

(i) B.A./B.Sc.(Geography)  
(Pass Course)

Paper	Title	Max. Marks	
		BA	B.Sc.
<b>B.A. I/B.Sc. I</b>			
I	<i>Introduction to Geography</i>	30	45
II	Physical Geography I (Elements of Geomorphology)	30	45
III	Cartography I	30	45
	Internal Assessment	10	15
		100	150
<b>B.A. II/B.Sc. II</b>			
IV	Physical Geography II (Climatology & Oceanography)	30	45
V	Human Geography	30	45
VI	Cartography II	30	45
	Internal Assessment	10	15
		100	150
<b>B.A. III/B.Sc. III</b>			
VII	Geography of India	30	45
VIII	Resources & Environment	30	45
IX	Cartography III	30	45
	Internal Assessment	10	15
		100	150
	<b>Total</b>	300	450

(ii) B.A./B.Sc.(Geography)  
(Honours Course)

Paper	Title	Max. Marks	
		BA	B.Sc.
<b>B.A. I/B.Sc. I</b>			
I	Applied Geography	100	
<b>B.A. II/B.Sc. II (Any one of the Following)</b>			
II	Biogeography	100	1
	Economic Geography		
	Political Geography		
	Population Geography		
	Settlement Geography		
<b>B.A. III/B.Sc. III</b>			
III	Advanced Cartography	100	
IV	Regional Geography of the World (Natural and Cultural Regions)	100	
	<b>Total</b>	400	

ANNEXURE-II

B.A./B.Sc. (General)  
First Year

Maximum Marks

B.A.: 30

B.Sc.: 45

Time: 3 Hours

Paper-I

INTRODUCTION TO GEOGRAPHY. ✓

**Objective:**

This introductory paper is intended to acquaint the students with distinctiveness of geography as a field of learning in social science as well as in natural science. The Philosophy and methodology of the subject is discussed in such away that students develop a keen interest in the subject and pursue it for higher studies.

**Course Content:**

Unit-I

Introduction:

The nature of geography; objectives and relevance; place of geography in the Classification of sciences; geography and other disciplines; A brief overview of geography as a discipline.

Unit-II

Geography: Major themes & sub themes

Geography as the study of environment; man-environment relationship; ecology and ecosystem; environmental determinism, possibilism, neo-determinism

Unit-III

Geography Major Themes, sub themes and perspectives

Dualism in geography-Systematic/Regional; Physical/human; complementarily. Recent trends in geography with special reference to India.

Unit-IV

Methodology:

- (i) Cartographic- map making and mapping techniques;
- (ii) Quantitative- statistical methods;
- (iii) Field work- collection of primary data through physical and socio-economic surveys; statistical analysis of data and preparation of maps
- (iv) Instrumental surveys.

Unit-V

Modern Techniques

An introduction to Modern Techniques: Use of Air photographs and Satellite imageries; Remote sensing as a tool for data generation and mapping; Geographical Information System, GIS and Computer Cartography

Note:

The examination would be of Three hours duration. The Question Paper would contain 10 questions- Two questions from each of the given five units spread equally over the whole syllabus. Maximum marks are 30 for B.A. and 45 for B.Sc. candidates. Each question will carry equal marks. The candidate required to attempt five questions in all, selecting at-least one question from each of the five units respectively. It is to be noted that the choice of questions will be permitted within the concerned unit only.

B.A./B.Sc. (General)  
First Year

Maximum Marks

~~B.A.~~ ~~A~~ 30

~~B.Sc.~~ ~~Sc~~ 45

Time: 3 Hours

Paper II ✓  
PHYSICAL GEOGRAPHY-I  
(Earth's Origin and Elements of Geomorphology)

Objective:

The objective of this course is to introduce the latest concepts in physical geography, essentially geomorphology; to the students of geography in a brief but adequate manner.

Course contents:

Unit-I Origin of the Earth: A General introduction to the Solar System; Theories Regarding the origin of the Earth-Nebular Hypothesis of Kant and Laplace; and Tidal Hypothesis of Jeans and Jeffreys. A brief introduction to Earth's Dimensions-Earth's size, shape, motions and time.

Unit-II Geological time scale; Earth's interior; Earth movements- orogenic and Eperigenic (Folding and Faulting)

Unit-III Earthquakes and Volcanoes, Isostasy, Wegner's theory of Continental Drift and Plate Tectonics.

Unit-IV Rocks- Origin and composition; weathering, Mass wasting, concept of cycle of Erosion, Interruption in the cycle of erosion

Unit-V Geomorphic Agents and Processes- Erosion, Transportation and Deposition- Fluvial, Glacial, Acolian, (Arid) Karst and coastal (Marine) landscapes.

