

**GEOGRAPHY****MA/MSc. II**

In MA/MSc. final year of geography there shall be four theory paper carrying 100 marks each and one practical cum field work carrying 100 marks. First and second papers are compulsory and third & fourth paper's has following group of papers. Students have to choose anyone of them. Students have to pass theory and practical separately. Passing marks in theory and practical is 36%.

Paper I Regional Geography of India 100 marks

Paper II Climatology and Oceanology 100 marks

**Third paper-select any one out of following :**

Paper IIIA Agricultural Geography 100 marks

Paper IIIB Bio-Geography 100 marks

Paper IIIC Commerical Geography 100 marks

Paper IIID Natural Resource management 100 marks

Paper IIIE Social Geography 100 marks

~~Paper III F Remote Sensing and Photogrammetry 100 marks~~

**Fourth paper-select any one out of the following :**

Paper IVA Geography of Rural Settlements 100 marks

Paper IVB Geography of Tourism 100 marks

Paper IVC Political Geography 100 marks

Paper IVD Urban Geography 100 marks

Paper IVE Transport Geography 100 marks

~~Paper IV F Geographical Information System 100 marks~~

**Practical** 100 marks

Practical based on papers opted as III & IV having 50 marks each. Student may submit idssertation in place of Third or fourth paper's practical. Evaluation of dissertation will be done by extenal and internal examinees.

## Paper I — Regional Geography of India

- A. Geology and Physiography - Origin of Himalaya, Origin of River system, Delimitation and characteristics of Physiography, Climatic, Agro-climatic Regions, soil regions and Natural Vegetation Regions.
- B. Population and Resource - Spatial aspects of growth and distribution of population, population regions, population problems, mineral resource regions, Power resources regions, population resource region, pattern of resource utilization.
- C. Economic Regionalization - Agriculture, development, Impact of Green Revolution, Agricultural Regions, Industrial Policies and Trend of Industrialization, Industrial Regions, Industrial complexes, Problems and Prospects of Industrially Backward regions.
- D. Infrastructure and Development - Transport Network - Rail, Road, Inland waterways, Marketing, Banking in Indian Economy, Regional development policies in five-year plans, Impact of Globalization, Regional Pattern of Development their causes and consequences.
- E. Geographical Regionalization of India - Regionalization by state, space and R.L. Singh, Geographical conditions, resource base, pattern of economic development, problems and prospects of Kashmir Himalaya, Rajasthan Plain, Middle Ganga Valley, Gujrat region, Malwa Plateau and Bramhmapura valley.

## SUGGESTED READING :-

1. Centre for Science & Environment (1998) State of India's Environment, New Delhi.
2. Deshpande C.D. India a Regional Interpretation ICSSR & Northern Book Centre, 1992.
3. Misra, J.P. : Bharat Ka Bhoogol, University Road Faizabad.
4. Kundu A Raza Mooin : Indian Economy : the Regional Dimensions, Spectrum Publishers, New Delhi, 1982.
5. Robins Francis : The Cambridge Encyclopedia of India Pakistan, Bangladesh, Nepal, Bhutan, & Maldives, Cambridge University Press London, 1989.
6. Singh R L (ed) : India A regional Geography, National geographical Society, India, Varansi, 1971
7. Spate OHK & A.T. Leamonth- India & Pakistan Methuen, London, 1967.
8. Taha R. & Gopal Krishna, Emerging India Reprinted by Rawat Publications, Jaipur, 1986.



**GEOGRAPHY**  
**MA/MSc. Part II**

**PAPER II CLIMATOLOGY & OCEANOGRAPHY CLIMATOLOGY**

**Unit 1 :** Nature and scope of climatology and its relationship with Meteorology. Composition, mass and structure of the atmosphere.

Insolation heat balance of the earth, green house effect; vertical and horizontal distribution of temperature. Atmospheric motion : Forces controlling motion of air distribution and vorticity, local winds jet stream, general circulation in the atmosphere;

Atmospheric moisture : Humidity, evaporation, condensation, precipitation : formation, types, acid rain, world pattern of precipitation.

**Unit 2 :** Tropical, temperate and high latitude weather systems-concept of air masses and atmospheric disturbance, ocean atmospheric interaction- El Nino, southern Oscillation (ENSO) and La Nina, monsoon winds, Norwesters and cyclones Tropical Temperate Phenomena, climate of India and its controls: western disturbances.

**Unit 3 :** Climatic classification of Koppen, and thornthwaite. Major climates of the world Tropical, Temperate, Desert and mountain climate.

**Unit 4 :** Climatic changes : Evidences, Possible causes; global warming, environmental impacts and society's response.

**Unit 5 :** Applied climatology : Data Collection, Archiving, accessing, interpretation and generation of climatic information specially for water balance studies. Soils, agriculture activities, house types and health.

**OCEANOGRAPHY**

**Unit 1 :** nature and scope of the oceanography-History of oceanography; distribution of land and water, major features of ocean basins; continental margin and deep-ocean basins : earth structure and plate tectonics; marine sediments.

**Unit 2 :** Physical and chemical properties of sea water, interlink between atmospheric circulation and circulation patterns in the oceans, surface currents; thermohaline, wave and tides.

**Unit 3 :** Marine bio-logical environment : bio-geochemical cycles in the ocean, biozones, types of Organism : plankton, Nekton and benthos, food mineral resources of the sea.

