

BHUPAL NOBLES' UNIVERSITY,
UDAIPUR (RAJ.)



DEPARTMENT OF GEOGRAPHY
FACULTY OF SOCIAL SCIENCES & HUMANITIES

M.A./M.SC. GEOGRAPHY

(Two Year Degree Course)

(Courses effective from Academic Year 2017-18)

Duration of the Course :

The master of Arts/Science, Geography course will be conducted in two years.

Course Structure:**M.A./M.Sc. - (Previous)**

GEOG-611	P-I	Evolution of Geographical Thought
GEOG- 612	P-II	Advanced Physical Geography
GEOG-613	P-III	Economic and Resource Geography.
GEOG-614	P-IV	Political Geography
GEOG-615	Practical - I :	Advanced Cartography - I
GEOG-616	Practical - II :	Surveying & Levelling.

Seminar :: One related to any theme of the theory papers.

M.A./M.Sc. - (Final)

GEOG-621	P-I	Advance Geography of India.
GEOG-622	P-II	Agricultural Geography
Any one the following:		
GEOG-623A	P-III	Urban Geography
GEOG-623B	P-III	Regional Development and Planning
GEOG-623C	P-III	Population and settlement Geography

Any one the following:

GEOG-624A	P-IV	Environmental Geography
GEOG-624B	P- IV	Industrial Geography
GEOG-624C	P- IV	Transportation Geography
GEOG-624D	P- IV	Social Geography
GEOG-625	Practical - I :	Air photo Interpretation and Remote Sensing.
GEOG-626	Practical - II:	Field Studies – Socio – Economic Survey project report

Notes:

1. There will be four theory papers of 100 marks each and two practical courses of 100 marks in each in both M.A. Previous and Final.
2. Use of map stencils (outline of political boundaries only), Log Tables and simple function calculators are allowed in the examination.

3. There will be 16 hours theory teaching per week and 12 hours practical teaching per week. Each practical batch will comprise of 20 students.
4. A common Practical Test Paper of three hours duration will be held along with the main theory examination.
5. The practical Test Paper will be set and evaluated by External Examiner in the line of theory papers.
6. **M.A. (Previous) and (Final)** - The practical exercises, record worked and Viva-Voce Examinational shall be conducted by an external examiner in consultation with the internal examiner.
7. Candidate will have to select any one of the Specialization Elective Papers accordingly will choose in M.A. (Final).
8. Practical - one batch 20 students.

Special notes with regard to for M.A. Final Examinations:

1. A student who obtained 55 per cent marks in the aggregate on successful completion of all the courses prescribed in M.A. Previous may be permitted to work on dissertation in lieu of any one of the optional papers of M.A. Final.
2. The topic and the synopsis of the work are to be got approved by the Departmental Committee.

Each theory paper of three hours duration will be divided into five Units and three categories of questions will be set from each unit as per following distribution.

Section	Questions		Marks	Distribution of Questions
	To be Asked	To be Attempted		
A. Very Short(50 Words)	15	10x1	10	Proportionately from each Unit with internal choice.
B. Short Answers (250 Words.)	10	6x5	30	
C. Analytic/Descriptive Answers (300 Words)	5	15x2	30	

Internal Assessment - Each theory paper 30 marks.

Allocation of marks in practical will be as follows :

Class	Practical	Practical Exercise & Paper	Record work/Project Report	Viva-Voce/Seminar Presentation.	Total
M.A. (Pre.)	Advanced Cartography	70	20	10	100
	Surveying &	70	20	10	100

	Leveling - I				
M.A. (Final)	Air Photo interpretation and Remote Sensing.	70	20	10	100
	Field Studies – Socio – Economic Survey project report		70	30	100

The Practical exercises, record work and Viva-Voce examination shall be conducted by an external examiner in consultation with the internal examiner.

Special notes for Practical Examination:

- i. The Cartographic record work should contain 15 to 20 exercises drawn on one fourth to the full drawing sheet or tracing paper.
- ii. Cartography practical exercises shall be of three hours duration. Candidate will be required to attempt any three exercises out of six.

Special notes for Practical Examinations of 1. Air Photo Interpretation & Remote Sensing and 2. Surveying and levelling:

- i. Practical exercise shall be of three hours duration and of 20 marks and candidates will be required to attempt any 2 exercises out of 4.
- ii. The identification of objects (at least 10) on the satellite imagery and air photo pairs shall be of 30 minutes duration and will carry 10 marks.

Practical exercise shall be of three hours duration based on the practical working on each instruments with following distribution of marks:

Instrument	Exercise	Marks	Time (Minutes)
a. Plane Table	Resectioning or Method	15	35
b. Theodolite		5	10
c. Dumpy Level	Measuring level difference between	5	10

	to distant points		
d. Clinometer	Measuring heights of and level difference between two distant point.	5	10
e. Sextant	Measurement at angle between two distant points	5	10

**M.A. / M.Sc. (Previous) Geography
Paper - I
GEOG- 611- Evolution of Geographical Thought**

Unit - I Philosophy of geography and geography during ancient and medieval period:

Philosophy, definition and nature of geography; scope and purpose of geography. Brief study of Greek and Roman scholars. Geographical concept in ancient India, The dark age of geography. The Arab period.

Unit - II The beginning of modern geography:

Contribution of Bernhardus Varenius. Contribution of Immanuel Kant. Impact of Darwinian Theory on geographical thoughts. Contribution of Alexander von Humboldt. Contribution of Carl Ritter.

Unit - III Major school of thoughts and their contribution:

Main characteristics of German school of thoughts and contributions of Friedrich Ratzel, Alfred Hettner and Ferdinand von Richtofen, French school of thought and contributions of Paul Vidal de la Blache and Jean Brunhes., American school of thought and contributions of W.M. Davis Richard Hartshorne, and Carl O. Sauer, British school of thought and are contribution to geography. Main characteristics of contemporary Indian geographical teaching and research.

Unit - IV Major conceptual trends in geography:

The study of man-land relationship: environmental determinism, possibilism and neo-determinism. Geography as chorological science and areal differentiation. Geography as morphology of landscape. Dichotomies in geography: physical v/s human and systematic v/s regional geography. Dichotomies in geography: qualitative v/s quantitative approach, analysis v/s synthesis approach.

Unit - V Issues related to explanations in geography:

General ideas of hypothesis, theories and laws in geography. Forms of explanations in geography. Exceptionalism in geography and the Schaefer-Hartshorne debate. Impact of positivism and scientific method in geography. Behaviouralism, humanism and radicalism in geography.

