neo-determinism. Laws and theories in geography
- Unit-II: The growth of geographical knowledge from earliest time up to 15<sup>th</sup> century, contribution of Greek and Roman thinkers, **Arab** geographers :- Al- baruni. Al-masudi, Ibn-e-batuta and Al- idarsi .Geographical information in ancient Indian literature.The Dark Age in geography.The great age of maritime discovery and exploration.
- Unit-III.: Contribution of Various Schools of thought in modern geography.  
1. **German** school -Humbolt, Ritter, Ratzel. 2. **French** school - Vidal -de- la- blache.3. **British** school - Mackinder.4. **American** - Davis and Huntington. Models in geography, quantitative revolution, positivism.
- Unit-IV: Behaviouralism, Humanistic geography-relevance and the movement, Radical geography. Changing paradigm, status of Indian geography. Dualism in geography. :-Physical and Human, Systematic VS regional , Inductive VS Deductive.

#### **SUGGESTED READINGS:-**

1. Abler, Ronald; Adams, John Gold, Peter: Spatial Organization, The Geographer's view of the world; Prentice Hall, N.J.1971.
2. Ali S.M.: The Geography of Puranas, Peoples Publishing House, Delhi. 1968. Amedeo, Douglas :An Introduction to Scientific Reasoning in Geography. JOHN Wiley, U.S.A.1971.
3. कौशिक एस. डी. : भौगोलिक विचारधाराओं का इतिहास एवं विधितंत्र , रस्तोगी पब्लिकेशन , मेरठ ।
4. सिंह जगदीश : भौगोलिक चिंतन का मूल आधार , वसुंधरा पब्लिकेशन गोरखपुर ।
5. श्रीवास्तव बी. के. : भौगोलिक चिंतन का आधार, वसुंधरा पब्लिकेशन गोरखपुर ।
6. जैन एम.एस. : भौगोलिक चिंतन का विकास एवं विधितंत्र , साहित्य भवन, आगरा ।
7. हुसैन माजिद : भौगोलिक चिंतन , रावत पब्लिकेशन दिल्ली ।

## M.A./M.Sc GEOGRAPHY

(SEMESTER - I)

### Paper - IV

#### Advanced Geography of India

Max. Marks: 80

##### OBJECTIVES:-

- To understand India in terms of various regional divisions, their important characteristics, Intra- regional and inter- regional linkages: to analyses the natural and human resource endowments, their conservation and management:
- To sensitize the students with development issues and policies and programmes designed for regional development.

##### COURSE CONTENTS:-

**Unit-I:** Physical & Biological elements in the geography of India, Geological structure, relief, climate water resources. Vegetation and Soils

**Unit-II:** Agriculture : major characteristics and problems, Important crops : wheat, rice, cotton, sugarcane, oil seeds, tea and coffee: Agricultural regions.

**Unit-III :** Population : distribution density and growth, problems and policies. Sources of power coal, petroleum, natural gas, hydroelectricity .Mineral resources with specific reference to Iron-ore.Manganese. Bauxite and Copper

**Unit-IV :** Industrial development with special reference to Iron and steel. Cement.Cotton Textile and Sugar.Industrial regions Industrial Policy.Trade Transport & Communication.

##### SUGGESTED READINGS:-

1. Singh, R.L. (ed): India, A Regional Geography, National Geographical Society. Varanasi
2. Spate, O.H.K.& Learmonth: India and Pakistan, Methuen London 1967.
3. बसलसुरेश चंद , भारतका वृहतभूगोल, मीनाक्षी पब्लिकेशन मेरठ ।
4. रावबी. पी. , भारत एवं पड़ोसी देश, वसुंधरा प्रकाशन गोरखपुर ।
5. मामोरिया चतुर्भुज , भारतका वृहतभूगोल, साहित्य भवन आगरा ।
6. चौहान विरेन्द्र सिंह , भारतका भूगोल , रस्तोगी पब्लिकेशन मेरठ ।
7. तिवारी विजय , भारतका वृहतभूगोल भाग 1 और 2 , हिमालय पब्लिकेशन इलाहाबाद ।
8. नेगी बी. एस. , भारतका भूगोल, केदारनाथ रामनाथ प्रकाशन मेरठ ।

## **M.A./M.Sc GEOGRAPHY**

**(SEMESTER - I)**

**Paper - V**

**Practical**

### **Advanced Cartography**

**Max. Marks : 80**

**OBJECTIVES :-**

To apprise the student with latest trends in the development of cartography as a tool in mapping thematic and quantitative data to facilitate spatial analysis and synthesis.