Note: The examination would be of Three hours duration. The Question Paper would contain 10 questions- Two questions from each of the given five units spread equally over the whole syllabus. Maximum marks are 30 for B.A. and 45 for B.Sc. candidates. Each question will carry equal marks. The candidate required to attempt five questions in all, selecting at-least one question from each of the five units respectively. It is to be noted that the choice of questions will be permitted within the concerned unit only.

**Suggested Readings:**

1. Dayal, P.A. Text book of Geomorphology, Shukla Book Depot, Patna, 1996
2. Dury, G.H. The Face of the Earth, Penguins, 1980.
3. Ernst, W.G.: Earth Systems- Process and Issues, Cambridge University Press, 2002
4. ICSSR: A Survey of Research in Physical Geography, Concept, New Delhi, 1983.
5. Kale V. and Gupta, A: Element of Geomorphology, Oxford University Press, Calcutta, 2001.

B.A./B.Sc. (General)  
First Year

Maximum Marks  
B.A.: 30  
B.Sc.: 45  
Time: 3 Hours

Paper-III

Cartography-I  
(Map work and Field work)

**Objective:**

Geography is an amalgam of physical as well as social sciences and as such, it is necessary for the students to go through laboratory exercises, particularly the techniques of drawing cartograms showing physical, climatic and socio-economic attributes of a region. To achieve this objective, the concept of scale is to be understood at the initial stage.

Course Contents:

- Unit-I An introduction to cartography scales- Methods of Representing scales and their types- Plain, Comparative and Diagonal. Maps and types, classification of maps.
- Unit-II Methods of Representing Relief- Quantitative and Qualitative Methods- Representation of different landforms by contours.
- Unit-III Profiles, Drawing of Profiles: cross and long profiles, superimposed, composite and projected profiles and their relevance in landform mapping and analysis.
- Unit-IV Study of Survey of India topographical maps- Classification and scale. Interpretation of S01 topo-sheets of a hilly and a plain area of India in respect of (i) relief (ii) drainage, (iii) settlement and (iv) communication paffer.
- Unit-V Field work- Basic Principles of land surveying: Chain and Tape survey (Exercises on Triangulation and traversing only)

Note: There would be map work written and field work examination of 4 Hours duration to be conducted in the Geography Laboratory of the College. The question paper would contain 5 questions set by the External and Internal examiners. The candidate will have to attempt any three questions. All questions in map work written carry equal marks.

The distribution of marks in this paper as follows:

	B.A. candidates	B.Sc. candidates
(a) Practical Record Book	5	7.5
(b) Viva-Voce	5	7.5
(c) Map work written	15	22.5
(d) Field work	5	7.5
Grand Total	30	45
Internal Assessment	10	15
	40	60

B.A./B.Sc. (General)  
Second Year

Maximum Marks  
B.A.: 30  
B.Sc.: 45  
Time: 3 Hours

Paper-IV

PHYSICAL GEOGRAPHY-II  
(CLIMATOLOGY AND OCEANOGRAPHY)

Objective:

- This paper on physical geography is structured into components of climatology and oceanography. The aspects of climatology emphasize the constituents of the atmosphere, the dynamic nature of the processes associated with it and their contribution in making the earth habitable. The course content also leads to the identification of climatic differentiation on the earth, and the consequences of human activities on the atmospheric processes.
- The component of oceanography similarly deals with the coastal processes and describes the vast and diversified resources the oceans hold.

Course Contents:

A CLIMATOLOGY

Unit-I Weather and climate; elements of weather and climate; Composition and structure of the atmosphere. Atmospheric Insolation and Temperature: Factors, horizontal and vertical- (Inversion of temperature)

Unit-II Atmospheric pressure and winds; vertical and horizontal distribution of pressure; planetary, periodic and local winds. Atmospheric moisture: humidity, evaporation; and condensation; hydrological cycle; types of precipitation, world patterns of rainfall.

Unit-III Air masses and fronts: concept, classification and properties. Atmospheric disturbance: tropical and temperate cyclones; thunderstorms and tornadoes. Climatic classification; Koppen's classification

B OCEANOGRAPHY

Unit-IV Surface configuration of the ocean floor, continental shelf, continental slope, abyssal plain, mid-oceanic and oceanic trenches. Relief of Atlantic, Pacific and Indian Oceans. Distribution of temperature and salinity of oceans and seas.

Unit-V Circulation of oceanic waters: waves, tides and currents; currents of the Atlantic, Pacific and Indian oceans, Marine deposits and coral reefs; Oceans as storehouse of resources for the future.