Suggested Readings:

1. Abler, Ronal F. et al, Geography's Inner Worlds: Pervasive Themes in Contemporary American Geography, Routledge, New Jersey, 1992.
2. Ali, S.M., Arab Geographers, Institute of Islamic Studies.
3. Ali, S.M., The Geography of Puranas, People's Publishing House, New Delhi.
4. Dikshit R.D., Geographical Thought: A Contextual History of Ideas, Prentice Hall of India Pvt. Ltd. 2000.
5. Dikshit R.D., The Art and Science of Geography: Integrated Readings, Prentice Hall of India, New Delhi, 1994.
6. Dohrs, F.E. and Sommers, L.W. (eds.) Introduction to Geography, Thomas Y. Crowell Co., New York, 1967.
7. Fischer, E. et al, A Question of Place: The Development of Geographic Thought, R.V. Beatty Ltd., Arlington, 1967.
8. Ruson, R.H., A Geography of Geography: Origins and Development of the Discipline, W.M.C. Brown Company.
9. Hartshorne, Richard, The Nature of Geography, Association of American Geographers, Lancaster, Pennsylvania, 1939.
10. Hartshorne, Richard, Perspective on the Nature of Geography, RandMcNally and Co., Chicago, 1959.
11. Harvey, M.E. and B.P. Holly (eds.), Themes in Geographic Thought, Rawat Publications, Jaipur, 1999.
12. Husain, Majid, Evolution of Geographical Thought, Rawat Publications, Jaipur, 1984.

13. Mandal, R.B. and V.N.P. Sinha, Recent Trends and Concepts in Geography (three volumes), Concept Publishing Company, New Delhi.
14. Peet, R., Modern Geographical Thought, Blackwell, Oxford, 1998.
15. Prasad, H., Research Methods and Techniques in Geography, Rawat Publications, Jaipur.
16. Raza, Moonis, A Survey of Research in Geography, ICSSR, New Delhi.
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M.A. / M.Sc. (Previous) Geography
Paper - II
GEOG - 612 : Advanced Physical Geography

Unit - I

Earth's interior: seismological evidences of the structure and zoning of the earth's interior, Revival of the continental drift theory, Plate tectonic theory: division of the crust in plates; plate boundaries and plate margins, mechanism of plate movements; plate tectonics and associated structures, Process of denudation; mass wasting: types and results, Development of slopes: approaches to the study of slopes; views of W. Penck, A. Wood and A.N. Strahler.

Unit - II

Fluvial morphometry: **Linear properties**: stream orders, bifurcation ratio, stream numbers and stream lengths, **Areal properties**: basin area, drainage density and

texture of topography; **Relief properties:** channel slope and valley side slope, Cycle of erosion: views of W.M. Davis. Cycle of erosion: views of W. Penck.

Unit - III

Fluvial landforms: Erosional landforms, Depositional landforms, Fluvial cycle of erosion and interruptions in it, Land form of arid and semi-arid lands, arid cycle of erosion, Glacial topography: erosional and depositional landforms; fluvo-glacial landforms, Coastal landforms. Karst cycle.

Unit - IV

Atmospheric heat: insolation, heat budget; horizontal and vertical distribution of temperature, Atmosphere: atmospheric pressure and its affecting factors, General Winds: forces controlling the atmospheric circulation; uni-cell and tri-cell model of atmospheric circulation, Jet streams: characteristics, types and origin. Air masses: source region, modifications in air masses and their classification; Fronts and their types.

Unit - V

Tropical and Temperate cyclones: origin, areas and weather association with them. Atmospheric humidity: sources and types, Condensation, Sublimation and their forms. Submarine topography, Relief features of the Indian Atlantic & Pacific Ocean floors.

Suggested Readings:

1. Barry, R.G. and R.J. Chorley, Atmosphere, Weather and Climate, Routledge, 1998.
2. Critchfield, H., General Climatology, Prentice-Hall, New York, 1975.
3. Dayal, P., A Text Book of Geomorphology, Shukla Book Depot, Patna, 1996.
4. Garrison, T., Oceanography, Wadsworth Co., USA, 1998.
5. Kale, V., and A. Gupta, Elements of Geomorphology, Oxford University Press, Calcutta, 2001.
6. Mather, J.R., Climatology, McGraw Hill, New York, 1974.
7. Monkhouse, F.J., Principles of Physical Geography, Hodder and Stoughton, London, 1960.
8. Pitty, A., Introduction to Geomorphology, Methuen, London, 1974.
9. Sharma, H.S., Tropical Geomorphology, Concept, New Delhi, 1987. O. Singh, S., Geomorphology, Prayag Pustakalaya, Allahabad, 1998.
11. Sparks, B.W., Geomorphology, Longmans, London, 1960.
12. Strahler, A.N. and A.H. Strahler, Modern Physical Geography, John Wiley & Sons, 1992.
13. Trewartha, G.T., An Introduction to Climate, International Students Edition, McGraw Hill, New York, 1980.
14. fl g] l foln %kkf'rd Hkksy] ol t/kjk izdk'ku] xlg [ki g] 1997
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M.A. / M.Sc. (Previous) Geography
Paper - III
GEOG-613 : Economic and Resource Geography

Unit - I

Scope, approaches and recent trends in economic geography. Location, movement and interaction in the simplified and heterogeneous landscape. Spatial variation in transport costs : location and structure of transport cost; location of economic activities and spatial organisation of economies; Transportation development and spatial impact. Spatial variation in production costs: labour, capital, technical knowledge; location impact.

Unit – II

Classification of economies, sectors of economy: primary, secondary and tertiary. Types of farming; subsistence agriculture. Tropical plantations. Commercial grain farming and corn region of USA. Mediterranean agriculture.

Unit - III

Study of Great Lake industrial region of USA. Study of Ruhr industrial region. Study of industrial belt of Japan. Study of industrial region of Ukraine. World pattern of water transportation and trade.

Unit - IV

Scope, approaches and trends in resource geography. Resources: concepts and classification. Distribution, production and problems of conservation of iron, ore and manganese. Distribution, production and problems of conservation of coal, petroleum, and nuclear resources. Forest and water resources: distribution, utility and conservation.

Unit – V

Distribution, density and growth of human resources. Population-resource equilibrium. Population resource regions of the world. Problems of resource utilization and conservation of resources. Resource regions of world.