**COURSE CONTENTS:-**

Thematic maps- Chorochromatic and Choroplethmap, Isolines, Dot map, Routed map. Flow map,

Morphometric analysis: Profiles, Slope analysis, Altimetric and Hypsometric curves, Drainage analysis, Block diagram

Map projection: Properties and principles of construction of world projection

Interpretation of maps: Topographical sheets

**SUGGESTED READINGS:-**

2. Singh L.R.- Elements of practical geography, central Book Depot, Allahabad.

3<sup>rd</sup> Monkhouse, F.J.& H.R. Willinson :Maps and Diagrams Methuen, London.

4<sup>th</sup> शर्माजे. पी. , प्रायोगिकभूगोल, रस्तोगीप्रकाशनमेरठ ।

5<sup>th</sup> मामोरियाचतुर्भुज , प्रायोगिकभूगोल , साहित्य भवनआगरा ।

6<sup>th</sup> यादवहीरालाल , प्रायोगिकभूगोल , वसुंधराप्रकाशनगोरखपुर ।

7<sup>th</sup> चौहानपी. एस. , प्रायोगिकभूगोल , वसुंधराप्रकाशनगोरखपुर ।

**M.A./M.Sc GEOGRAPHY**  
**( SEMESTER - II)**

The M.A. II Semester Examination in Geography shall consists of 500 marks. There shall be four theory papers and one practical, each of 100 marks as follows:

**THEORY**

Paper	Title	Marks			
		Theor y	Internal Test	Seminar	Total
I	Geography Of Chhattisgarh	80	10	10	100
II	Oceanography	80	10	10	100
III	Agriculture Geography	80	10	10	100
IV	Urban Geography	80	10	10	100

**PRACTICAL**

Paper	Title	Marks
V	Advanced Cartography and Surveying	100

The theory paper shall be of three hour duration . Each theory paper in M. A. II Semester has been divided into four units.

In the theory examination the following shall be the allotment of marks:

- (i) Each theorypaper 80%
- (ii) Seminar eachpaper 10%
- (iii) Internalassessment 10%
- (a) In the practical examination the following shall be the allotment of time and marks:
  - (i) Practicalrecord 20%
  - (ii) Lab work (up to three hour) 50%
  - (iii) Field work (up to threehour) 25%
  - (iv) Viva on (i) above 5%
- (b) The external and internal examiners shall jointly submit themarks.
- (c) Candidates shall be examined in survey individually They will howeverbe allowed to take the help of a laborer each at their ownexpenses.
- (d) All the candidates will compulsorily present at the time of the practical examination their practical records duly signed by the teachersconcerned.

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - II)**

**PAPER I**  
**GEOGRAPHY OF CHHATTISGARH**

- UNIT-1:** Physical setting- location, extent, geology, physical, features, climate, drainage, irrigation, major irrigation projects, soil and vegetation.
- UNIT-2:** Major crops and agriculture region, mineral and power resources renewable resources and power projects. Major industries - Iron and Steel, Cement, Aluminum, Agro and Forest based industries.
- UNIT-3:** Population: Distribution, Density Growth of Population, Social, Cultural characteristics of population, Tribes of Chhattisgarh, Urbanization.
- UNIT-4:** Transport and Trade, Tourist places of Chhattisgarh, National parks, wild life Sanctuaries, and Biosphere reserves.



**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - II)**  
**PAPER II**  
**Oceanography**

**Max. Marks :80**

**OBJECTIVES:-**

The objective of the course is to introduce students to the many facts of Oceans such as evolution of the oceans, Physical and chemical properties of sea water. atmospheric and oceanographic circulation, The fascinating world of marine life and the characteristic of marine environment and the impact of man on the marine environment.

**COURSE CONTENTS:-**

- Unit-1: Nature and scope of oceanography, Detailed study of distribution of land and water, major features of ocean basins: continental shelf, continental slope oceanic plain and deeps , composition of seawater.
- Unit-II: Inter link between atmospheric circulation and circulation pattern in the oceans, oceanic currents; Temperature, Salinity, Density, waves and tides.
- Unit- III: Marine sediments: Marine-biological environments, Bio- geo- chemical cycle in the ocean, bio-zones, types of organisms, food and mineral resources of the sea.
- Unit-IV : Major marine environments: coastal, estuary, delta barrier Island, rocky coasts Pelagic environment impact of humans on the marine environment. Exclusive Economic Zone: with special reference to Indian ocean. Applied oceanography.