Note: The examination would be of Three hours duration. The Question Paper would contain 10 questions- Two questions from each of the given five units spread equally over the whole syllabus. Maximum marks are 30 for B.A. and 45 for B.Sc. candidates. Each question will carry equal marks. The candidate required to attempt five questions in all, selecting at-least one question from each of the five units respectively. It is to be noted that the choice of questions will be permitted within the concerned unit only.

**B.A./B.Sc. (General)**  
**Second Year**

**Maximum Marks**  
**B.A.: 30**  
**B.Sc.: 45**  
**Time: 3 Hours**

**Paper-V**

**HUMAN GEOGRAPHY**

**Objective:**

The objectives of this course are to acquaint the students with the nature of man-environment relationship and human capability to adopt and modify the environment under its varied conditions from primitive life style to the modern living; to identify and understand environment and population in terms of their quality and spatial distribution pattern and to comprehend the contemporary issues facing the global community.

**Course Content:**

- Unit-I            Division of Mankind: Races-criteria of selection of Races, Distribution of Races; Major Linguistic groups of the world; World Patterns of Religions and Cultural Realms.
- Unit-II            Human Adaptation to the environment: (i) cold region- Eskimo; (ii) hot region Bushman, Beduin; (iii) Plateau-Gonds, Masai, (iv) Mountain- Gujjars, nomads,
- Unit-III           Population Distribution and Growth: Factors Affecting Population Distribution; Patterns of Population Distribution in the world; Patterns of Population Growth, Differentials of population growth in developed and developing countries. Zero population growth
- Unit-IV           Population, Resources and Migration Demographic cycle concepts of over population, Under population and optimum population; population problems in developed and developing countries; Migration- Causes, Patterns (Past and Present) and consequence.
- Unit-V            Rural and Urban Settlements Definition, Types and Patterns of Rural Settlements; Origin and Evolution of urban settlements; Functional classification of urban places; Trends, Patterns and problems of urbanization in the world

**Note:**            The examination would be of Three hours duration. The Question Paper would contain 10 questions- Two questions from each of the given five units spread equally over the whole syllabus. Maximum marks are 30 for B.A. and 45 for B.Sc. candidates. Each question will carry equal marks. The candidate required to attempt five questions in all, selecting at-least one question from each of the five units respectively. It is to be noted that the choice of questions will be permitted within the concerned unit only.

**Suggested Readings**

## Suggested Readings

### Climatology

1. Barry, R.G. & Chorley, R.J. Atmosphere, Weather and Climate, Routledge, 1998.
2. Critchfield, H.: General Climatology, Prentice-Hall, New York, 1975.
3. Das, P.K.: The Monsoons, National Book Trust, New Delhi, 1968.
4. Lydolph, Paul, E. : The Climate of the Earth, Rowman and Allnheld, Totowa, N. J. 1985.
5. Mather, J.R. : Climatology, McGraw-Hill, New York, 1974.
6. Patterson, S. : Introduction of Meteorology, McGraw-Hill Book Co., London, 1969
7. Stringer, E.T. : Foundation of Climatology, Surjeet Publications, Delhi, 1982.
8. Trewartha, G.T.: An Introduction to Climate, International Students edition, McGraw Hill, New York, 1980

### Oceanography

1. Anilouchine, W.A. and Sternberg, R.W. : The World Oceans-An Introduction to Oceanography, Englewood Cliffs, N.J. 1973.
2. Grald, S.: General Oceanography-An Introduction, John Wiley & Sons, New York, 1980.
3. Garrison, T. Oceanography. Wadsworth, Com. USA 1998.
4. King, C.A.M.: Beaches and Coasts, E. Arnold, London, 1972.
5. King, C.A.M.: Oceanography for Geographers E. Arnold, London, 1975.

**B.A./B.Sc. (General)**  
**Second Year**

**Maximum Marks**

**B.A.: 30**

**B.Sc.: 45**

**Time: 4 Hours**

**Paper VI**

**CARTOGRAPHY-II**  
**(Map work and Field Work)**

**Objectives:**

The objectives of this course are to train the students in the art of representing demographic and socio-economic database of any area through simple statistical techniques and cartograms. The techniques of surveying and map projections necessary for accurate geographical positioning and preparing physical plans of an area also form parts of the practical exercises. This course thus trains the students in preparing different types of maps.