Suggested Readings:

1. Alexander, J.W., Economic Geography, Prentice Hall of India, New Delhi.
2. Bengston, N.A. and M.W. Royen, Fundamental of Economic Geography, Prentice Hall.
3. Berry, B.J.L. et al, D.M., Economic Geography, Prentice Hall.
4. Hamilton, F.E.I. (ed.), Resources and Industry, Oxford University Press, New York, 1992.
5. Janaki, V.A., Economic Geography, Concept Publishing Co., New Delhi.
6. Robinson, H., Economic Geography, MacDonald and Evans.
7. Singh, G., Economic and Commercial Geography, Manol Talao.
8. Thomas, R.S., The Geography of Economic Activity, McGraw Hill, New York.
9. Wheeler, J.O. et al, Economic Geography, John Wiley, New York, 1995.
10. Whitbeck, R.S. and Finch, V.L. Economic Geography, McGraw Hill, New York.
11. Zimmermann, E.W., World Resources and Industries, Harber.
- 12- JhokLro] oh-d-s, o ajko] ch-i h-% vkfFkZd Hkaksy dseny rRo %oI q/kjk izdk'ku] xkj [ki j ½
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M.A. / M.Sc. (Previous) Geography
Paper - IV
GEOG -614 : Political Geography

Unit – I

Nature, scope and subject matter of political geography. Geopolitics: meaning and contributions of Emmanuel Kant, Karl Ritter, Friedrich Ratzel, H.V. Tiritische, Rudolf Kjellen and Karl Haushofer. Development of political geography. Concepts and contributions of: Alfred Thayer Mahan, H.J. Mackinder and Alexander-de-Seversky. D.W. Meinig, N.J. Spykman and Hooson.

Unit - II

Recent trends in political geography. The functional approach in political geography. The unified field theory of political geography. Nature of administrative areas. e) Geography of public policy and finance.

Unit – III

Concept of nation, state and nation state. The state as a politico-geographical region: location, shape, size. Resources of state: natural, cultural and human. Population: growth, quality and problems. Frontiers and boundaries: types and functions, boundary making and boundary problems.

Unit - IV

Core areas and capitals. Unitary and federal states. The impress of government on landscape. Politics of world resources. Politics of globalization and WTO.

Unit – V

Electoral studies in political geography. Conceptual model of voting decision. Gerrymandering: gerrymandering in relation to India. Geographical influence on voting behaviour of the electors in India. Spatial pattern of voting behaviour in Rajasthan.

Suggested Readings:

1. Boggs, S.W., International Boundaries: A Study of Boundary Function and Problems, Columbia University Press, New York.
2. Dikshit, R.D., Political Geography: A Contemporary Perspective, Tata McGraw Hill, New Delhi, 1996.
3. Fawcett, C.B., Frontiers: A Study in Political Geography, Oxford University Press, London.
4. Fisher Charles A., Essays in Political Geography, Methuen, London, 1968.
5. John R. Short, An introduction to Political Geography, Routledge, London, 1982.
6. Moodie, A.E., Geography Behind Politics, Hutchinson University Press, London.
7. Percy, G.E. and R.H. Fifield, World Political Geography, Thomas Y. Crowell Co., London.
8. Pounds N.J.G., Political Geography, McGraw Hill, New York, 1972.
9. Prescott, J.R.V., Political Geography, Methuen & Co., London.
10. Sukhwal, B.L., Modern Political Geography of India, Sterling Publishers, New Delhi, 1986.
11. Taylor, Peter; Political Geography Longman, London, 1985.
12. Wigert, H.W. et al, Principles of Political Geography, Appleton Century-Crofts Inc. New York.
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M.A. / M.Sc. (Previous) Geography
Practical - I
GEOG - 615 : Advanced Cartography

Unit - I

Meaning of cartography, art & science of cartography, history of cartography. Cartographic materials and techniques. Quantitative and qualitative symbols. Maps and their classification. Sources of geographic data (India). The representation of data, information, features related to the following geographical aspects through maps and diagrams and their interpretation (to be submitted along with the record work):

Unit - II

Climatic aspects: Isohyets or isotherms Rainfall dispersion diagram. Rainfall variability graphs (running average and cumulative deviation). Rainfall trend line. Temperature variation graph.

Unit - III

Geomorphic aspects (based on toposheets of 1:50,000 or 1:25,000 scale): Profiles: serial, composite, superimposed and projected. Slope: average slope map according to Wentworth's method. Drainage density and texture. Hypsometric curve

Unit - IV

Demographic, transport and settlement aspects (atleast with 20 administrative units): Density and population trend. Age and Sex composition. Urban and rural composition. Traffic flow: cartograms. Nearest neighbour analysis.

Unit - V

Economic and social aspects (atleast 20 administrative units): Occupational structure. Cropping pattern Crop production and area. Literacy. SC and ST population.

Note: The record work will comprise of a minimum of 20 exercises drawn on one-fourth of a full drawing sheet and methodological and analytical interpretation of each one.

References:

1. Arthur G., Advance Practical Geography, Heinemann.
2. Campbell, J., Introductory Cartography, Prentice Hall Inc., New York.
3. Govt. of Rajasthan, District Census Handbooks, latest as well as of previous Census,
4. Keates, J. S., Cartographic Design and Production, Longman, London.
5. Loxton, J., Practical Map Production, John Wiley & Sons, New York.
6. Mishra, R. P. and A. Ramesh, Fundamentals of Cartography, Concept Publishers, New Delhi.
7. Monkhouse, F. J. and H. R. Wilkinson, Maps and Diagrams, Methuen & Co., London.
8. Raisz, E., General Cartography, McGraw Hill Book Co., New York.
9. Robinson, A. H., Elements of Cartography, Chapman & Hall.
10. Sing, R. L., Elements of Practical Geography, Kalyani Publishing.
11. Singh, R. N., Map Work and Practical Geography, Central Book Depot.
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M.A. / M.Sc. (Previous) Geography
Practical - II
GEOG - 616 : Surveying & Leveling

Unit - I

Surveying as an art and science, Principles of surveying, General errors and inaccuracies in surveying, Precautions in using survey instruments, Trigonometrically methods of solution of triangles and computation of lengths.

Unit - II Plane Table:

Use of plane table in composite surveys and related methods, Methods of resectioning, General planning of large area plane surveys, A composite survey of college campus or any neighbourhood area on scale 1:100 to 1:1000, Drawing of control points and surveyed plan.

Unit - II Clinometers and sextant and surveying:

Part and methods of using the Indian clinometers, methods of using the Indian clinometers, Measuring spot height and determining, the height of distant points of methods of contouring. sextant : Adjustment of sextant and measurement of Angle.

Unit - IV Theodolite and tacheometer:

Theodolite as an instrument of surveying and levelling. Procedure of theodolite. Computation of theodolite bearings. Computation of lengths of triangles and plotting of control points, Telemetry: stadia and tangential.

Unit - V Dumpy level:

Use of dumpy level as an instrument of levelling. Adjustment of the dumpy level. Principles: Calculation of difference of level, series levelling, backsights, foresights, intermediate sights. Level book and computation of reduced levels: Rise and fall and collimation methods. Plotting of profiles.