**SUGGESTED READINGS:-**

1. Sharma, R.C. "The Oceans" Rajesh M .Delhi,1985.
2. Ummerkutty, A.N.P Science of the Ocean and Human life N.B. T, NewDelhi 1985.
3. गौतमअलका , जलवायु एवंसमुद्रविज्ञान , रस्तोगीपब्लिकेशनमेरठ ।
4. नेगीबी.एस. , जलवायु एवंसमुद्रविज्ञान, केदारनाथरामनाथपब्लिकेशनमेरठ ।
5. उपाध्याय डी. पी., जलवायु एवंसमुद्रविज्ञान, वसुंधराप्रकाशनगोरखपुर ।
6. लालडी. एस., जलवायु एवंसमुद्रविज्ञान, शारदापुस्तकभवन, इलाहाबाद ।

**M.A./M.Sc GEOGRAPHY**

**(SEMESTER - II)**  
**PAPER III**  
**Agriculture Geography**

**Max. Marks :80**

**OBJECTIVES:-**

- To familiarize the students with the concept, origin, and development of agriculture; to examine the role of agricultural determinants towards changing cropping patterns. Intensity, productivity, diversification and specialization. The course further aims to familiarize the students with the application of various theories, models and classification schemes of cropping patterns and productivity.
- Its objectives are also to discuss environmental, technological and social issues in agricultural sector with special reference to India.

**COURSE CONTENTS:-**

- Unit-1: Definition, nature, scope and significance of agricultural geography, approaches to the study of agriculture in geography commodity, deterministic, systematic, regional, behavioral and ecosystem Origin and dispersal of agriculture.
- Unit-II: Determinants of agricultural land use – Physical, economic, social, and technological, Land holding and land tenure systems, Land reforms, land use policy and planning. Cropping pattern, crop concentration, intensity of cropping, degree of commercialization, diversification and specialization efficiency and productivity, crop combination regions and agricultural development.
- Unit- III: Theories of agricultural location :- Von Thunen's theory of agricultural location and its recent modifications; Whittlesey's classification of agricultural regions; land use and land capability.
- Unit-IV : Agriculture in India : Land use pattern, regional pattern of productivity : Green Revolution, Food deficit and food surplus regions; Specific Problems in Indian agriculture and their management; Agricultural policy in India.

**SUGGESTED READINGS:-**

1. Bayliss Smith, T.P. : The Ecology of Agricultural Systems. Cambridge University Press. London, 1987.
2. Berry, B.J.L. et. al. : The changing World Food Prospects – The Nineties and Beyond. World Watch Institute, Washington D.C., 1990.
3. कुमारप्रमिला, कृषिभूगोल, हिन्दीग्रन्थअकादमीभोपाल ।
4. शर्माबी. एम., कृषिभूगोल, साहित्य भवनआगरा ।
5. नेगीबी. एस., कृषिभूगोल, रस्तोगीपब्लिकेशनमेरठ ।

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - II)**  
**PAPER IV**  
**Urban Geography**

**Max. Marks : 80**

**OBJECTIVES:-**

To understand the growth and evolution of urban settlements, analyses the patterns, morphology and function of settlements. City -country relationship, problems and planning .

**COURSE CONTENTS :-**

- UNIT- I: Definition and scope of urban geography. Centrifugal and centripetal forces in urban Geography , urban morphology and landuse pattern :- Burgess concentric zone theory , Hoyt sector model ,Ullman and Harris multiple Nuclei model.
- UNIT- II: Evolution and growth of urban settlement .the geographical setting of urban centers :- site, situation and location , rank size rule. Functional classification of towns-Harris andNelson,
- UNIT-III: Central place theory:-Christaller theory . Growth centre theory.Umland. Rural-urban fringe. Economic bases of Town. Basic -Non Basic concept.
- UNIT - IV: Urban Planning : Types and elements ,Urban Problem, Blight and renewal Urbanization in World and in India, Urban planning with reference to Naya Raipur.

**SUGGESTED READINGS :-**

1. Berry Brain J.L. : Geographic Perspectives on UrbanSystem.
2. Bresse, C. & D.F. Whiteman :An Approach to urban Planning.
3. Dickinson, R.E. : City, Religion andRegionalism.
4. Galleon and Fisher : The Urbanpattern.
5. Griffith, J.P. : A study of Urban construction inIndia.
6. Mayer and Kohn: Readings in UrbanGeogrphy
7. Ramchandran, R. : Urban systems and Urbanisation in India, OxfordUniversity PressDelhi.
8. सिंह ओ.पी. , नगरीय भूगोलताराप्रकाशन ।
9. सिंह उजागर : नगरीय भूगोल ।
10. करण एम. पी. : नगरीय भूगोल ।

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - II)**  
**Practical**  
**Advanced Cartography and Surveying**

**Max. Marks: 100**

**OBJECTIVES :-**

To enhance the skill of the students in the field of survey for revenue purposes and understanding the principle of map making and cartographical techniques.

