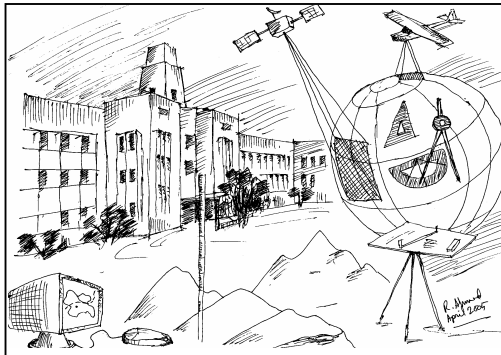


**DEPARTMENT OF GEOGRAPHY AND
ENVIRONMENTAL STUDIES**

**Syllabus for Masters of Science
Session 2008-2009**



**University of Rajshahi
Rajshahi-6205
BANGLADESH
www.ru.ac.bd**

Syllabus for M. Sc.

**Session 2008-2009
Examination 2009**

**Department of Geography and Environmental Studies
University of Rajshahi**

The M.Sc. Examination in Geography (**Group A- Non thesis**) consists of **Five** theory courses carrying **100** marks each, practical examinations of four days duration carrying **200** marks (including records of field works), **50** marks for tutorial and terminal tests, and **50** marks for viva-voce. Total 800 marks.

The M.Sc. examination in geography (**Group B- Thesis**) consists of a dissertation carrying **200** marks, **Five** theory courses including a course relating to the field of dissertation each carrying **100** marks, **50** marks for tutorial and terminal tests, and **50** marks for viva – voce. Total 800 marks. As a non-credit course completion of practical classes and obtaining pass marks in the practical examinations is mandatory for the students of thesis group. Subject to the approval of the Academic Committee, candidate may be offered in this group.

Candidates will have to take at least two theory courses from each of the following sections.

M. Sc. Examination 2009

Section- A

Course No.	Title of Courses	Full Marks
Geog. 501:	Advanced Climatology	100
Geog. 502:	Agriculture Geography	100
Geog. 503:	Environmental Impact Assessment	100
Geog. 504:	Flood and River Management in Bangladesh	100
Geog. 505:	Fluvial Morphology	100
Geog. 510:	Oceanography and Marine Resources	100
Geog. 511:	Remote Sensing and Its Application in Resource and Environment Management	100
Geog. 512:	Rural Geography & Planning	100

Section- B

Course No.	Title of Courses	Full Marks
Geog. 506:	Geographical Information System	100
Geog. 507:	Geography of Gender	100
Geog. 508:	Geography of Migration and Refugee Problems	100
Geog. 509:	Geography of Settlement and Housing	100
Geog. 513:	Transport Geography	100
Geog. 514:	Urban Geography	100
Geog. 515:	Urban and Regional Planning	100

Course-501: Advanced Climatology

Full Marks: 100

1. Climate and Weather: Macro and micro climates. General description of the elements and factors of macroclimates.
2. Explanatory and descriptive classification of climates of different types. Climatic regions and their environmental aspects:
 - a) Low latitude climates. Climates of equatorial humid, littoral, tropical desert, steppe, western coastal desert, tropical wet and dry types.
 - b) Mid-latitude climates of subtropical humid, western marine coastal, Mediterranean, mid-latitude desert and steppe, continental humid type.
 - c) High-latitude climates of continental sub arctic, tundra, ice cap types.
 - d) Highland climates.
3. Micro climate: Radiation, sun rays, light and temperature; evaporation and humidity, wind and precipitation. Modification of climate and weather; wind breaks; artificial stimulation of rainfall, reduction of evaporation, frost prevention.
4. Climate and Water Resources: Hydrological cycle, runoff and floods. Climatic factors of floods.
5. Climate and Agriculture: Temperature and crops, frost free season. Moisture-water budget. Thornwait, Penman, Doorknob and Pruitt's methods of determination of evapotranspiration and drought. Sunlight, wind and phonology.

6. Climate and Forestry.
7. Climate and Animals: Mammalia, natural (habitat) environment; domestic animals. Flying animals-birds, insects, reptiles and soil dwellers.
8. Climate and human heat balance, water balance, physical feeling-discomfort chart, comfort chart, operative temperature. Clothing insolation and clothing zones. Climate and house, food, clothing, cleaning, gardening. Human health, direct effect- beneficial and detrimental, indirect effect.
7. Climate and Building: Climate and architect-thermal consideration, ventilation and wind pressure, day heightening factors, precipitation dampness aspect; climate and site, conditioning by climate and design, indoor climate, heating and cooling. Elementary climatic classification of housing.
Climate and its relation to industry, communication, transport, commerce, airways, waterways, railways and roads, and military operations.

Course-502: Agriculture Geography
Full Marks: 100

1. Nature, scope and methodology of agriculture geography.
2. Origin, growth and development of agriculture with special reference to the impact of socio-economic changes and technological innovations.
3. Sources of agriculture data, problem of data collection and use.
4. Agricultural System and Region: Brief study of agricultural system in different regions of the world in relation to different natural and cultural milieu.

5. Agricultural Classification: Methods of classification, its problems and conflicts, land classification and use; classification types of farming.
5. Agricultural Marketing: Nature of market, structure and attributes of market organization, national and international marketing policies.
6. Models of agricultural location, various types of location theories with modern extension.
8. Pattern of Distribution: The agricultural region, single enterprise distribution, multiple enterprise distribution, trend surface analysis, regional analysis.
8. Geographic Setting and Land Resources in Bangladesh. Agrarian structure. Historical evolution of land tenure in Bangladesh. Present land tenure system in Bangladesh. Social change and problems of agricultural development in Bangladesh. Agricultural crops, means of increasing agricultural production. Adoption of new technology in Bangladesh Agriculture.