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**Unit 4 :** Major Marine Enviroments : Costal : estuaries, deltas, barrier island, rocky coasts-Open : reefs, continental-shelf, continental-slope and deep, pelagic environment and floor of the ocean Basins.

**Unit 5 :** impact of human on the marine environment. Law of the Sea: exclusive economic zone, marine deposit and formation of coral Reefs.

**SUGGESTED READING :-**

**Climatology :-**

1. Barry, R. G. and Atmosphere, Weather Climate  
Chorley, P.J. Routledge, London and New York 1998.
2. Critchfield, J. H. General Climatology Prentice Hall India New  
Delhi, 1993.
3. Das P. K. Monsoons, National Book trust, New Delhi, 1987.
4. Fein J. S. and Moosoons Wiley Interscience 1987.  
Stephens, P. N.
5. India Met. Deptt. Climatology Tables of Observatories in India.  
Govt, of India 1968.
6. Lal D. S. Climatology. Chaitanya Publication,  
Allahabad, 1986.
7. Lydolph, P.E. The climate of Earth. Rawaman, 1985.
8. Menon P.A. Our Weather, N. B. T., New Delhi, 1989.
9. Peterson S. Introduction to Meteorology, McGraw Hill book,  
London, 1969.
10. Robinson, P. J. & Contemporary Climatology, Henlow, 1999.  
Henderson S.
11. Thomposn, R.D. & Applied Climatology, Principles and  
Perry, A (ed.) Practice, Routledge, London, 1997.

**Oceanography :-**

1. Davis Richard J. A. "Oceanography- An Introduction to the marine  
Environment" Wm. C. Brown Lowa. 1986.
2. Duxbury, C.A. and An Introduction to the World's oceans -  
Duxbury, B. C. Brown, Lowa 2nd ed. 1996.
3. Garrison, T. "Oceanography : An Introduction to Marine  
Science Books/Cole, Pacific Grove, USA,  
2001.
4. Gross, M. Grant Oceanography, A view of the Earth, Prentice  
Hall Inc. New Jersey, 1987.



5. King, C. A. M. Oceanography for Oceanographers 1962.
6. Sharma R. C. "The Oceans" Rajesh N. Delhi 1962.
7. Ummerkuty, A.N.P. Science of the Oceans and Human life, NBT, New Delhi 1985.

MA/MSc.

**PAPER III (A) AGRICULTURAL GEOGRAPHY**

**Course Contents :**

- Unit - I :** Nature, scope, significance and development of agricultural geography. Approaches to the study of agricultural geography : Commodity, systematic and regional and systems. Origin and dispersal of agriculture. Sources of agricultural data.
- 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. Selected agricultural concepts and their measurements; cropping pattern, crop concentration, intensity of cropping, degree of commercialisation, diversification and specialization, efficiency and productivity, crop combination regions and agricultural development. Green Revolution- its impact and consequences.
- Unit - III** Theories of agricultural location based on several multi-dimensional factors : Von Thunen's theory of agricultural location and its recent modifications; Whittlesey's classification of agricultural regions, land use and land capability.
- Unit - IV** Agricultural in India- Land use and shifting cropping pattern. Regional pattern of productivity in India. Green Revolution, White Revolution, Food deficit and food surplus regions; nutritional index. Specific problems in Indian agriculture and their management and planning. Agricultural in Policy in India.
- Unit - V** Contemporary issues : Food, nutrition and hunger, food security, drought and food security, food aid programmes, environmental degradation, role of irrigation fertilizers, insecticides and pesticides, technological know-how. Employment in the agricultural sector : landless labourers; woman, children : occupational health and agricultural activities.

**SUGGESTED READING :-**

1. Bayliss Smith, T.P. The Ecology of Agricultural Systems. Cambridge University Press, London, 1987.
2. Berry, B. J. L. et. al. The Geography of Economic Systems. Prentice Hall, New York, 1976.

3. Brown, L.R. The Changing World Food Prospects- The Mineties and Beyond. World Watch Institute, Washington D. C., 1990.
4. Dyson, T. Population and Food- Global Trends and future Prospects. Routledge, London, 1996.
5. Gregor, H. P. Geography of Agriculture. Prentice Hall, New York, 1970.
6. Grigg, D. B. The agricultural Systems of the World. Cambridge University Press, New York, 1974.
7. Hartshorn, T. N. & Alexander, J. W. Economic Geography. Prentice Hall, New Delhi 1988.
8. Mannion. A. M. Agriculture and Environment Change. John Wiley, London, 1995.
9. Morgan W. B. and Norton , R. J. C. Agricultural Geography, Mathuen, London, 1971.
10. Morgan, W. B. Agriculture in the Third World- A Spatial Analysis. Westview Press, Boulder, 1978.
11. Sauer, C. O. Agricultural Origins and dispersals. M. I. T. Press, Mass, U.S.A., 1969.
12. Singh, J. and Dhillon, S. S. Agricultural Geography, Tata McGraw Hill Pub., New Delhi, 1988.
13. Tarrant, J. R. Agricultural Geogaphy. Wiley, New York, 1974.

Pratical :- (A) Survey and mapping of agricultural land use and interpetation.