**COURSE CONTENTS:-**

1. Graphs and Diagrams: Triangular graph, Ergograph, Snail diagram climatograph ; Pie- diagram and divided rectangles, proportional circles, spheres and cubes.
2. Interpretation of Maps :- Geological maps and Thematic maps.
3. Principles and Methods of topographical survey involving the use of Theodolite and Dumpy level.

**SUGGESTED READING:-**

1. Singh L.R. - Elements of practical geography, central Book Depot, Allahabad.
2. Monkhouse, F.J. & H.R. Willinson : Maps and Diagrams Methuen, London.
4. Kanetkar - Surveying and Levelling.
5. शर्मा जे. पी. : प्रायोगिक भूगोल, रस्तोगी प्रकाशन मेरठ ।
6. मामोरिया चतुर्भुज : प्रायोगिक भूगोल , साहित्य भवन आगरा ।
7. यादव हीरालाल : प्रायोगिक भूगोल , वसुंधरा प्रकाशन गोरखपुर ।
8. चौहान पी. एस. : प्रायोगिक भूगोल , वसुंधरा प्रकाशन गोरखपुर ।
9. अग्रवाल पी. सी. : मानचित्र एवं आरेख ।

**M.A./M.Sc GEOGRAPHY**  
**( SEMESTER - III)**

The M.A. III Semster Examination in Geography shall consist of 500 marks. There shall be four theory papers and one practical, each of 100 marks as follows:

**THEORY**

Paper	Title	Marks			
		Theory	Internal Test	Seminar	Total
I	Economic Geography	80	10	10	100
II	Research Methodology	80	10	10	100
III	Regional Development and Planning	80	10	10	100
IV	Population Geography	80	10	10	100

**PRACTICAL**

Paper	Title	Marks
V	Quantitative Techniques, Remote Sensing and GIS	100

The theory paper shall be of three hour duration. Each theory paper in M.A. III Semester has been divided into four units.

In the theory examination the following shall be the allotment of marks:

- (i) Each theory paper 80%
- (ii) Seminar each paper 10%
- (iii) Internla assessment 10%

(a) In the practical examination the following shall be the allotment of time and marks:

- (i) Practical record 20%
  - (ii) Lab work (up to three hour) 70%
- [Sec. A-50 marks and Sec. B-20 marks]
- (iii) Viva on (i) and (ii) 10%

(b) The External and internal examiners shall jointly submit the marks.

(c) All the candidates will compulsorily present at the time of the practical examination. Their practical records duly signed by the teachers concerned.

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - III)**  
**PAPER I**  
**Economic Geography**

**Max. Marks : 80**

**OBJECTIVES :-**

The objective of the course is to motivate the students:-

- To understand the economic geography
- To recognize and analyze the distribution and pattern of mineral, agriculture, industry and human resources.

**COURSE CONTENTS:-**

- UNIT-I : Nature, scope and systematic development of Economic geography. Fundamental concepts in economic geography. Approaches and methods to study of Economic Geography.
- UNIT-II: Mineral: - Iron - ore, Bauxite, Manganese .Energy resource: - Coal, Hydro-electricity, Petroleum and Non conventional resource
- UNIT - III: Weber "s Theory of industrial location. Case studies of selected industries: Iron and Steel; Chemical, Engineering Textile; Industrial Regions, Transport and trade. Trade blocks: EEC, LAFTA and ASIAN
- UNIT - IV: Distribution factors of Economic Activities: -Primary and Secondary Economic Activities, World economies and economic regions, Market orientated economy. Globalization and with special reference to India.

**SUGGESTED READINGS:-**

- 1 Barry, J.I. Geography of Market Centers and Retail Distribution, Prentice Hall, New York 1967.
2. Critchfield, S.D.: Economic Geography of Asia, Allied Book Agency, Calcutta. 1984.
- 3 Chorley, R.J. and Haggiest, P. (ed) : Network Analysis in Geography, Arnold, 1969.
4. Dreze, J and S. A.: India: Economic Development and social opportunity: Oxford university Press, New Delhi, 1996.
5. Eakarsley, R. (ed) : Markets, the state and the environment, Macmillan, London 1995.
6. सिंह जगदीशकाशीनाथ : आर्थिकभूगोल के मूलतत्व , तारापब्लिकेशनइलाहाबाद।

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - III)**  
**PAPER II**

**Research Methodology**

**UNIT-I:** Research Methodology : An over view Procedure of Scientific Research, Defining research problem, formulating Hypothesis, Research Design.