**Course Contents:**

- Unit-I      Types of cartographic symbols and their uses: (a) Points (dots, proportional circles and spheres) (b) Line, (isopleths) (c) Areas (Choropleth) Representation of temperature, pressure and rainfall data by Isopleth lines, (examples isotherms, isobars and isohyets): and Representation of population (distribution, density, growth etc., land-use cropping pattern and industries data etc.
- Unit-II      Use of Line and Bar Graphs/Diagrams for representing population, agricultural, industrial and climatic data.
- Unit-III     Drawing of climographs and hythergraphs and their interpretation- Weather maps of India published by Indian Meteorological Department for July and January: Interpretation of Weather Maps.
- Unit-IV     Use of Mean, Median and Mode, and Standard Deviation in data analysis and mapping- scatter diagram- association and relationship, Histogram, Frequency curves and polygon.
- Unit-V      Field Work: Basic Principles of land surveying- Plane table survey (Traversing Methods only)

**Note:** There would be map work written and field work examination of 4 Hours duration to be conducted in the Geography Laboratory of the College. The question paper would contain 5 questions set by the External and Internal examiners. The candidate will have to attempt any three questions. All questions in map work written carry equal marks.

**The distribution of marks in this paper as follows:**

	<u>B.A. candidates</u>	<u>B.Sc. candidates</u>
(a) Practical Record Book	5	7.5
(b) Viva-Voce	5	7.5
(c) Map work written	15	22.5
(d) Field work	5	7.5
Grand Total	30	45
Internal Assessment	10	15
	40	60

**Note:** The marks of internal assessment to be based on the attendance of the student.



B.A./B.Sc. (General)  
Third Year

Maximum Marks  
B.A.: 30  
B.Sc.: 45  
Time: 3 Hours

Paper VII

GEOGRAPHY OF INDIA

Objective

The course is aimed at presenting a comprehensive, integrated and empirically based profile of India. Besides, the objective is to highlight the linkages of systematic geography of India with the regional personality of the country. The course is designed so as to present the role of the geographical positioning of India in moulding its geopolitical personality and its inter-relations with other countries.

Course contents:

- Unit-I      India: A land of diversities-Unity within diversities; A detailed study of Physiographic Divisions of India; Drainage systems of India.
- Unit-II      Regional and seasonal variations of climate- The monsoon, western disturbance, norwesters, Climatic regions of India (Koppen and Trewartha) Soil types of India- their distribution and characteristics; Vegetation types and their distribution.
- Unit-III     Population and Agriculture: Spatial patterns of Population Distribution and Growth; Social-economic implications of population explosion. Major Agricultural Crops: Rice, Wheat, Cotton and Tea. Green Revolution and its impact. Problems of Indian Agriculture.
- Unit-IV     Mineral and Power Resources and Industries- The status of their use and need for conservation. Minerals- Iron ore, Power Resources- Coal, Petroleum and Hydropower; Industries: Spatial Patterns of Iron and Steel and Cotton Textile Industries. Industrial Regions of India.
- Unit-V      Study of Physical and Economic aspects of Geography of Himachal Pradesh: Geomorphology, Climate, Drainage, Vegetation, Hydropower, and Horticulture

**Note:** The examination would be of Three hours duration. The Question Paper would contain 10 questions- Two questions from each of the given five units spread equally over the whole syllabus. Maximum marks are 30 for B.A. and 45 for B.Sc. candidates. Each question will carry equal marks. The candidate required to attempt five questions in all, selecting at-least one question from each of the five units respectively. It is to be noted that the choice of questions will be permitted within the concerned unit only.

**B.A./B.Sc. (General)**  
**Third Year**

**Maximum Marks**

**B.A.: 30**

**B.Sc.: 45**

**Time: 3 Hours**

**Paper VIII                      RESOURCES AND ENVIRONMENT**

**Objectives**

The objective of this paper is to provide an overview of resource geography and its interface with environment. The course aims to provide an understanding of the existing reality of resource utilization and environmental depletion; further aims to sensitize the students to the concept of sustainable resource use and sustainable development.

**Course Contents:**

**A.        RESOURCES**

Unit-I            Meaning, nature and components of resources and environment; Classification of resources: renewable and non-renewable: biotic (forests, wild-life, live-stock, fisheries, agricultural crops) and abiotic (land, water, mineral).

Unit-II            Distribution and utilization of water mineral and energy resources, their economic and environmental significance and conservation. Types and distribution of forests and fisheries- their economic and environmental significance and conservation. Major soil types and their distribution; problems of soil erosion and soil conservation. Mineral Resources- Iron ore and Energy Resources- Coal and Petroleum.

Unit-III            Number, density, growth and distribution of population; population pressure and resource utilization.

**B.        ENVIRONMENT**

Unit-IV            Classification of Environment: Natural and Human. Man-environment interrelations with concept of eco system; exploitation of natural resources and environmental hazards.

Unit-V            Emerging environmental issues- population explosion; food security; deforestation, global warming, conservation of bio-diversity; sustainable development.

Note:            The examination would be of Three hours duration. The Question Paper would contain 10 questions- Two questions from each of the given five units spread equally over the whole syllabus. Maximum marks are 30 for B.A. and 45 for B.Sc. candidates. Each question will carry equal marks. The candidate required to attempt five questions in all, selecting at-least one question from each of the five units respectively. It is to be noted that the choice of questions will be permitted within the concerned unit only.