1. Land use analysis of village in relation to soil and land capabeility.
2. Agricultural and use planning of an area.
3. Preparation and interpretation of crop combination maps.
4. Prepration and interpretation of agricultural efficiency maps

35 marks

B Record & Viva Voice

15 marks

MA/MSc.

Paper III (B)

BIOGEOGRAPHY

Course Contents :

Unit -I : Scope and development of Biogeography. Enviroment, Habitat and Plant-animal association, biome types.

Unit -II : Elements of plant geography, distnbution of forests and major communities. Plant successions in newly formed landforms. Examples from flood plains and glacail fore fields.



**Unit -III :** Zoogeography and its Environmental Relationship.

**Unit-IV :** Palaeobotanical and Palaeo Climatological records of environmental change in India.

**Unit-V :** National Forest Policy of India. Conservation of Bio Resources.

**SUGGESTED READINGS**

1. Agarwal, D.P. Man and Enviroment in India Through Ages, Books, 1992.
2. Bradshaw, M. J. Earth and Living Planet, ELBS. London, 1979.
3. Cox, C.D. and Moore, P. D. Biogeography : An Ecological and Evolutionary Approach 5th edn. Blackwell, 1993.
4. Garu, R. Environment and Ecology of Early Man in Northern Indian R.B. Publication Corporation, 1987.
5. Hoyt, J.B. Man and the Earth, Prentice Hall, U.S.A. 1992.
6. Huggett. R.J. Fundamentals of Biogeography. Routledge, U.S.A. 1988.

- Practical-A.**
1. A case study of biome
  2. A study of plant successions in newly formed land forms.
  3. Study of national Parks. 15 marks
- B. Record & viva 15 marks**

**M.A M.Sc. II**

**Paper III.(c) COMMERCIAL GEOGRAPHY**

**Course Contents :**

**Unit-I :** Nature, scope, significance and development of commercial geography. Nature of economic activities : primary, tertiary and their contributions in the national economy. Approaches to the study of commercial geography.

**Unit-II :** Development of marketing : theoritil frame Central Place theory of Christaller and Losch; Delimitation of market classification of markets-permanent, fairs, retail, wholesale, formal and informal markets, modern markets functional relationship hierarchy of market centres, market areas, consumer behaviour, travel pattern.

**Unit-III :** Marketing structure-regulated and rural markets, nature of inter-urban and intra urban marketing. Marketing and development-role of market centres in regional and commercial development. Planning for the development of modern market places.

**Unit - VI :** Significance of trade its role in world and regional economy. History of trade, type of trade flow of commodities, international trade, trading zones: Europe, North American, Latin America, Africa, Australia, Asia. Flow of commodities in economic blocks: EU, ASEAN, EFTA, LAFTA and SAARC.

**Unit - V :** Indian Trade : Contemporary restructuring of global economy and its influence on Indian trade, World Trade Organization, impact on India agriculture, industry and informal sector, recent trends in Indian trade, critical evaluation of trade policy of India.

**SUGGESTED READINGS :-**

1. Berry, B.J.L. Geography of Market Centres and Retail Distribution, Prentice Hall, Englewood cliffs, N.J. 1967.
2. Davis R. L. Marketing Geography, Mehtuen, London, 1976.
3. Dixit R.S. Market Centres and their Spatial development in the Umland of Kanpur Allahabad, 1984.
4. Garnier, B.J. and Delobez A. Geography of Marketing, Longman, London, 1977.
5. Losch A. Economics of Location, Yale University Press, New Heaven, 1954.
6. NCAER. Market Towns and Spatial Development in India, NCAER, New Delhi, 1983.
7. Saxena, H.M. Geography of Marketing-Concepts and Methods, New Delhi, 1984.
8. Scott, P. Geography and Retailing Hutchinson, London.

**Practicals :-** A. I. Survey and mapping of Rural markets  
 II. Study of the Marketing Structure of an Indian market.  
 III. Planning of an Modern marketplaces. 35 marks  
 B. Record & viva 15 marks

M.A/M.Sc.

**Paper III-(D) NATURAL RESOURCES MANAGEMENT**

**Course Contents :**

- Unit-I :** Introduction : Concept, models and approaches to natural resource management, problems of resource utilization, population pressure, development and resource use, natural hazards and risk management.
- Unit-II :** Use and misuse of Resources, Global and Indian scenario, historical background and future prospects of various resources.



Soil water-minerals forests

**Unit-III :** Conservation and management of resources . Meaning, principles, Philosophy and approaches to conservation; resource conservation and management methods

**Unit-IV :** Resource appraisal and policy making appraisal of Land resources, geophysical, geochemical, geobotanical use of Gis and remote sensing in resource appraisal, institutional arrangements and policy models towards better management and conservation of resources.

**Unit-V :** Resource Development Sustainable resource management concept, methods, dimension and sustainable system; integrated resource development and its application.