**UNIT-II:** Methods of data collection : Observation, Questionire, Schedule and Interview, Sampling : sampling Methods, Si, of samples.

**UNIT-III:** Processing and analysis of Data : Processing, Editing, Coding, Classification and Tabulation. Analysis, Measurement of Central Tendency, Dispersion, Correlation.

**UNIT-IV:** Preparation of Research Reports; Steps layout Types of Report

**SUGGESTED READING:**

1. Selitiz, C.M. Jahoda, M. Deutsch and others.: Research Methods in Social Relations, lilt, New York, 1961
2. Goode, W and P.K. Hatt : Methods in Social Research, Moaw Hill, Tokyo, 1962.
3. Harvey, David : Explanation in Geography, Edw Arnold. London, 1971.
4. Charley, R.J.andP.Haggett (ed) : Models in Geography, Methuen London, 1967.
5. Minshull, R. : Introduction to Models in Geography, Longman Londo, 1975.
6. Sheskin, I.M. : Survey Research for Geographer scientific Publisher, Jodhpur, 1987.
7. Kothari, C.R. : Research Methodology Method and Techniques, WishwaPrakashan, 1994.
8. Mishra H.N. and V.P. Singh : Research Methodology in Geography Social, Spatial and Policy Dimension. Revert Publications New Delhi, 1998.
9. Her Prasad : Research Methods and Technique in Geography, Rawat Publications, New Delhi, 1992.
10. आहूजारा म : सामाजिक अनुसंधान, रावत पब्लिकेशन, जयपुर, 2015
11. शुक्ला संतोष (संपादक) : शोध विधितंत्र एवं भौगोलिक विश्लेषण वर्धमान महावीर खुला विश्वविद्यालय, कोटा (राजस्थान) 2009
12. शर्मा, वीरेन्द्र प्रकाश : रिसर्च मेथेडोलाजी, पचषील प्रकाशन जयपुर, 2008
13. यादव, हीरालाल : शोध प्रविधि एवं मात्रात्मक भूगोल, 2018, दिल्ली
14. त्रिवेदी, आर.एन. एवं डी.पी. शुक्ला : रिसर्च मेथेडोलाजी, कॉलेज बुक डिपोजयपुर, 2013
15. जैन, बी.एम. : रिसर्च मेथेडोलाजी, रिसर्च पब्लिकेशन जयपुर, 2012
16. त्रिवेदी, आर.एन. : रिसर्च मेथेडोलाजी, कॉलेज बुक डिपोजयपुर

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - III)**  
**PAPER III**  
**Regional Development and Planning**

**Max. Marks: 80**

**OBJECTIVES:-**

- To understand and evaluate the concept of Regional Geography and its role in planning.
- To identify the issues related to the development of the region.
- To identify the causes of regional disparities in development perspective and policy improvement.

**COURSE CONTENTS :-**

- UNIT-I:** Concept of Planning, Region and Planning regions, Origin Definition and scope of Regional Planning. Evolution, Functions and Objectives of Regional Planning.
- UNIT- II** Spatial Organization: Von Thunen's Isolated State, Industrial Location Theory of Weber. Central Place theory: Single Function Central Place System, Multiple Functions and Hierarchies, Loschian Modification,
- UNIT-III:** Regional Development Theories: Export Base Theory, Neoclassical Exogenous Growth Theory, Cumulative Causation Theory of Myrdal, Regional Development Theory of Hirschman., Core –periphery theory of Friedmann, Growth Pole Theory , New Economic Geography.
- UNIT-IV:** Concept of Development. Planning for special areas: River basins- Damodar Valley Corporation, National Capital Region, Development programme (HADP)/ Western Ghats Development programme (WGDP) and Tribal area of Chhattisgarh,

**SUGGESTED READINGS:-**

- (1) Daysch, C.H.J.& Others : Studies in Regional Planning
- (2) Dickinson R.E. : City Region and Regionalism
- (3) Freeman, E.W. : Geography and Planning
- (4) Golksin : Regional Planning and Development
- (5) Keeble. L : Principle and Practice of Town and Country Planning
- (6) Stamp L. D. : The land of Britain: Its use and Misuse.
- (7) Prakash, Rao V. L..P.: Regional Planning
- (8) Misra R.P. & Other : Regional Development and Planning in India
- (9) Puri Mahesh.
- (10) ओझा रघुनाथ : प्रादेशिक नियोजन, पुस्तक भवन कानपुर ।



**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - III)**  
**PAPER IV**  
**Population Geography**

**Max. Marks: 80**

**OBJECTIVES:-**

To introduce the student to the complex dimensions of demography and census, population structure, problem, migration, policies and theories.