Suggested Readings:

1. Clark, D., Plane and Geodetic Surveying, Constable.
2. Davis, R.E. and F.S. Foot, Surveying: Theory and Practice, McGraw Hill.
3. Hinks, A.R., Map and Survey, Cambridge.
4. Kanetkar, T.P., Surveying and Levelling, Vol. I & II, A.U. Grah Prakashan.
5. Kiley, P.T., Surveying and Levelling, Vol. I & II, A.U. Grah Prakashan.
6. Survey Manual, Vol. I - VIII, Survey of India.
7. Williamson, J.T., Surveying and Field Work, Constable.

M.A. / M.Sc. (Final) Geography
Paper - I
GEOG- 621 : Advanced Geography of India

Unit - I

Geographical structure of India. Physiographic divisions and sub divisions. Climate: regional variations, phenomena of Monsoon and cycle of seasons. Vegetation types and vegetation regions; problem of deforestation. Major soil types; problem of soil erosion.

Unit – II

Water resources: status and problems; problem of floods and droughts. Coastal and marine resources. Irrigation: sources; multipurpose schemes and their problems with reference to Kaveri, Chambal and Sutlej. Agro-climatic regions; Cropping pattern.

Unit – III

Major mineral resources: ferrous - iron ore and manganese; and non-ferrous - bauxite and copper. Power resources: conventional - thermal and hydro; and non-conventional - solar and wind. Major industries: cement, chemical and engineering industries. Industrial regions of India. India's international trade : items, destination/origin, problems and policies.

Unit - IV

Population: distribution and growth; tribal population distribution pattern and belts. Population problems and population policy of India. Settlement types and pattern. Transportation: rail, road and air. Regional disparities and socio-economic development in India; Indian five year plans: objectives and achievements.

Unit - V

Concept of geographical regions; outline scheme of regions proposed by S.P. Chatterjee and R.L. Singh. Detailed study of Kashmir region, Detailed study of Middle Ganga plain region. Detailed study of Malwa plateau region. Detailed study of Tamil Nadu coastal plain and Bay of Bengal islands.

Suggested Readings:

1. Blandford, H.F., Climate and Weather of India, Ceylon and Burma, Meteorological Department of India.
2. Brown, C. and Dey, India's Mineral Wealth, Oxford University Press, London.
3. Chandrashekhar, S., India's Population: Facts and Policy, Allen and Unwin.
4. Chatterjee, S.D., Climatology of India, Calcutta University, Calcutta.
5. Chhibber, H.L., India, Part-III, Nand Kishore and Bros.
6. Davis, K., The Population of India, Princeton.
7. Deshpande, C.D., India - A Regional Interpretation, Northern Book Centre, New Delhi, 1992.
8. Joshi, H., Industrial Geography of India: A Case Study of Fertiliser Industry, Rawat Publication, Jaipur.
9. Khullar, D.R., India: A Comprehensive Geography, Kalyani Publishers, Ludhiana, 2000.
10. Mitra, A., Levels of Regional Development of India, Census of India, Vol. 1, Part I-A (i) and (ii), New Delhi, 1967.
11. Routray, J.K., Geography of Regional Disparity, Asian Institute of Technology, Bangkok, 1993.
12. Shafi, M., Geography of South Asia, McMillan & Co., Calcutta, 2000.
13. Singh, G., Geography of India, Atmaram & Sons, Delhi.

14. Singh, R.L. (ed), India: A Regional Geography, National Geographical Society, India.
15. Wadia, D.N., Geology of India, McMillan & Co., London, 1967.
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M.A. / M.Sc. (Final) Geography
Paper - II
GEOG - 622 : Agricultural Geography

Unit - I

The nature and scope of agricultural geography. Approaches in agricultural geography: recent trends. Origin and dispersal of agriculture. Development of agricultural geography. Sources of agricultural data.

Unit - II

Physical factors affecting agriculture: terrain, climate, soils and water. Non-physical factors affecting agriculture: Institutional (including social and economic) and technological. Agricultural systems of the world: critical review of classification of agricultural types. Major agricultural types of the world and their characteristics and world distribution. Detailed study of intensive subsistence, commercial grain farming, Mediterranean agriculture and tropical plantation agriculture.

Unit - III

Land use classification; land use pattern in India; and land capability classification. Von Thunen's agricultural model of agricultural land use and recent modification in it. Cropping pattern; changing cropping pattern in India. Measures of carrying capacity of land; nutrition and food balance sheet; food surplus and food deficient regions of India. Diffusion model.

Unit - IV

Concept and techniques of delimitation of agricultural regions; agricultural regions of India and their characteristics. Measures of agricultural productivity and efficiency levels and other characteristics. Regional pattern of agricultural productivity in India. Crop combination methods: Weaver's Doi's and Rafiullah's methods and their applications. Agricultural typology: concept and methodology; patterns with special reference to the world and Rajasthan.

Unit - V

Sustainable development in agriculture. Green revolution: Its components, impact and consequences. White revolution: Its components, impact and consequences. Specific problems in Indian agriculture and their management and planning. 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 Geography of Economic Systems, Prentice Hall, New York, 1976.
3. Weber, Alfred, Alfred Weber's Theory of Location of Industries, Chicago University Press, Chicago, 1929.
4. Yaseen, Leonard, Plant Location, American Research Council, New York.
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M.A. / M.Sc. (Final) Geography
Paper - III (A)
GEOG - 623 : Urban Geography

Unit - I

Meaning, aims, Importance and Scope of Urban Geography. Origin and growth of Urban centre ancient and medieval age. Process of Urbanization, Trends of Urbanization in the World. Urbanization in India, Development of metropolitan cities in India.

Unit - II

Classification of Urban centre: Views of Mum ford and Griffith Taylor. Theories of Urban system: the law of primate city & the rank-size rule. Central Place theories: Christaller's central place system. Losch's economic land scope. Development of conurbation and Megalopolises: North Eastern sea board of USA, Rhira-Ruhr conurbation, Mumbai and Kolkatta conurbations in Inida.

Unit - III

Urban land use: Human ecology and urban land use models of Burgess, Harris-Ullman and Hoyt. Land economics and Urban Land Use. Central business District (CBD): Criteria and Methods of area definition, Historical Process and CBD, the zone in transition. Functional classification of cities: Empirical and Statistical Methods. Centripetal and centrifugal forces of urban growth.

Unit - IV

Rural Urban fringe: Concept, Criteria's of Delimitation and chrematistics. Morphology of Indian Cities: Ancient, Medieval and Modern planned cities of India with Special Studies of Jaipur and Chandigarh cities. Concept of basic and non basic factions, internal functional structure of Urban centers. Social structure in urban areas of India, Social Segregation in India Cities.