**Selected Readings-**

1. Adams, W.M. Green Development : Environment and Sustainability in the third World. Routledge & Chapman Hall, New York, 1990
2. Granfelt, T.R. Managing the Globalized Environment, J & L. Composition Ltd. New York, 1999.
3. Holechek, J.L. et. al. Natural Resources : Ecology Economics & Policy, Prentice Hall, New, Jersey, 2000.
4. Hooja, R. & Joshi, R. Desert, Drought and Development, Studies in resource Management and sustainability, Rawat Publication, Jaipur 1984.
5. Howard, M.C. (ed), Asia's Enviromental Crisis, Westview Press, Prouldar, 1993.
6. Kates, R. W. & Burton, I. (eds) Geography, Resources and Environment, Vol I & II, University of Chicago Press, Chicago, 1936.
7. McLaren, D.J. and Skinnet, B.J. (eds) Resources and World Development, John Wiley & Sons, New York, 1986.
8. Newson, M. D. Land, Water, & Development : River Basin systems & Management, Routledge London 1991.
9. Ownen, S & Owens, P.L Environment Resources & Conservation, Cambridge University Press, New York, 1991.
10. Peckford, John et. al. (ed.) : 1994, Water, Sanitation, Environment & Development, IT Publication, London, 1994.
11. Rees, J Natural Resources : Allocation, Economics and policy, Methuen, London 1988
12. Redclift, IV Sustainable Development . Exploring the

13. Simmons, I.G. Contradiction, : Methuen, London, 1987.  
Earth, Air Water: Resources and Environment in Late 20th Century Edward Arnold, New York, 1991.
14. Thoman, Alan et. al. Environmental Politics & NGO Influence  
Routledge, London, 2001.

**Practicals - A.** I Representation of population resource data in selected region, population potential maps.  
II Study of Water/soil resource management.  
III Resource Management of a specified area.

35 marks

**B. Record & Viva**

15 marks

**M.A/M.Sc. II**

**PAPER III (E) SOCIAL GEOGRAPHY**

**Course Contents :**

- Unit -I :** Nature and development of social geography; philosophical bases of social geography-Positivists; structuralist; radical humanist, post-modern and post structuralist; social geography in the realm of social sciences.
- Unit- II :** Space and society : understanding society and its structure and process : geographical bases of social formations; contribution of social geography to social theory; power and space.
- Unit- III :** Towards a social geography of India; Social differentiation and region formation; evolution of socio-cultural regions of India; bases of social region formation; role of race, caste, ethnicity, religion and languages; Indian unity and diversity; social transformation and change in India.
- Unit- IV :** Social well-being Concepts of social well-being, physical quality of life, Human development; measurement of human development with social, economic and environmental indicators; Rural urban deprivation in India with Respect to health care; education and shelter; deprivation and discrimination issues relating to women and under privileged groups; Patterns and bases of rural and urban society.
- Unit- V :** Public policy and social planning in india: review of Five year Plans and area plans towards social policy in India; Strategies and environmental impact assessment of development projects.

**Suggested Readings**



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1. Ahmad, Aijazuddin, Social Geography, Rawat Publication, New Delhi, 1999.
2. Ed 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. Gregory, D and J. Larry, (eds.) Social relations and spatial structures. McMillan. 1985.
6. Haq. Mahbubul Reflections on Human Development, Oxford University Press, New Delhi.
7. Maloney, Clarence People of South Asia, Winston, New York, 1974.
8. Planning Commission, Government of India; Report on development of Tribal areas, 1981.
9. Rao, M.S.A. : Urban Sociology in India. Orient longman, 1970.
10. Schwartzberg Joseph; An Historical Atlas of South Asia, University of Chicago Press, Chicago, 1978.
11. Sen, Amartya & Dreze Jean, Indian Development : Selected Regional Perspectives, Oxford University Press, 1996.
12. Smith, David Geography : A Welfare Approach, Edward Arnold, London, 1977.
13. Sopher, David. An Exploration of India, Cornell University Press, 1980.
14. Subba Rao, Personality of India; Pre and Proto Historic foundation of India and Pakistan, M.S. University Baroda, Vadodara, 1958.

Practical- A. . (I) A case study of social groups (a) tribal (b) caste (c) religious.

(II) A study of planning model for social transformation.

(iii) Planning social formation of village. 35 marks

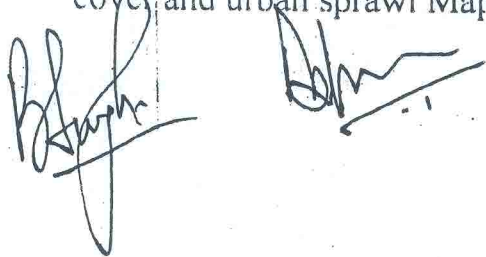
B. Record & Viva-Voce

15 marks

M. Sc. / ~~OPTIONAL PAPER~~ M.A. (FINAL)

Paper III - (F) REMOTE SENSING AND PHOTOGRAMMETRY

- A. Remote Sensing: Definition, scope and development of the techniques in India and abroad; Fundamentals of Remote sensing and photogrammetry ; Nature of electromagnetic radiation ( EMR); Ranges of electromagnetic radiation for Remote sensing; Types of Remote sensing data and their applications; Advantage and disadvantages of Remote sensing data.
- B. Platforms and sensors: Main characteristics of satellites and their images- Landsat, ERTS, SPOT, IRS, ICONOS; Data acquisitions and processing;
- C. Aerial Photography: History of Aerial and space photography; Aerial camera; Typology of Aerial photographs; Photographic mosaic; Basic information for Aerial photography; Photographic missions; Operational procedures; Output of photography; Procedure of procurement of Aerial photograph in India.
- D. Photogrammetry and Image Interpretation- Geometry of photographs ; Tilt, Swing, Image displacement; Stereoscopic view, Mosaicing; Rectification; Fundamentals of image interpretation; Elements of image interpretation, keys, stages and procedures.
- E. Applications of remote sensing: Geology, Geomorphology and Structural mapping; Natural hazards management; Land resource management, Soil and Waste land mapping, Wet land mapping and management; Land use, land cover and urban sprawl Mapping; Water resources mapping.