B.A./B.Sc. (General)  
Third Year

Maximum Marks  
B.A.: 30  
B.Sc.: 45  
Time: 4 Hours

**Paper IX**

**CARTOGRAPHY-III**  
**(Map Work and Field Work)**

- Unit-I      Map Projections and their classification
- Unit-II      Graphical construction and properties of cylindrical and Conical Projections-  
Simple cylindrical, Equidistant, Equal Area and Mercator's Projection. Conical-  
Simple conical with one standard parallel, two standard parallel, Bonne's  
Projection and Polyconic Projection
- Unit-III     Graphical construction and Properties of Zenithal and Conventional Map  
Projections. Zenithal Equi-distant, Equal Area, Gnomonic Stereographic and  
Orthographic Sinusoidal and Mollweides Projection.
- Unit-IV     Field Work and Field Report: Select any area near the Institution; collect topo-  
sheets of the area- 1:50,000 scale; Visit the area and identify the landforms,  
settlements, land-use features and compare the same with the topo-sheets. Draw  
sketches and maps of the selected area; conduct field work with the help of Survey  
instrument and incorporate the same in final Field Report..
- Unit-V      Basic Principles of Land Surveying- Prismatic Compass Survey (Traversing  
Methods only)

**Note:** There would be map work written and field work examination of 4 Hours duration to be conducted in the concerned Geography Laboratory of the College. The question paper would contain 5 questions to be set by the External and Internal examiners. The candidate will have to attempt any three questions. All questions in map work written carry equal marks.

The distribution of marks in this paper as follows:

	<u>B.A. candidates</u>	<u>B.Sc. candidates</u>
(a) Practical Record Book	5	7.5
(b) Viva-Voce	5	7.5
(c) Map work written	12	18
(d) Field work (Surveying)	4	6
(e) Field Report	4	6
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Grand Total	30	45
Internal Assessment	10	15
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	40	60

Note: The marks of internal assessment to be based on the attendance of the student.

**Objectives:**

To understand the prevalent issues in environment, society and economy and to provide a geographical interpretation with special reference to India.

**Course Contents:**

- Unit-I** Nature, scope and content of applied geography; identification of problems of interdisciplinary nature (like environment resource base, resource-use, development and disparity).
- Unit-II** Issues related to variations in physical environment. Variations in land quality affecting agricultural productivity; environmental degradation, environmental disaster and environmental management.
- Unit-III** Issues related to human resources; quality vs numbers; social and demographic issues; diversity and disparity; carrying capacity of the earth; human resource use and manpower planning.
- Unit-IV** Issues related to economy; spatial organization of economic activities (like agriculture, industry, transport, trade, etc.) spatial inequalities-causes and consequences.

**Note :** The paper has four units. There will be TEN questions in all, at least two from each unit. The candidates are required to attempt FIVE questions, selecting at least one question from each unit. All questions carry equal marks.

**Suggested Readings**

1. Dohrs, F.E. and Sommers, L.W.(eds.) Introduction to Geography, Thomas Y. Crowell Co., New York, 1967.
2. Hartshorne Richard: Perspective on the Nature of Geography Rand McNally & Co., Chicago, 1959.
3. Harvey, David: Explanation in Geography, Edward-Arnold, London, 1972.
4. Holt-Jensen, A: Geography: Its History and Concepts, Longmans, 1980.
5. Husain, Majid: Evolution of Geographical Thought, Rawat Publications, Jaipur, 1984.
6. James, P.E.: All possible Worlds: A History of Geographical ideas, Sachin Publication, Jaipur, 1980 (Indian reprint).
7. Johnston, R.J. and Claval, P.(eds.): Geography Since the Second World War, Croom Helm, London/Bernes and Noble, Totowa, N.J., 1984.
8. Jones, P.A.: Fieldwork in Geography, Longmans.
9. Lownsburg, J.F. and Aldrich, F.T.: Introduction to Geographical Methods and Techniques, Charles Marrill, Columbus, 1979.
10. Minshull, R.: The Changing Nature of Geography, Hutchnson University Library, London, 1970.
11. Wooldridge, S.W.: The Geographer As a Scientist, Thomas Nelson and Sons Ltd., London, 1956.
12. Misra, V.C., Ayyar, N.P.et.al. (editors): Essay in applied Geography University Printing Press, Saugar, 1976.