Unit - V

Urban Problems: Development of slums in urban areas and their problems, Problems of housing and social infrastructure. Urban Planning: Principles of urban planning, Layout Plans of Cities. Urban environment: Industrial pollution and environmental planning. Sustainable Urban Development: Studies of master plans of Udaipur and Jaipur cities.

Reference :

- Bansal, S.C., Urban Geography, Minakshi Publication, Meeruth, 2000, (Hindi).
- 2. Beaujeu-Garnier, J. and G. Chabot, Urban Geography, Longman, London.
- 3. Berry, B.J.L. and F.E. Horton, Geographic Perspectives on Urban Systems, Prentice Hall, New York, Englewood Cliffs, New Jersey, 1970.
- 4. Carter, Harlod, The Study of Urban Geography, Arnold-Hienemann Publishers (India) Private Ltd., New Delhi, 1982.
- 5. Chapin, F. Stuart, Urban Land Use Planning, University of Illinois Press.
- 6. Forrester, Jay W., Urban Dynamics, M.I.T. Press, Cambridge.
- 7. Gallion, Arthur B. and Simon Eisner, The Urban Pattern: City Planning and Design, Affiliated East-West Press Private Ltd., New Delhi, 1969.
- 8. Gibbs J.P., Urban Research Methods, D. Van Nostrand Co. Inc. Princeton, New Jersey, 1961.
- 9. Hagget, P., Geography: A Modern Synthesis, Harper & Row, New York.
- 10. Herbert, David T. and Colin J. Thomas, Urban Geography: A First Approach, John Wiley and Sons, New York, 1982.
- 11. Johnson, J.H., Urban Geography: An Introductory Analysis, Pergamon Press, London, 1968.
- 12. Kundu, A., Urban Development and Urban Research in India, Khanna Publication, 1992.
- 13. Meyor, H.M. and C.F. Kohn, (eds.), Readings in Urban Geography, University of Chicago Press, Chicago, 1955.
- 14. Murphy, R.E., The American City: An Urban Geography, McGraw Hill Book Co., New York, 1966.
- 15. Nangia, Sudesh, Delhi Metropolitan Region: A Study in Settlement Geography, Rajesh Publication, 1976.
- 16. Pacione, M., Progress in Urban Geography, Croom Helm, London.
- 17. Singh, O.P., Urban Geography, Tara Book Agency, Varanasi, 1987, (Hindi).
- 18. Singh, R.L., Banaras, Nandkishore, Varanasi.
- 19. Tewari, Vinod K., Jay A. Weinstein and V.L.S. Prakasa Rao (eds.), Indian Cities: Ecological Perspectives, Concept Publishing Co., New Delhi, 1986.

M.A. / M.Sc. (Final) Geography

Paper - III (B)

GEOG - 623 : Regional Development and Planning

Unit - I

Development: concept, process and indicators; planning: concept, need and levels. Region: concept, types and delimitation; planning regions: characteristics, hierarchy, need, demarcation - principles, criteria and methods. Regional planning: nature and rationale. Development of regional planning and associated factors. Problems of depressed areas, economic growth, physical city, efficiency in administration, equality, autonomy and self fulfillment.

Unit - II

Regional planning theory: society and supra urban space, economic activity and supra urban space and the systems of cities and economic development. Social and political activity and supra urban space. Analytical techniques for regional planning: Information needs, forecasting techniques, industrial location analysis. Economic base analysis, regional multiplier analysis, input output analysis. Social accounting, gravity model, social area analysis.

Unit - III

Evaluation techniques for regional planning: Requirements of an evaluation techniques. Checklist of criteria. Cost minimization: comparative cost analysis and threshold analysis. Cost effective analysis: goal achievement matrix. Cost benefit analysis and planning balance sheet.

Unit - IV

Regional planning in India and multi-level planning in India. Regional planning legislation in India. Planning regions of India: review and typologies. Surveys for planning: concepts and functions. Regional surveys, diagnostic surveys, techno-economic surveys.

Unit - V

Regional planning case studies: India: national capital region. Great Britain: Lancashire. France: Paris region.) USA: Tennessee valley authority. Israel: Jazrell valley.

Suggested Readings:

1. Abler, R., et al, Spatial Organization, The Geographer's View of the World, Prentice Hall, Englewood Cliffs, N.J., 1971.
2. Alden, Jeremy and Robert Morgan, Regional Planning: A Comprehensive View, Leonard Hill Books, Beds, 1974.
3. Bhat, L.S. et al., Micro-Local Planning: A Case Study of Karnal Area, Haryana, K.B. Publications, New Delhi, 1976.
4. Bhat, L.S., Regional Planning in India, Statistical Publishing Society, Calcutta, 1973.
5. Chandna, R.C., Regional Planning: A Comprehensive Text, Kalyani Publishers, Ludhiana, 2000.

6. Christaller, W., Central Places in Southern Germany, Translated by C.W. Baskin, Prentice Hall, Englewood Cliffs, New Jersey, 1966.
7. Glasson, John, An Introduction to Regional Planning - Concepts, Theory, and Practice, Hutchinson Educational Ltd., London, 1974.
8. Gosal, G.S. and Krishan, G., Regional Disparities in Levels of Socio-Economic Development in Punjab, Vishal Publications, Kurukshetra, 1984.
9. Government of India, Planning Commission, Third Five Year Plan, Chapter on Regional Imbalances in Development, New Delhi, 1961.

M.A. / M.Sc. (Final) Geography
Paper - III (C)
GEOG - 623 : Population & Settlement Geography

Unit - I

Meaning, scope and development of population geography. Population geography and demography. Sources of data: population counts and census; sample data. Reliability of data and problems of mapping population data. Data errors and their detection and correction.

Unit - II Population distribution:

Theoretical issues of population distribution. Measures of population distribution. World pattern of population distribution. Determinants of population distribution. Population distribution in India; patterns and determinants .

Unit - III Population growth :

Population growth since prehistoric period. Demographic transition theory and population growth models. Fertility analysis, fertility patterns and its determinants. Mortality analysis, patterns and its determinants. e) Growth of population in India: patterns, components and determinants.

Unit - IV Population structure and characteristics:

Age structure and sex composition. Educational composition. Urbanisation. Economic characteristics and occupational structure. Population composition of India: characteristics and problems.

Unit - V

Evolution, size and spatial distribution pattern of human settlement and related theories and models. Physical structure of settlements; internal characteristics and external forms. Functional structures of settlements; functional classification of towns and functional typology of villages; functional landscape of settlements. Settlement hierarchy : concept and contributing factors.