## PRACTICAL

### A.

- i. Stereovision test; Test orientation of photo under pocket and mirror stereoscope; point transfer to find out flight line, match line, swing on the photographs, construction of stereogram, triplet and mosaic, indexing of photo on the map, photo scale, distance and height measurement, making of base map with the help of photographs.
- ii. Land use / land cover identification on Aerial photographs, Description and identification of objects, Interpretation of IRS satellite imagery (FCC) for extraction of thematic information.
- iii. Visual Image Interpretation, Field check, ground truth collection and mapping of land resources in any selected area. 35 marks

### B. Record and viva

15 marks

### SUGGESTED READING:

1. Lillesand, T.M and Kiefer, R.W. 1994. *Remote sensing and Image interpretation*, John Wiley and Sons Canada.
2. Floyd, F.Sabins, J.R., 1986. *Remote Sensing: Principles and Interpretation*. W.H.Freeman and Company, San Francisco.
3. Robert.A.Schowengerdt, 1996. *Remote sensing: Models and Methods for image processing*.
4. Agrawal, S.C. and Pradheep K.Garg, 2000. *Text Book on Remote sensing in natural resources monitoring and Management*, Wheeler Pub. New Delhi.
5. Chauniyal, D. 2004. *Remote Sensing and Geographic Information System (Hindi)*. Sharda Pustak Bhawan, Allahabad.
6. Avery, T.E. and G.I. Berlin. 1992. *Fundamentals of Remote Sensing and Air photo Interpretation*, Macmillan pub. New York.



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**M.A./M.Sc. II**

**PAPER IV (A) GEOGRAPHY OF RURAL SETTLEMENTS**

**Course Contents :**

- Unit - I :** Nature, scope, significance and development of settlement geography. Approaches to rural settlement geography; human settlement as a system. Rural-urban continuum.  
Histogenesis of rural settlements : spatio-temporal dimensions and sequent occupance.  
Definition and characteristics of rural settlements in the fringe areas and sparsely settled areas.  
distribution of Rural settlements : size and spacing of rural settlements.
- Unit -II :** Types, forms and Patterns of rural settlements :cause and effect; Functional classification of rural settlements; Central places and rural service centres: their nature, hierarchy and functions; rural-urban fringe-structure, characteristics and functions.
- Unit -III :** Social issues in rural settlements: poverty, housing and shelter, deprivation and inequality; empowerment of women, health care, Rural-urban interaction.
- Unit-IV :** Environmental issues in rural settlements : access to environmental infrastructure: water supply, sanitation, drainage, occupational health hazards.
- Unit - V :** Cultural landscape elements in rural settlements in different geographical environments with special reference to India: House types and field patterns Origin, evolution, size, socio-spatial structure of Indian villages. Rural development planning in India; Integrated Rural Development.

**Suggested Readings**

1. Alam, S.M.et. al. Settlement System of India, Oxford and IBH Publication Co, New Delhi, 1982.
2. Brock, J.O.M. and Welb, J.W. Geography of Mankind. McGraw Hill, London, 1978.
3. Chisholm, M. Rural Settlements and Land Use, John Wiley, New York, 1967.
4. Clout, H.D. Rural Geography, Pergamon, Oxford, 1977.
5. Daniel, P. and Hopkinson, M. The geography of Settlement. Oliver & Boyd, Edinburgh, 1936.
6. Grover, N. Rural Settlement - A Cultural Geographical Analysis, Inter-india Publication, Delhi, 1985.



7. Hudson, F.S. A Geography of Settlements, MacDonald & Evans., New York, 1976.
8. Mitra, A. Reporton House Types and Village Settlement Patterns in India. Publication Development, Govt. Of India, Delhi 1960.
9. Ramchandran, H. Village Clusters and Rural Development, Concept Publication, New Delhi, 1985.
10. Rao, E.N. Strategy for Integrated Rural Development. B.R. Publication Cor., Delhi, 1986.
11. Rapport, A. House Form and Culture, Prentice Hall, New Jersey, 1969.
12. Sen, L.K. (ed.) Readings in Micro-level Planning and Rural Growth Centres. National Institute of Community Development, Hyderabad, 1972.
13. Srinivas, M.N. Village India, Asia Publication House, Bombay, 1968.
14. Wanmali, S. Service Centres in Rural India, B.R. Publication Cor., New Delhi, 1983.

- Practicals—A. (i) Survey and maping of Rural Settlements.  
(ii) Analysis of Rural settlements Distribution by scater diagram.  
(iii) Study of the Morphology on an Indian Village.  
(iv) Planning of an Indian Village 35  
B. Record & Viva -Voice 15

M.A./M.Sc. Elective

GEOGRAPHY OF TOURISM

PAPER IV (B) COURSE CONTENTS :

**Unit-1 :** Basics of tourism; Definition of tourism; Factors influencing tourism: historical, natural, socio-cultural and economic; motivating factors for pilgrimages: leisure, recreation; elements of tourisum, tourism as an industry.