**Objectives:****Course Contents:**

- Unit-I Definition, scope and significance of Biogeography; Basic ecological principles: Bio energy cycle in the terrestrial ecosystem; energy budget of the earth; Trophic levels and food chain; Darwin's theory of evolution; Concepts of Biome, Ecotone and Community.
- Unit-II Origin of fauna and flora; major gene-centres; domestication of plants and animals and their dispersal agents and routes. Distribution of plant life on the earth and its relation to soil, climate and human activities; Geographical distribution of animal life on the earth and its relation to vegetation types, climate and human activities.
- Unit-IV Communities- nature of communities and ecosystems; bio-diversities; human induced community change, habitat decay and conservation. Industrial effluent and its effect on fresh water and marine biology; management practices (special reference to India)
- Unit-V Study of any two of the following ecological regions of India in relation to their plant and animal life, their interrelations, problems, conservation and management: (a) Mangrove (b) Tropical rainforest (c) Desert (d) Mountain (e) Fresh water and marine.

**Note :** The paper has four units. There will be TEN questions in all, at least two from each unit. The candidates are required to attempt FIVE questions, selecting at least one question from each unit. All questions carry equal marks.

**Suggested Readings**

1. Barry, C.: Biogeography- An Ecological and Evolutionary Approach, Cox Blackwell, Oxford, 1977.
2. Hagget, R.J.: Fundamentals of Biogeography. Routledge, London, 1988.
3. Hagget, R.J.: Geocology: an Evolutionary Approach, Routledge, London, 1995.
4. Joy, T.: Biogeography: A Study of Plants in the Ecosphere, Longman Science & Technology, U.K. 1993.
5. Martin, C.: Plant Geography, Methuen, 1975.
6. Phillip, J.: Zoo Geography: The Geographical Distribution of Animals, John Wiley, New York, 1957.
7. Robinson H.: Biogeography, McDonald and Evans, London, 1982.
8. Seddon. B. : Biogeography, Duckworth, London, 1971.
9. Spellrberg, I.F & Sawyer, J.W.D.: An Introduction to Applied Biogeography, Cambridge University Press, 1999.
10. World Resources 2000-01: People and Ecosystems: World Resources Institute, Washington, 2001.

**Course Contents:**

- Unit-I** Nature, scope and subject matter of political geography; political geography and geopolitics.
- approaches to the study of political geography; morphological, functional and unified field theory.
  - Role of Physical, demographic, economic, socio-cultural and historical factors in the emergence of States.
- Unit-II** State as a politico-territorial phenomenon:
- Changing nature of location, size and shape in political geography of States;
  - Political and administrative framework and its hierarchical relationship to unitary and federal forms of governance
  - Boundaries and frontiers.
  - Functions and classification of international boundaries.
- Unit-III** Global strategic views: the views of Mackinder, Spykman; de Seversky, and Mahan and their relevance to contemporary world situation.
- Unit-IV** Underdevelopment and international policies, the North-South dialogue; SAARC and ASEAN the new International Economic order;
- International tensions; identification of tension areas and factors contributing to tension in different areas; West Asia, and Indian Ocean region; Regionalism in International relations.
- Unit-V** Geopolitical dimensions of environment

**Note :** The paper has five units. There will be TEN questions in all, at least two from each unit. The candidates are required to attempt FIVE questions, selecting at least one question from each unit. All questions carry equal marks.

**Suggested Readings**

1. Bhagwati, J.N.(ed.) New International Economic Order- The North-South Debate, M.I.T, press, London, 1976
2. Dikshit, R.D.: Political Geography: A Contemporary Perspective, Tata McGraw-Hill Publishing Co., New Delhi, 1982 (also latest edition).
3. Glassner M.I.: Political Geography, John Wiley, New York, 1993
4. Panikkar, K.M. Geographical factors in Indian History. Bharatiya Vidya Bhavan, Bombay 1956.
5. Pounds N.T.: Political Geography McGraw Hill, New York, 1972.
6. Prescott, J.R.V.: Political Geography, Methuen & Co., London, 1972.
7. Schwartzberg, J.E.: A Historical Atlas of South Asia, University of Chicago Press, U.S.A. 1993.
8. Short, J.R.: An Introduction to Political Geography, Routledge and Kegan Paul, London, 1982.
9. Taylor P.J (ed.): Political Geography of the 20<sup>th</sup> Century- A Global Analysis. New York, 1993.
10. Taylor, Peter: Political Geography, Longman, London, 1985.
11. William C.H. (ed.): Political Geography of the New World Order Halsted Ben, New York, 1993.