**COURSE CONTENTS**

- UNIT-I:** Definition and scope of Population geography. Historical development of population geography in western countries and in India. Sources of demographic data. Census and its history.
- UNIT-II:** Population density and its types, factors affecting population distribution. Population distribution in the world with special reference to Europe and Asia. Distribution of population in India.
- UNIT - III:** Prehistoric and modern trends of population growth in the world. Regional aspect of population growth in India. Population theories. Demographic transition, future growth of population.
- UNIT -IV:** Population composition in terms of age and sex, rural-urban, educational status and occupational structure, Significance of these elements in population analysis, Migration of population: causes, characteristics and types. Methods of estimating internal migration. Internal migration in India. Important international migration.

**SUGGESTED READINGS:-**

1. Bogue, D.J. Principles in Demography, John Wiley. New York, 1969.
2. Census of India: A State Profile, 2001.
3. Clark, John I. Population Geography, Pergamon Press, Oxford 1973.
4. Garner, B.J. Geography of Population Longman, London, 1970.
5. मौर्य एस. डी. : जनसंख्या भूगोल , शारदापब्लिकेशन इलाहाबाद ।
6. पंडाबी. पी. : जनसंख्या भूगोल , म.प्र. हिन्दीग्रंथअकादमीभोपाल ।
7. ओझा आर. : जनसंख्या भूगोल , प्रतिभाप्रकाशन , किताब घरकानपुर ।
8. तिवारीविजय : जनसंख्या भूगोल , हिमालय पब्लिकेशन इलाहाबाद ।

**M.A./M.Sc GEOGRAPHY  
(SEMESTER - III)**

**PAPER V  
Practical**

**Quantitative Techniques, Remote Sensing and Aerial Photographs**

**Max. Marks: 80**

**OBJECTIVES:-**

- To introduce statistical procedures to the student to be applied to various themes in geography.
- To introduce the remote sensing and GIS.

**COURSE CONTENTS:-**

**Section (A) : Quantitative Techniques**

- (i) Measures of Central tendency. Dispersion and Variability. Product Moment and Rank Correlation Coefficient, Linear Regression.
- (ii) Hypothesis Testing: Chi-Square and 't' tests, Analysis of Variance and F test: Sampling,
- (iii) Running mean. Mean centre, Nearest Neighbour Analysis Lorenz Curve,
- (iv) Normal Distribution curve, probability.

**Section (B) Remote Sensing and GIS**

- (i) Air Photos and Photogrammetry: Elements of Photographic Systems: types, scales and ground coverage resolution, films with aerial Cameras, vertical photographs, relief displacement, airphoto interpretation.
- (ii) Image Processing; types of imagery, basic concepts and techniques of visual interpretation, ground verification and transfer of interpreted thematic information to base maps. Remote sensing programme of India: image interpretation, mapping of land use and study of water resources. Application of remote sensing , elements of GIS.

**SUGGESTED READINGS:-**

1. American Society of Photogrammetry : Manual of Remote Sensing. ASP falls Church, V.A.1983.
2. Barrett and L.F. Curtis : Fundamental of Remote Sensing and Air Photo Interpretation. Macmillan, New York 1992.
3. Campbell J. Introduction of Remote Sensing, Gilford. New York, 1989.
4. Pratt W.K. Digital Image processing, Wiley, New York, 1978.
5. Monk house, F.J. & H.R. Wilkinson: Maps Diagrams Methuen, London.
6. Singh, R.L. & Dutt: Elements of Practical Geography Student Friends.
7. Fraser Taylor D.R. Geographic Information Systems, Paragon Press. Oxford 1991.
8. चौनियाल देवी दत्त : सुदूरसंवेदन एवं भौगोलिक सूचना प्रणाली, शारदा पुस्तक भवन इलाहाबाद ।
9. नेगी बी. एस. : भूगोल में आधारभूत सांख्यिकीय , केदारनाथ रामनाथ प्रकाशन मेरठ ।

10. श्रीवास्तवबी. के. : भूगोल की सांख्यिकीय विधियां , वसुंधराप्रकाशनगोरखपुर।

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - IV)**

The M.A. IV Semester Examination in Geography shall consists of 500 marks. There shall be four theory papers and one practical, each of 100 marks as follows:

**THEORY**

Paper	Title	Marks			
		Theory	Internal Test	Seminar	Total
I	Social Geography	80	10	10	100
II	Political Geography	80	10	10	100
III	Environment Geography	80	10	10	100
IV	Disaster management	80	10	10	100

**Field Work**

Paper	Title	Marks
V	Socio-Economic Survey	80
	viva-voice	20

The theory paper shall be of three hour duration . Each theory paper in M. A. IV Semester has been divided into four units.