**Unit -II :** Geography of tourism :- its spatial affinity; areal and locational dimensions comprising physical, cultural, historical and enconmic; Tourism types: cultural, eco-ethno-coastal and adventure tourism, national and international tourism; globalization and tourism.

**Unit - III :** Indian Tourism ; regional dimensions of tourist attraction; evolution of tourism, promotion of tourism.

**Unit- IV :** Infrastructure and support system- accommodation and

supplementary accommodation; other facilities and amenities;  
Tourism circuits-short and longer detraction-Agencies and  
intermediaries- Indian hotel industry.

**Unit- V : Impacts of tourism:** physical, economic and social and  
perceptual positive and negative impacts; Environmental laws  
and tourism-Current trends, spatial patterns and recent changes;  
Role of foreign capital & Impact of globalization on tourism.

**Practical-Project report** on relevant topics such as impact of  
tourism on Garhwal Himalaya, Dal Lake, Goa and North East India,  
Mathura-Agra impact on historic city. 50 marks

#### **Selected Readings**

1. Bhatia A.K.      Tourism Development : Principles and Practices. Sterling Publishers, New Delhi 1996.
2. Bhatiya, A.K.      International Tourism-Fundamental and Practices, Sterling, New Delhi. (1991).
3. Chandra R.H.      Hill Tourism: Planning and Development, Kanishka Publishers, New Delhi, 1998.
4. Hunter C and Green H      Tourism and the Environment : A sustainable Relationship, Routledge, London, 1995.
5. Inskeep. E      Tourism Planning : An Integrated and Sustainable Development Approach, Van Nostrand and Reinhold, New York, 1991.
6. Kaul R.K.      Dynamics of Tourism & recreation. Inter-India, New Delhi. (1985).
7. Kaur J.      Himalayan Pilgrimages & New Tourism Himalayan Books, New Delhi, 1985.
8. Lea J.      Tourism and Development in the Third World, Routledge, London, 1988.
9. Milton D.      Geography of World Tourism-Prentice. Hall, New York, 1993.
10. Pearce D.G.      Tourism To-day : A Geographical Analysis, Harlow, Longman, 1987.
11. Robinson, H.A.      Geography of Tourism. Macdonald and Evans, London, 1996.
12. Sharma, J.K. (ed.)      Tourism Planning and Development- A new perspective, Kanishka Publishers, New Delhi, 2000.
13. Shaw G. and Williams A.M.      Critical Issues in Tourism- A Geographical Perspective, Oxford : blackwell, 1994.
14. Sinha P.C. (ed.)      Tourism Impact Assessment, Anmol Publishers, New Delhi, 1998.
15. Theobald W.(ed.)      Global Tourism: The Next decade, Oxford, Butterworth, Heinemann, Oxford, 1994.
16. Voase R.      Tourism : The Human Perspective Hodder & Stoughton, London, 1995.
17. Williams A.M. and Shaw G. (eds.)      Tourism and Economic Development- Western European Experiences, Belhaven, London.



## PAPER IV (C) POLITICAL GEOGRAPHY

## Course Contents :

Unit -I : Nature, scope, subject, matter and recent development in political geography; approaches to study; major schools of thought.

Unit- II : Geographic Elements and the State : Physical Elements; Human elements; Economic elements; Political geography and environment interface.

Unit- III : Themes in Political Geography : State, Notion, Nation-State and Nation-building, Frontiers and boundaries, Colonialism, decolonization, Neocolonialism, Federalism and other forms of governance. The changing patterns of World Powers Perspectives on core-periphery concept, Conflicts and cooperation.

Unit- IV : Geopolitical significance of Indian Ocean: Political geography of any one of the following regions: SAARC Region, South-East Asia, West Asia, East Asia,

Note : The region may also be selected from the regions not referred to above, depending on the expertise available with the Department/University.

Unit -V : Political geography of contemporary India with special reference to : The changing political map of India, Unity-diversity: centripetal & centrifugal forces; stability & instability, Intersated issues (like water disputes & riparian claims) and conflict resolutions insurgency in border states; Emergence of New States; Federal India: Unity in Diversity.

## Suggested Readings

1. Alexander, L.M. World Political Patterns Ran McNally, Chicago, 1963.
2. De Blij, H.J. and Glassner, Martin Systematic Political Geography, John Wiley, New York, 1968.
3. Dikshit, R.D. Political Geography : A contemporary Perspective. Tata McGraw Hill, New Delhi, 1996.
4. Dikshit, R.D. Political geography : A Century of progress, Sage, new Delhi, 1999.
5. Sukhwai, B.L. Modern Political Geography of India Sterling Publishers, New Delhi, 1968.
6. Taylor, Peter; Political Geography Longman, London, 1995.
7. Fisher, Charles A. Essays in Political Geography, Methuen, London, 1968.
8. Pounds N.J.G. : Political Geography. McGraw Hill, New York, 1972.
9. John R. Short : An introduction to Political Geography. Routledge, London, 1982.
10. Moddie, A.E. : Geography Behind Politics Hutchinson, London, Latest edition.
11. Prescott. J.R.V. : The Geography of Frontiers and Boundaries Aldine, Chicago.
12. Deshpande C.D. India-A Regional Interpretation Northern Book Centre, New Delhi, 1992.
13. Panikkar K.M. Geographical Factors in Indian History : 2 vols. Asia Publishing House, Bombay, 1959.