**Course contents:**

- Unit-I Definition, nature, scope and recent trends of economic geography, its relation with economics, and allied subjects, Classification of economies, local and spatial organization; Sectors of economy-primary, secondary and tertiary; the impact of economic activities on environment.
- Unit-II Natural resources, classification-renewable and non-renewable-biotic and abiotic, Conservation of resources, changing nature of economic activities; mining, forestry, agriculture, industry, trade and transport.
- Unit-III Agriculture-physical, social, cultural environment influencing crop production; Spatial distribution of major food and cash crops of the world; Agricultural types and classification.
- Unit-IV Minerals and Industries-classification of minerals: ferrous and non-ferrous and their world distribution, energy minerals and resources. Industries: factors of localization, Major industries-iron and steel, textile, chemicals, cement, paper, ship buildings and small scale and cottage industries.
- Unit-V Trade and Transport: geographical factors in their development, Major water, land and air transport. Internal and international trade. World Trade Organization (WTO) and globalization and their effect on developing countries of the world.

**Note :** The paper has five units. There will be TEN questions in all, at least two from each unit. The candidates are required to attempt FIVE questions, selecting at least one question from each unit. All questions carry equal marks.

**Suggested Readings**

1. Boesch, H.: A Geography of World Economy, D. Van Nostrand Co., New York, 1964.
2. Chapman, J.D.: Geography and Energy, Longman, London, 1989.
3. Gregor, H.F.: Geography of Agriculture, Prentice Hall, New Jersey, USA, 1970.
4. Griggs, D.B.: The Agricultural Systems of the World, Cambridge University Press, New York, 1974.
5. Hartshorne, T.N. and Alexander, J.W.: Economic Geography, Prentice Hall, New Delhi, 1988.
6. Jopnes, C.F. and Darkenwald, G.G.: Economic Geography, McMillan Co., New York, 1975.
7. Millar E.: Geography of Manufacturing, Prentice Hall, New York, 1967
8. Raza. M and Agrawal, Y.: Transport Geography of India, Concept, New Delhi, 1986.
9. Smith, D.M.: Industrial Location-An Economic Geographic Analysis, John Wiley, New York, 1971.
10. Thomas, R.S.: The Geography of Economic Activities, McGraw Hill, New York 1967.

**Course Contents:**

- Unit-I Nature, scope and contents of Population Geography; sources of data.
- Unit-II Spatial pattern of distribution- distribution, density and growth of population; determinants of world regional patterns, the Indian Scene.
- Unit-III Composition of Population: Age and Sex composition; rural-urban composition, economic composition; determinants; world regional patterns; composition of population in India.
- Unit-IV Migration: Classification, determinants and consequences of migration; world regional patterns; migration in India.
- Unit-V Population and Environment interface: Cause-effect syndrome; global and Indian profile.

**Note :** The paper has five units. There will be TEN questions in all, at least two from each unit. The candidates are required to attempt FIVE questions, selecting at least one question from each unit. All questions carry equal marks.

**Suggested Readings**

1. Beaujeu-Garnier, J.: Geography of Population (Translated by Beaver, S.H.) Longmans, London, 1966.
2. Census of India 2001 Series-I India Provisional Population Totals. Published by Registrar General & Census Commissioner, India, 2001.
3. Census of India, 1991 India: A State Profile Published by office of the Registrar General of India, Census Operations, New Delhi.
4. Chandna, R.C.: Geography of Population: Concepts, Determinants and Patterns, Kalyānai Publishers, New Delhi, 2000.
5. Clark J.I.: Population Geography, Permagon Press, New York, 1965.
6. Sundram K.V. & Nangia Sudesh, (editors): Population Geography, Heritage Publishers, Delhi, 1986.
7. Peters: G.L. and Larkim R.P.: Population Geography: Problems, Concepts and prospects Kendele-Hunt Iowa, 1979.
8. Srinivasan K. and M. Vlassoff Population Development nexus in India: challenges for the new millennium. Tata McGraw Hill Publishing Co. Ltd., New Delhi 2001.
9. Trewartha, G.T.: A Geography of Population: World Patterns, John Wiley & Sons, Inc., New York, 1969.
10. Trewartha, G.T.: The More Developed Realm: A Geography of its Population, Pergamon Press, Oxford, 1978.
11. Trewartha, G.T.: The Less Developed Realm- A Population Geography, McGraw-Hill, New York, 1972.
12. UNDP: Human Development Report, Oxford University Press 2001.
13. Zelinsky, W.: A Prologue to Population Geography, prentice-Hall, Englewood Cliffs, 1966.



Paper-II

SETTLEMENT GEOGRAPHY

Maximum Marks-100

Time:3 Hours

Course Contents:

- Unit-I Nature, scope and content. Definition of urban and rural settlements: merits and limitations.
- Unit-II Settlement site and structure: internal morphology, external form; field patterns, functions, house-types.
- Unit-III Spatial Organization: size, spacing and hierarchy of settlements; emergence and characteristics of urban settlements.
- Unit-IV Settlement- Environment relationship, global and regional pattern; policies and programmes.
- Unit-V Salient features of human settlements in India.