In the theory examination the following shall be the allotment of marks:

- |       |                    |     |
|-------|--------------------|-----|
| (i)   | Each theorypaper   | 80% |
| (ii)  | Seminar each paper | 10% |
| (iii) | Internalassessment | 10% |

The fifth paper is field work; the candidates will be required to submit their field report in two copies in hard bound before commencement of final exam, which will have 80 marks for valuation and 20 marks for viva-voice.

**M.A./M.Sc GEOGRAPHY**

**(SEMESTER - IV)**  
**PAPER I**  
**Social Geography**

Max. Marks: 80

**OBJECTIVES:-**

- To Familiarize the students with the understanding of the society through concepts and social theory, philosophical approaches and spatial processes;
- To examine the process of social region formats in India with the help of social cultural and historical factors;
- To examine social distortion and regionalize the various components of social well-being in India; to review problems and suggest alternatives to improve the social well-being in environmentally problematic areas.

**COURSE CONTENTS:-**

- UNIT I:** Definition meaning and scope of Social geography .Nature and Relationship with other social sciences.Development of social geography. Approaches to the study of social geography, Evolution of Man. , Definition , Origin and Types of Society and Human Races.
- Unit II:** Society and Environment, Quality of Social Environment, Man's impact on Social environment-environmental pollution. Social well being and human development. Cultural Realms, Cultural Regions of Asia.
- UNIT III:** Indian Society in Historical Perspective, Traditional Hindu Social Organization. Human Race of India .Religious and Linguistic groups of India .Backward and Scheduled Castes.Tribes of India.
- Unit IV:** Social Change in India, Status of Woman in India, Human Development in India, Social Planning In India, Gender Inequality, Woman Empowerment, Urbanization and Related Problems in India.

**SUGGESTED READINGS:-**

1. Ahmad, Aijazuddin. social Geography. Rawat Publication, New Delhi.1999.
2. De Blij. H.D. human Geography. John Wiley and son. New York.
3. Dreze Jean, Amartya Sen, Economic Development and Social opportunity. Oxford University Press, New Delhi,1996.
4. Dubey. S.C. : Indian Society, National Book Trust, New Delhi,1991.
5. Maloney, Clarence: People of South Asia, Winston, New York,1974.
6. Planning Commission, Government of India: Report on Development of Tribal Areas,1981.
7. मौर्य एस. डी. : सामाजिकभूगोल , शारदापुस्तकभवन , इलाहाबाद 2, 2004।

**M.A./M.Sc GEOGRAPHY**

**(SEMESTER - IV)**  
**PAPER II**  
**Political Geography**

Max. Marks: 80

**OBJECTIVES:-**

- To expose the students to the strategic importance of geographical parameters in the Political Science at global, regional and local level;
- to sensitize the students to geopolitical dimensions and the understanding of conflicts and regional cooperation; and to make them familiar with the Political geography of selected countries.

**COURSE CONTENTS:-**

- Unit-I:** Nature, scope, history and recent development in Political geography; approaches to study, major schools of political thought. Global Strategic views.
- Unit-II:** Geographic Elements and the State: Physical Elements; Human elements: Economic elements; Cultural elements and Political geography and environment interface .Concept of State, Nation, Frontiers and Boundaries
- Unit-III:** Capital and Core Area , Geographical studies of Election , Supra - Nationalism i.e Emergence of International Organization and their Role in World Politics, The changing patterns of World Powers.
- Unit-IV:** Geopolitical significance of Indian Ocean: Political geography of SAARC Region. Political geography of contemporary India with special reference to its spirit: Unity in Diversity. Emerging Politico - geographical issues in modern World.

**SUGGESTED READINGS:-**

1. Dikshit, R.D. Political Geography: A Contemporary Perspective. Tata McGraw Hill. New Delhi. 1996.
2. Sukhwai, B.L. Modern Political Geography of India Sterling Publishers, New Delhi. 1968.
3. सक्सेना हरिमोहन : राजनीतिक भूगोल , रस्तोगी प्रकाशन मेरठ ।
4. दीक्षित आर. डी. : राजनीतिक भूगोल , समसामयिक परिदृष्टि पी.एच.आई. ।
5. दीक्षित श्रीकांत : राजनीतिक भूगोल और राजनीति , दिल्ली पब्लिकेशन लाइब्रेरी भारत सरकार पर्यटन मंत्रालय ।

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - IV)**

## **PAPER III**

### **Environment Geography**

Max. Marks: 80

#### **OBJECTIVES:-**

- The main objective of the subject is to sensitize the student to nature and environment.
- The objectives of the course is to familiarize the students with the need for understanding of natural environment - flora and fauna, man environment relationship, environmental degradation, pollution, environment impact assessment and management.