Pedagogy-Students may be encouraged to collect clippings from newspapers on various topics included in the syllabus. They may be involved in discussions on the emerging political issues and attempt to provide geographical interpretation.

Practical-A- 1. Cartographic representation of India's global position and its implication under different global strategic schemes.

2. Evaluation of India. State Boundaries Since the British and present.
3. Functions of "internal" political boundaries and their implication on the landscape.

4. India and the power Blocks. 35 marks

B. Record and Viva-voce 15 marks

## PAPER IV (D) URBAN GEOGRAPHY

## Course Contents :

Unit-I : Nature and scope of urban geography, different approaches and recent trends in urban geography, attributes of urban places during ancient, medieval and modern period; origin and growth of urban settlements : bases and process of urbanization and development : classification of urban settlements on the basis of size and function; urban systems : Urban growth and theories. Central Place Theory of Christaller and Losch; Theories of Peroux and Boudeville; contributions of Indian scholars to the studies of urban settlements.

Unit - II : Urban economic base : Basic and non-basic functions, input-output models, concept of dualism; colonial and postcolonial structure, metropolitan city and changing urban function; role of informal sector in urban economy.

Unit -III : Organization of urban space : urban morphology and land use structure : city core, commercial, industrial and residential areas, cores-country variations; city-region relations, modern urban landscape; morphology of urban settlements and its comparison with western urban settlements; urban expansion.

umland and periphery

Unit -IV : Contemporary urban issues : urban poverty, urban renewal, urban sprawl, slums; transportation, housing, urban infrastructure; urban finance, environmental pollution : air, water, noise, solid waste, urban crime, issues of environmental health.

Unit -V : Urban policy and planning : development of small and medium sized towns, planning for new wards, city planning, green belts, garden cities, urban policy; contemporary issues in urban planning; globalization and urban planning in the Third World, urban land use planning.

## Selected Readings

1. Alam, S.M. Hyderabad- Secunderabad Twin Cities Asia Publishing House, Bombay, 1964.
2. Berry, B.J.L. and Horton F.F. Geographic Perspectives on Urban Systems, Prentice Hall, Englewood Cliffs, New Jersey, 1970.
3. Carter The Study of Urban Geography, Edward Arnold Publishers, London, 1972.
4. Chorley, R.J.O., Models in Geography, Methuen, London, 1966.
5. Haggett P. (ed.)
5. Dickinson, R.E. City and Region, Routledge, London, 1964.
6. Dwyer, D.J.(ed.) The City as a Centre of change in Asia, University of Hong Kong Press, Hongkong, 1971.
7. Gibbs J.P. Urban Research Methods D. Van Nostrand Co. Inc. Princeton, New Jersey, 1961.
8. Hall P. Urban and Regional Planning, Routledge, London, 1992.
9. Hauser, Philip M. & The Study of Urbanisation, Wiley, New Schmore Leo F.(ed.)York,1965.
10. James, P.E. and American Geography, Inventory and Jones C.F.(eds.) Prospect, Syracuse University Press, Syracuse, 1954.
11. Kundu, A. Urban Development and Urban Research in India, Khanna Publication, 1992.
12. Meyor, H.M. Readings in Urban Geography, University of Chicago Press, 1965.
13. Kohn C.F. (eds.)
13. Mumford, L. Culture of Cities, McMillan & Co., London, 1958.
14. Nangia, Sudesh Delhi Metropolitan Region : A study in settlement geography, Rajesh Publication, 1976.
15. Rao V.L.S.P. Urbanisation in India : Spatial Dimensions. Concept Publishing Co. New Delhi Concept, New Delhi.

## Practicals-A.(I) Interpretation of Functional Morphology of Towns.

(II) Field study and mapping of Urban land use of a sector in a city.

(III) delimitation of Unland/service area of a town.

(IV) Study of town plans 35 marks

B. Record & Viva

15



## PAPER IV (E) GEOGRAPHY OF TRANSPORT

## Course Contents :

- Unit-I :** Nature, scope, significance and development of Transport Geography. Factors associated with the development of transport system : physical, economic, social, cultural, and institutional; economic, technological and regional development and transport development.
- Unit -II :** Characteristics and relative significance of different modes of transport : railways, roads airways and waterways, pipelines etc.
- Unit -III :** Structure- Accessibility and Flow models, network structure, graph theoretic measures, measurement of accessibility, models of network change. Linear Programming and gravity models., Theories related to freight rate structure, bases of spatial interaction, complementary intervening opportunity and transferability.
- Unit -IV :** Patterns of movement : the type, patterns of movement and transport modes, simple model of interaction, transportation network: the function, pattern of movement, movement geometry, transport development.
- Unit-V :** Transport policy and planning, transport development in developing countries, urban, transportation; growth and problems of urban transportation; transport and environmental degradation; vehicular pollution and congestion, alternatives to transport system in mega cities of India, National Highway Development and Planning in India.