**Note :** The paper has five units. There will be TEN questions in all, at least two from each unit. The candidates are required to attempt FIVE questions, selecting at least one question from each unit. All questions carry equal marks.

Suggested Readings

1. Bose A.: India's Urbanization 1947-2000 Tata McGraw Hill, New Delhi.
2. Carter H.: The Study of Urban Geography, Edward Arnold, London, 1972.
3. Chisholm, M.: Rural Settlement and Land Use, Hutchinson, London, 1970.
4. Clout, R.D.: Rural Geography, Pergamon Press, London, 1970.
5. Deshpande, C.D.: Shetare, Continental Prakashan, Pune, 1983 (Marathi).
6. Dickinson, R.E. City, Region and Regionalism, Kegan Paul, Trench, Trubner & Co., London, 1947.
7. Johnson, J.H.: Urban Geography: An Introductory Analysis, Pergamon Press, London, 1967.
8. Krishan G.: Nagar Bhoogol, Punjab State University Text Book Board, Chandigarh (Punjab).
9. Mayer, H.M. & Kohn, C.F.(eds.): Readings in Urban Geography, Chicago Printing Press, Chicago, 1967.
10. Misra, H.N.(ed.): Rural Geography, Heritage Publishers, New Delhi, 1987.
11. Money, D.C.: Patterns of Settlements, Evan Brothers, London, 1972.
12. Mukerji, R.K.: Man and His Habitation, Popular Books, Bombay, 1968.
13. Nangia S.: Delhi Metropolitan Region, Rajesh Publications, 1976.
14. Perpillou, A.: Human Geography, Longmans, London, 1966.
15. Singh, R.L.: Readings in Rural Settlement Geography, Banaras Hindu University, Department of Geography, Varanasi, 1972.
16. Turner, Roy (ed.): India's Urban Future, Oxford University Press, Bombay, 1962.

**Course Contents:**

- Unit-I The Earth: shape, size, areas and great circles-coordinate system: plane and spherical, latitude and longitude, direction and distance. Map design and layout concept of base map.
- Unit-II Mapping: Quantitative, Qualitative-print, line, area and volume-size, location, and direction of symbols-selection of class intervals and choropleth and isopleth maps.
- Unit-III Map projections: scale and projection-deformation. Classification and choice of map projections-properties, merits and demerits of Cylindrical, Conical, Zenithal and Conventional projections. Projections suitable for maps of India.
- Unit-IV Technology and its application in Cartography: aerial photos and satellite data, generating cartographic data from aerial photographs and remote sensing data products application of computer in cartography-cartography and GIS.
- Unit-V Basics of map-making: compilation: determination of scale-generalization: elements, controls, simplification, symbolization: Kinds of symbols-visual perceptions.

**Field work**

- (i) Choose an area near to the Department of Geography and prepare base maps of the area. The base map should include the characteristic landforms, drainage and broad land use, settlements and transport line.
- (ii) Conduct a field visit of the area to acquire knowledge about interpretation of the features depicted on the base map and identification of the features mentioned above as one observes on the ground.
- (iii) Consolidate the salient features in the form of brief write up.

**Suggested Reading:**

1. Jeffreys, S and John E: Geographic Information Systems-An Introduction, Prentice Hall, New Jersey, 1990.
2. Misra R.P. and Ramesh A: Fundamentals of Cartography. Concept, New Delhi, 1989.
3. Monkhouse, F.J. Maps and Diagrams, Methuen, London, 1967.
4. Nag P. Thematic Cartography and Remote Sensing. Concept, New Delhi.
5. Raize. I. Principals of Cartography, McGraw Hill, New York, 1982.
6. Robinson A.H. and Sale R.D. Elements of Cartography John Wiley, New Jersey, 1953.

Paper-IV

**REGIONAL GEOGRAPHY OF THE WORLD**  
(Natural and Cultural Regions)

Maximum Marks-100  
Time-3 hours

**Course Contents:**

- Unit-I Basics of regionalisation- Determinants and world regions
- Unit-II Natural and Cultural Regions: Physical Resources
- Unit-III Natural and Cultural regions: Human Resources
- Unit-IV Natural and Cultural regions: Economic Resources
- Unit-V Regions in globalized world with special reference to environmental problems arising out of development and under development.

**Suggested Readings**

1. Blij H.Muller, O: Geography, Regions and Concepts: John Wiley, New York, 1993.
2. Don R.H. (ed.): Essentials of Geography and Development McMillan, New York, 1980.
3. English, Paul Ward & Miller J.A. World Regional Geography: A Question of Place, John Wiley, New York, 1989.
4. Jackson, R.H and Hudman L.E.: World Regional Geography: Issues for today. John Wiley, New York, 1991.