Suggested Readings:

1. Bhende, Asha A. and Tara Kanitkar, Principles of Population Studies, Himalaya Publishing House.
2. Bilasborrow, Richard E. and Daniel Hogan, Population and Deforestation in the Humid Tropics, International Union for the Scientific Study of Population, Belgium, 1999.
3. Bogue, D.J., Principles in Demography, John Wiley and Sons, New York, 1969.
4. Bose, Ashish et al, Population in India's Development: 1947-2000, Vikas Publishing House, New Delhi, 1974.
5. Census of India, India: A State Profile, 1991.
6. Clarke, John I., Population Geography and the Developing Countries, Pergamon Press Inc., Oxford, 1971.
7. Clarke, John I., Population Geography, Pergamon Press Inc., Oxford, 1973.
8. Crook, Nigel, Principles of Population and Development, Pergamon Press, New York, 1997.
9. Garnier, Beaujeu J., Geography of Population, Longman, London, 1970.
10. Kochhar, Rajesh, The Vedic People: Their History and Geography, Orient Longman Ltd., New Delhi, 2000.
11. Mamoria, C.B., India's Population Problems, Kitab Mahal, New Delhi, 1981.

12. Mitra, Asok, India's Population: Aspects of Quality and Control, Vol. I & II, Abhinav Publications, New Delhi, 1978.
13. Premi, M.K., India's Population: Heading Towards a Billion, S.R. Publishing Corporation, New Delhi, 1991.
14. Shryock, Honry, S. et al, The Methods and Materials of Demography, Vol. I & II, U.S. Bureau of the Census.

M.A. / M.Sc. (Final) Geography
Paper - IV (A)
GEOG - 624 : Environmental Geography

Unit - I

Environmental geography: definition scope and concepts. Ecology: meaning, scope and concepts. Environment: meaning, elements, and types. Principles of environmental geography. Man-environment relationship: review of different perspectives.

Unit - II

Ecosystem: concept, definitions, characteristics and types. Components and functioning of ecosystem. Trophic level, food chain and ecological pyramids. Energy flow in ecosystem. Geo-chemical cycles and circulation of element in the ecosystem: carbon cycle, nitrogen cycle and oxygen cycle.

Unit - III

Fresh water ecosystems: meaning, types and their properties. Marine ecosystems: meaning, types and their properties. Terrestrial ecosystems: meaning, types and their properties. Biomes: concept, types, characteristics and distribution. Detail study of alpine and tropical desert biomes.

Unit - IV

Environmental hazards and disasters: meaning, types and impacts. Environmental degradation: meaning, process, causes, types and impacts. Environmental pollution: meaning, causes, types and impact. Environmental planning and management: concept, objectives and strategies. Sustainable development: concept, need, problems and strategies.

Unit - V Case studies of man induced environmental and ecological changes:

Ecology of tropical farming systems. Mountain ecosystem with special reference to Aravalli hills. Big dams with reference to Sardar Sarovar. Environmental legislation: The Stockholm Conference and the Earth Summit. Environmental laws in India related to: wild life, water, forest and environment.

Suggested Readings:

1. Ackerman, E.A., Geography as a Fundamental Research Discipline, University of Chicago Research Papers, 1958.
2. Agarwal, A. and S. Sen, The Citizens Fifth Report, Centre for Science and Environment, New Delhi, 1999.
3. Bertalanffy, L., General Systems Theory, George Bragiller, New York, 1958.
4. Bodkin, E., Environmental Studies, Charles E. Merrill Publishing Co., Columbus, Ohio, 1982.
5. Chandna, R.C., Environmental Awareness, Kalyani Publishers, New Delhi, 1998.
6. Chorley, R.J., Geomorphology and General Systems Theory, U.S.G.S. Professional Paper, 500 B, 1962.
7. Eyre, S.R. and G.R.J. Jones (eds.), Geography as Human Ecology, Edward Arnold, London, 1966.
8. Haggett, R.J., Geo-ecology: An Evolutionary Approach, Routledge, London, 1995.
9. Kormondy, E.J., Concepts of Ecology, Prentice Hall, 1989.
10. Moore, R., Man in the Environment, McGraw Hill.
11. Murphy, E.F., Man and His Environment, Harper & Row.

12. Odum-Fugene, P., Fundamentals of Ecology, W.B. Saunders Co.

M.A. / M.Sc. (Final) Geography
Paper - IV (B)
GEOG - 624 : Industrial Geography

Unit - I

Nature and scope of industrial geography, recent development in industrial geography. Classification of industries: bases and characteristics. Elements and factors of industrial localisation. Centralisation and decentralisation of industrial enterprises. Horizontal, vertical and diagonal linkages of industries.

Unit - II Basic economic concepts:

Demand, supply and price; marginal cost and average cost. Economies of scale and agglomeration and related concepts. Critical review of theories and models of industrial location: Weber, E.M. Hoover, August Losch and A. Fetter. Schooler, G.T. Renner, A. Pred and Palander Tord. D.M. Smith, E.M. Rawstron, Bos H.C. & Hamilton.

Unit - III Geographical analysis of selected industries in the world with reference to India.

Copper, aluminium and iron and steel. Pulp and paper, textile. Oil refining and shipbuilding. Software industries. Locational analysis of zinc and cement industry of Rajasthan.

Unit - IV

Industrial location and spatial distribution analysis and measures: coefficients of localisation, specialisation, geographic association and index of diversification. Delimitation of industrial regions: indices and methods. Study of major industrial regions of the world: Ruhr region and Great Lakes region. Industrial belt of Japan, Ukraine region and Lancashire region. Major industrial regions of India.

Unit - V

Environmental degradation caused by manufacturing industries. Industrial hazards and health. Impact of industries on economic development. Role of globalisation on manufacturing sector in less developed countries. Shifting of industries and its impact on the urban fringe.

Suggested Readings:

1. Adam, Watter, Structure of American Industry, Macmillan & Co., New York.
2. Alexander, J.W., Economic Geography, Prentice Hall, New York.
3. Bengston, N.A. and V.L. Royen, Fundamental of Economic Geography, Prentice Hall, New York.
4. Boesch, H., A Geography of World Economy, D. Van-Nostrand Co., New York, 1964.
5. Britton, John N.H., Regional Analysis and Economic Geography, G. Bell & Sons.
6. Eastall, R.C. and R.O. Buchanan, Industrial Activity and Economic Geography, Hutchinson, London.
7. Hoover, E.M., The Location of Economic Activity, McGraw Hill, New York, 1948.
8. Joshi, Hemlata, Industrial Geography of India: A Case History of Fertiliser Industry, Rawat Publishers, Jaipur.
9. Losch, August, The Economics of Location, Yale University Press, London, 1973.
10. Miller, E.W., A Geography of Manufacturing, Prentice Hall, New York, 1962.
11. Riley, R.C., Industrial Geography, Chatto and Windus, London, 1973.