## Suggest Reading

1. Chorley R.J. & Haggett P. Models in Geography Methuen & Co. London, 1987.
2. Hurst, M.E. (ed.) Transportation Geography McGraw-Hill, 1974.
3. Haggett, F and Chorley, R.J. Network Analysis, Edward Arnold, London, 1968.
4. Hay, A. Transport Economy, MacMillan, London, 1973.
5. Hoyle, B.S. (ed.) Transport and Development, MacMillan, London, 1973.
6. Raza, M. and Agrawal Y.P. Transport Geography of India, Concept. New Delhi, 1985.
7. Robinson & Bamford C.G. Geography of Transport of Macdonald & Evans. London 1978.
8. Taffe, E.J. & Gauthier (Jr.) H.L. Geography of Transportation, Prentice-Hall, Englewood Cliffs, N.J., 1973.
9. Ullman E.L. American Commodity Flow University of Washington Press 1957.
10. White H.P. and Senior, M.L. Taransport Geography, Logman, London, 1983.

**Practical-A.** The students should familiarize themselves with data sources including maps of transport network and mapping flow data of people and goods (roads and railways) and demarcation tributary areas and major nodes. They should also undertake practical exercises in working out accessibility index, network density and hierarchy, study of transport should be related to regional and locational interaction using maps of market and urban centres and industrial location.

35 marks

B. Record &amp; Viva

15 marks

Paper IV- (F) GEOGRAPHICAL INFORMATION SYSTEM

- A. Definition, development and objective of GIS; Concept of space and time in spatial Information system; Map projections; Components of GIS; Functional elements of GIS; Advantage of GIS.
- B. Data acquisition, pre-processing, data management; product generation; Current issues and recent trends in GIS. Computer Fundamentals for GIS Hardware and Software;
- C. Spatial and non-spatial data, GIS Data model and structure-Raster and Vector; Concept of database, data base structure-Hierarchical network, Relation and object oriented, DBMS, RDBMS, Data handling in GIS.
- D. Geo-referencing, data input, verification and editing; Topology creations, normalization and out put, Error in GIS; Spatial data analysis-Overview. Raster and vector based; Network Analysis; DEM and its applications, Concept and application of Remote sensing and GPS in GIS.
- E. Application of GIS-Use of GIS in Resource mapping; Salient feature of GIS Packages; Future of GIS.

PRACTICAL

- A.
  - i. Geo-referencing, digitization process, layer creation, data entering, Computer assisted cartography using GIS Software. GIS project design, Data base creation, DEM generation.
  - ii. Resource mapping using GIS software in any selected area. 35 marks
- B. Record and viva 15 marks





## SUGGESTED READING:

1. Burrough, P.A and McDonnell, R.A. 1998. *Principles of Geographical Information System*, Oxford uni. press.
2. Ian Heywood, Sarah Cornelius and Steve Carver, 1998. *An Introduction to Geographical Information System*, Longman.
3. Aronoff, S., 1989. *Geographical Information System: A Management Perspective*. Ottawa, Ontario, Canada: WDI.
4. Burrough, P.A., 1986. *Principles of Geographical Information System For Land Resource Management*, Oxford uni. press.
5. Chauniyal, D. 2004. *Remote Sensing and Geographic Information System (Hindi)*. Sharda Pustak Bhawan, Allahabad.



**GEOGRAPHY**  
**M.A./M.Sc. Part II**

**PAPER PRACTICAL**  
**GENERAL PRACTICAL**

The cartographic-cum-field work shall carry 100 marks. There will be a board of two examiners, one external and the other internal. The examination will be conducted on the data mutually agreed upon by the examiners concerned.

For cartographic work the paper will be set on the spot by the examiners, which will be of three hours duration and the candidates shall be required to attempt three questions, one from each sub-section having at least two questions.

**CARTOGRAPHIC WORK**

- I. Map projection : study and drawing of the following of the following map projects, Lambert's conical equal area, polyconic and international, Goll's Sinusoidal and sinusoidal Interrupted, Mollweid and Mollweid Interrupted, Gonic and stereographic (equatorial cases)  
15

II. Statistical methods :

- a. Theory of Probability : Basic principles, axioms of probability, probability distribution, Theory of sampling, types of sampling, random and systematic sampling, problems of application of sampling methods to Geography, Correlation analysis, Karl Pearson's product moment and Spearman's rank Correlation coefficients and their limits, partial and multiple Correlation

coefficient of significance on Correlation Coefficient. 15

- b. Simple linear regression and multiple regression analysis, properties of least/square estimator Co-efficient of determination. Chi square distribution, test of significance based on Chi square. 15

**FIELD WORK**

- III. Air photos and Photogrammetry : elements of Photographic system. Air Photo and image interpretation and mapping land use and land cover, land evaluation, urban land use, land form and its processes, weather studies and studies of water resources; integration of remote sensing. 15
- IV. Field study select any Meso/Macro and micro region from topographical sheet and identify land form Erosional and agents, vegetation and settlement and prepare field survey report supplemented with maps, sketches and photograph. 20

**Record and Viva-voce :-**

20

**Books Recommended-**

1. Steers, J.A. Map Projections, University of London, press London
2. Singh, R.L. Practical Geography
3. Mishra R.P. and Ramesh, A. Fundamentals of Cartography, MacGraw Hill, New Delhi, 1986
4. Gregory, S. Statistical Methods and the Geographer, Longman, London 1963
5. King, R.J. Statistical Analysis in Geography Prentice Hall, Englewood Cliffs, N.J.
6. American Society of photogrammetry : Manual of Photographic Interpretation, Banta Publishing Co. Menasha, Wisconsin, 1960