#### **COURSE CONTENTS:-**

- Unit I:** Meaning, definition, Concepts and theories related to environment. Environment and its components, Man environment relationship, Ecology and Ecosystem.
- Unit II:** Plant and Animal Kingdom, Bio-diversity. Biomes. Food Chains, Tropic level and productivity, Energy flow, Circulation of Elements, hydrological cycle.
- Unit III:** Soil system-erosion, Man and Climate, Environment Degradation. Environment Planning and Management, Pollution.
- Unit IV:** Deforestation and Desertification, Hazards and Disaster. Environment Problem- global and in Indian scenario, Global Co-operation, World Summit on Sustainable development.

#### **SUGGESTED READINGS:-**

1. Agrawal, Anil and Sunita Narain, Dying Wisdom: The Fourth citizen Report. Center for Science and Environment, New Delhi, 1998.
2. Chandna, R.C. Environmental Awareness Kalyani Publisher, New Delhi, 1998.
3. Singh, S. Environmental Geography. Prayag Pustak Sadan, Allahabad, 2000.
4. सविन्द्र सिंह : पर्यावरणभूगोल , प्रयाग पुस्तक सदन इलाहाबाद ।
5. शर्मा बी.एल. : पर्यावरणसाहित्य भवन, आगरा 1992 ।
6. डॉ. गायत्री प्रसाद एवं राजेश नौटियाल : पर्यावरणभूगोल, शारदा पुस्तक भवन इलाहाबाद ।
7. नेगी पी. एस. : पारिस्थितिकीय विकास एवं पर्यावरणभूगोल, रस्तोगी एंड कम्पनी मेरठ 1995 ।

**M.A./M.Sc GEOGRAPHY**  
**(SEMESTER - IV)**

## **PAPER IV**

### **Disaster management**

**Max. Marks : 80**

**OBJECTIVES :-**

- To understand the meaning of disaster and its vulnerability in rural and urban areas.
- To recognize and analyse the problem and prospect.
- To understand the relief, rescue and rehabilitation.

**COURSE CONTENTS:-**

- UNIT-I** Disaster meaning and concept- hazard, risk, vulnerability, disaster management, plans, managing environment. Disaster its effect on different social group. Poverty and vulnerability. Disaster management prevention, preparedness and mitigation.
- UNIT -II** Disaster - Classification of disaster; Natural disaster - earthquake, floods, drought and global warming causes consequences and mitigation, natural disaster prone areas of world and India.
- UNIT -III** Disaster - manmade disasters, their types- technological and industrial disasters. Social disaster: cause consequences and mitigation. With special reference to India.
- UNIT -IV** Disaster management- relief and response, reconstruction and rehabilitation. Disaster - Strategies for survival, types of strategies. Importance of information in disaster management, significance of Remote Sense and GIS. Planning in the context of Disaster management.

**SUGGESTED READINGS:-**

- 1- आपदाप्रबंधन, वसुंधराप्रकाशनगोरखपुर।

**(SEMESTER - IV)**  
**PAPER V**  
**Project Work**  
**Socio-Economic Survey**

**Max. Marks 80**

**OBJECTIVES -**

Main objective of the field work is to provide the students to understand the ground reality of a chosen village or ward of town by observation, mapping of land quality, land use and cropping pattern, Health, Hygiene Education and conducting socio- economic survey of the households with the help of a specially prepared questionnaire.

**COURSE CONTENTS:-**

1. Physical aspect- Location, Physical feature, Climate, Vegetation, Drainage, Soil and Landuse.
2. Cultural aspect- Population, Economic activities, Services and Settlements.
3. Analysis of the findings and reportwriting.

**SUGGESTED METHODOLOGY:-**

1. Study of topographic map of 1:500000 or 1:1,25,000 scale.
2. Collect demographic, social and economic data of the village or town from census or secondary reports to study the Spatio- temporal changes.
3. Prepare a cadastral map of village or town.
4. Conduct a socio- economic survey of the household with a structured questionnaire to get primary data.
5. Based on the results of the land use and socio- economic survey of the household and to prepare a critical field report. Photographs, and sketches in addition to maps and diagrams may supplement thereport.