12. Saushkin, Yu G., Economic Geography: Theory and methods, Progress Publishers, Moscow, 1980.

M.A. / M.Sc. (Final) Geography
Paper - IV (C)
GEOG - 624 : Transportation Geography

Unit - I

Meaning, scope and development of transportation geography. Factors associated with the development of transport system: historical, technological, physical, economic, political and social. Spatial interaction: ideas of Edward Ullman; functional approach of M.E. Hurst. Concepts of distance: point to point distance and distance in a group of points. Measures of distance: physical, time, economic and perceptual.

Unit - II

The functional region, linkages and nodes, diagrammatic representation of hinterlands and hierarchies. Transportation and spatial processes: regional specialisation and agglomeration economies. Cost of overcoming distance: transportation cost, price and rate structure. Transport costs as factor of production. An idealised process of transport development.

Unit - III

Graph theoretic concepts. Networks as models. Types of connectivity: concept and indices of connectivity. Measures of nodal accessibility: the network as a matrix; degree of connectivity: direct and indirect connectivity. Indices of accessibility: accessibility matrix, matrix T, shortest path matrix and valued matrix; sinuosity.

Unit - IV

Spatial patterns of flow. Gravity model: basic model and modifications. Gravity model and the traffic and commodity flow. Allocation model: transportation problem and optimum solution. Flow in a capacitated network.

Unit - V

Negative impacts of transportation: social, accidents and other impairments. Economic and environmental aspects of urban transport problems and their control. Alternative transport system in mega cities. Transport systems in the developing countries. Development of the Indian surface transport system.

Suggested Readings:

1. Abler, Adams and Gould, Spatial Organisation: The Geographer's View of the World, Prentice Hall, New York.
2. Buchannan, C.D., Traffic in Towns, Buchannan Report, HMSO, London.
3. Hagget, P. et al, Locational Analysis in Human Geography, Edward Arnold, London, 1977.
4. Haggett, P. and R.J. Chorley, Network Analysis in Geography, Arnold, London, 1968.
5. Hay, A. Transport Economy, Macmillan, London, 1973.
6. Hoyle, B.S. (ed.) Transport and Development, Macmillan, London, 1973.
7. Hoyle, B.S. and R. Knowles, Modern Transport Geography, Wiley Europe.
8. Hurst, M.E.E., Transportation Geography: Comments and Readings, McGraw Hill, New York, 1974.
9. Kansky, K.J., Structure of Transportation Network, Research Paper No. 48, Department of Geography, University of Chicago.
10. Knowles, R. and J. Wareing, Economic and Social Geography, Heinemann.
11. Lowe, J.C. and S Moriyadas, The Geography of Movement, Houghton Mifflin Co., Boston.

12. Munby, D., Transport, Penguin.
13. Patankar, P.G., Urban Transport in Distress, Central Institute of Road Transport, Pune.
14. Robinson, H. and C.G. Bamford, Geography of Transportation, McDonald and Evans, London, 1978.
15. Taaffe, E.J. and et al, Geography, Prentice Hall Inc.

M.A. / M.Sc. (Final) Geography
Paper - IV (D)
GEOG - 624 : Social Geography

Unit - I

Nature and Development of social geography. Scope and significance of social geography. Philosophical bases of social geography. Positivity, structuralist and radical. Humanist, post-modern, and post structuralist. Social geography in the realm of social science.

Unit – II

Space and society. Understanding society and its structure and processes. Geographical bases of social formations. Contribution of social geography to social theory. Power relations and space.

Unit - III

Towards a social geography of India: nature and problems of social geographical data. Social differentiation and region formation; evolution of socio-cultural regions in India. Bases of social region formation, role of caste, ethnicity, religion, dialect and languages. Indian unity and diversity. Social transformation and change in India.

Unit - IV

Concepts of social well-being and physical quality of life. Human development concept, components, indices and measurement. Rural-urban deprivation with respect to shelter, health and education. Deprivation and discrimination issues relating to women and underprivileged groups. Patterns and bases of rural and urban society.

Unit - V

Spatial distribution of social groups: tribes, castes, religious and language groups. Social groups and power relations in India. Review of five year plans and area plans towards social policy in India. Strategies to improve social well being in tribal, hill and drought prone areas. Social and environmental impact assessment of development projects.

Suggested Readings:

1. Ahmad, Aijazuddin, Social Geography, Rawat Publication, New Delhi, 1999.
2. de Blij. H.J., Human Geography, John Wiley and Sons, New York.
3. Dubey, S.C. Indian Society, National Book Trust, New Delhi, 1991.
4. Gregory, D. and J. Larry, (eds.) Social Relations and Spatial Structures, McMillan, 1985.
5. Guha, B.S., Racial Elements in India's Population, Oxford University Press, London.
6. Singh K.S., Tribal Situation in India, IAS, Shimla.

M.A. / M.Sc. (Final) Geography

Practical - I :

GEOG-625 : Air Photo Interpretation and Remote Sensing

Unit - I

Definition, Scope and Development of air photo interpretation techniques. Types and quality of aerial photographs; factors affecting quality of aerial photographs. Tools and geometry of air photographs: Pocket and mirror stereoscope; geometry of aerial photographs. Aerial camera, lens and filters. Stages of production of aerial photographs.

Unit - II

Construction of stereograms and stereotriplets; mosaics: types and their characteristics. Basic air photo measurements: Photographic scale and flying height; measuring height of objects. Displacement: relief and tilt. Calculation of area, number of strips and number of airphotos; measuring angles, shutter speed and expauser interval. Parallax: slope measurement.

Unit – III

Basic concepts and historical development of Remote Sensing techniques. Process and stages of remote sensing. Electromagnetic spectrum, properties of electromagnetic waves, energy interaction in the atmosphere and earth surface features. Basic principles of thermal Remote Sensing: properties, characteristics of India remote sensing imageries. Remote sensing platforms, sensors and resolution.

Unit - IV

Data analysis: Ground truth collection, concept of signatures, data processing and digital processing. Satellite remote sensing platforms - Landsat, SPOT, IRS, INSAT; principal characteristics and geometry of scanner. Orbital characteristics and data production : MSS, TM, LISS, I, LISS II and LISS III, HMR. Equipment and their uses: Optical reflecting projector; diazo printer; overhead reflecting projector; analog image analyzer. Working of above equipment.

Unit - V

Elements of object identification. Comparisons of maps, air photos and imageries. Mapping and interpretation of natural and cultural landscapes, field checking with air photos and imageries. Application of remote sensing in geomorphic, agricultural, forestry, resource management, and environmental studies. Computer based analysis of remote sensing data; GIS data model and structure; GIS and remote sensing integration.

Practical Exercises Based on Aerial Photographs:

Object identification by Pocket Steroscope. Indexing of aerial photographs c) Interpretation of the following:

- i. Topographical aspects: General physiography, drainage orders and basins, vegetation, surface materials. (One exercise of each aspect).
- ii. Cultural aspects: Landuse-land covers (agricultural and general), field patterns settlement and transportation lines. (One exercise of each aspect).
Based on Satellite Imageries: (One exercise of each aspect)

Landuse-land covers. Urban settlement pattern. Forest: types and density. Drainage order and basins. Settlement and transportation lines. Topographical aspects.

Suggested Readings:

1. American Society of Photogrammetry: Manual of Remote Sensing, ASP, Falls Church, VA, 1983.
2. Avery, T.E., Interpretation of Aerial Photographs, Burges.
3. Barrett, E.C. and L.F. Curtis, Fundamentals of Remote Sensing and Air Photo Interpretation, Macmillan, New York, 1992.
4. Compbell, J., Principles of Remote Sensing, Longman, London, 1985.
5. Hord, R.M., Digital Image Processing of Remotely Sensed Data, Academic, New York, 1989.
6. Robert, G. Reeves et al, Manual of Remote Sensing, Vol. I and II.
7. Smith, H.T.V., Aerial Photographs and their Applications, Appleton Century Crofts.
8. Talbutt, A., Essentials of Aerial Surveying and Photo Interpretation
9. Tomar, M.S. and A.R. Maslekar, Aerial Photographs in Land use and Forest Surveys Kishore and Co. Dehradun

M.A./M.Sc. Geography (Final)

Practical - II

GEOG - 626 : Field Studies- Socio-Economic Survey project report

UNIT - I

Introduction of field study in Geography : Definition, need and objectives of field study, Nature and Types of field studies, Method and Stages of field study, Training and preparation for field study.

UNIT - II

Socio-Economic field Survey of the selected Localities : Sampling methods, Source of data for field study, Data processing and mapping for field study, Map interpretation and centralisation.

UNIT - III

Diagrammation and Graphic Presentation of Data: Objects of Diagrams, Usefulness of Diagrams, Limitation of Diagrams, Types of Diagrams, Importance of Graphs, Procedure of constructing Graph, Use of Scale, False base line, Types of Graph.

UNIT - VI

Preparation of Report : Aim objective and methodology the report, Principles and structure of the Report, Problems of preparing the Report, out lime of the Report

UNIT - V

Land use survey and mapping, Urban survey, Geomorphological Mapping flood zone delineation and mapping.

Main objective of the socio-economic survey project report or the Field work is to provide the students with the understanding of a chosen village/ town area by observation, mapping of land quality, land use and cropping pattern and conducting socio-economic survey of the household with the help of a special prepare schedule, supplement the information by personal observations and reasoned perceptions

(Minimum 50 Households)

Procure a Toposheet map of R.F. 1:50,000 or 1:25,000 scales to study the settlement selected in its regional setting. Collect demographic, social & economic data of the village/town from latest census reports to study the temporal changes in the profile or such characteristics. Prepare the settlement site map through rapid survey to maps the residential, commercial, recreation (parks and playgrounds), and educational, religious and other prominent features. Based on results of the land use and socio-economic enquiry of the households, prepare a critical project report. Photographs and sketches in addition to maps and diagrams may supplement the report.

Note: Department will allots supervisor and each student submit Socio Economic Survey Project Report (70-100pages)

Reference:

1. Cole, John P. and Cuchlaine, A.M. King, Quantitative geography: Techniques and theories in geography, John Willey and Sons Ltd., London, 1970.
2. Turabian, Kate L., A manual for writers of term paper, theories and dissertations, University of Chicago press, Chicago, 1973
3. Yohng Pauline V., Scientific Social survey and Research: An introduction to the Background, content, methods, principles and analysis of social studies, Prentice-Hall of India Private Ltd., New Delhi, 1982
4. Kothari, C.R., Research Methodology, Methods and Techniques, Wiley Eastern Ltd., New Delhi
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M.A./M.Sc. Geography (Final)

Practical

Practical - II : Quantitative Methods in Geography and S.P.S.S.

Unit - I

Relevance of quantitative methods in Geography. Scales of measurement: nominal, ordinal interval and ratio. Sources of Geographical data. Ganising and presenting data.

Unit - II

Application of measures of Central tendency: Mean-median-and mode, quartile, percentile. Measures of S.Kewness. Application of measures of dispersion: Range, mean deviation. Standard deviation and coefficient of variation.

Unit- III

Measures of dissimilarity and diversification Index. Gini coefficient and Lorenz curve, Sampling, Techniques for Geographical Analysis : Type, methods, size. Objective and Methods of sampling.

Unit - IV

Geographic, relationship-co-rrelation. Carl person co-relation, Spearman's Rank, Co-rrelation. Regression: Meaning, Definition, Concept and Types. Regression Analysis: Linear regaression.

Unit - V

Chi-square test using contingency tables, 't' and 'f' test,,ANOVA, SPSS : Introduction.

Practical Exercise:

1. Application of SPSS package in analyzing, real data set of any region or group of households for the following :
 - (a) Data Management.
 - (b) Data transformation.
 - (c) Statistical analysis.
 - (d) Plotting graphs and charts.
2. Record work should atleast contain 30 exercises, submitted regularly after completion of each topic/sub-topic.

Reference :

1. Chou, Ya-Lun, Statistical Analysis: With Business and Economic Applications, Holt, Rinehart and Winston, New York, 1975.
2. Cole, J.P. and C.M.A. King, Quantitative Geography: Techniques and Theories in Geography, John Wiley and Sons Ltd., London, 1970.
3. Gregory, S., Statistical Methods and the Geographer, Longman Group Ltd. London, 1978.

4. Novusis marija J. SPSS base System User's Guide, SPSS Inc., Chieago, 1992.
5. Hammond, Robert and Patrick McCullagh, Quantitative Techniques in Geography: An introduction, Oxford University Pres, London, 1978.
6. Hebden, Julia, Statistics of Economists, Heritage Publishers, London, 1990.
7. Johnston, R.J., Multivariate Statistical Analysis in Geography, Longman Group Ltd. London, 1978.
8. Kundu, Amitabh, Measurement of Urban Processes: A study of Regionalisation, Popular Prakashan Private ltd., Bombay, 1980.
9. Silk, J., Statistical Concepts in Geography, George Allen and Unwin, London, 1980.
10. Wilson, A.H. and M.J. Kirkby, Mathematics for Geographers and Planners, Oxford University Press London, 1982.
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