Course-503: Environmental Impact Assessment
Full Marks: 100

1. Origins of EIA; development, purpose and aims of EIA.
2. The EIA process, key elements and stages in this process
3. Methods of Impact Assessment: checklists, matrices, networks and overlays.
4. The EIA planning process, the decision-making process and public participation; understanding of the strengths and limitations of EIA.
5. Mitigation & Impact Management; Link between EIA process and Mitigation
6. Environmental Management Plan.

7. Preparation, presentation and review of EIA Report.
8. Strategic Environmental Assessment, contribution of EIA and SEA to sustainable development: Environmental Sustainability Index.

National Environmental Policy and Environmental Management Plan of Bangladesh.

Course-504: Flood and River Management in Bangladesh
Full Marks: 100

1. Physical and topographical features of Bangladesh and flooding.
2. Floods: Concepts, causes, types and consequences.
3. Floods: Estimation and control measures.
4. Floods in Bangladesh.
5. River systems in Bangladesh and its management.
6. River management policies and problems in Bangladesh.
7. Impact of flood control and damage on environment.

Course-505: Fluvial Morphology
Full Marks: 100

1. Definition, scope, methodology and basic concepts.
2. Fluvial Processes: Characteristics, measurement and analysis, frequency concept of fluvial processes, frequency distribution and fluctuation of flow, flood frequency.
3. Channel Form: Hydraulic geometry of channel, cross section and long profile characteristics, equilibrium and channel geometry, channel pattern, mechanism and adjustment.

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4. Water in the Channel: Hydraulics of channel flow, analysis of the characteristics of discharge and flood.
7. Sediment in the Channel: Movement of sediment load, computation and measurement, formation of flood plain, delta, river terraces and alluvial fan.
6. Drainage Basin: Topographic characteristics, quantitative analysis, association between the characteristics. Drainage basin mechanism.
7. Fluvial Characteristics in Bangladesh: Hydrology and river system-morphology and sediment analysis.

Course-506: Geographical Information System
Full Marks: 100

1. Introduction to computer, GIS and Geography
2. Geographical information system (GIS); its benefit, development, fundamental components and functions. Types of GIS, hardware and software of GIS.
3. Spatial Data: Entities and fields; characteristics of Spatial data, sources of spatial data, data collection methods and the use of GPS. Spatial data models and spatial data structures.
4. Attribute Data Management: Attribute database models or structures, creating a database, GIS database applications.
5. Data Input and Editing: Methods of data input, data editing and integrated database. Computer cartography: Topographic and thematic mapping. Fields of application of GIS.
6. Data Analysis: Measurement in GIS- lengths, perimeters and areas. Queries, reclassification, buffering and neighbourhood function. Analysis of discrete entities in space and basic classes of operation for spatial process modeling.

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7. GIS Project Design and Management: Problem identification, designing a data model, projects management, implementation problems and project evaluation.

Course-507: Geography of Gender
Full Marks: 100

1. Introduction: Importance of gender study in geography. Some definitions. Separating gender and women.
2. Theoretical Approaches: The development of theoretical approaches in the study of gender and geography. Role, theory and the early consideration of gender. Feminist analyses - socialist and radical patriarchy and its importance in theoretical understanding of gender relations.
3. Contemporary Gender Theory: More recent debates surrounding postmodernism and the geography of gender and difference; Gender identity; changing ideas of masculinity and femininity.
4. Gender and the City: Gender divisions and the development of urban spaces.
5. Gender and domestic labour.
6. Planning, Urban Development and Gender Inequality: Policy and planning responses to gender divisions in the use of space.
7. Gender and Recreation: Gender difference in participation in sport and recreation Space and leisure
8. Gender and the rural environment. Gender relations in the rural society and economy
9. Gender and Politics: An examination of the unequal representation of women and men in global and national politics Welfare state.

Course-508:
Geography of Migration and Refugee Problem
Full Marks: 100

1. Migration: Concept and definition, scope of migration studies, migration and circulation, classification, typologies.
2. Data and Statistics: Sources of data, nature of migration data, migration estimation procedure.
3. Theoretical Aspects of Migration Studies: Ravenstein's Law. Lee- Ziff's hypothesis, Stouffer's intervening opportunity model. Systems Approach: Theory of Rural-Urban Migration.
4. Internal Migration: Types and causes, determinants, streams, past & present; selectivity of migration, consequences and policies.
5. International Migration: Types, causes, selecting migration, major policies, overseas migration from Bangladesh. Gender and migration.
6. Migration Policies: Definitions, aims, objectives, historical background, migration policies in developed & developing countries. Gender and migration.
7. Population Redistribution: Internal & international redistribution of population, refugee migration and labour migration. Problems of urbanization. Internal displacement problems.

Course-509: Geography of Settlement and Housing
Marks:100

- A. Geography of Settlement:
1. Introduction, definitions, scope and methods of settlement geography.

2. Analysis of Human Settlement: Number, sizes, classification and morphology.
3. Settlement System: Process and forms of settlement system, regions of settlement dimensions and deformations, dynamic systems.
4. Theories of Settlement: Basic theories, nature and goals of settlement; spatial human needs, forces shaping settlements, structure and forms, texture and density.
5. Morphology of Human Settlement: Static and dynamic.
6. Selected Problems of Settlements: Land use pattern, problems of settlement- population, housing, health, education, transportation and communication, environment and ecology.
7. Settlement Planning: Pattern of land management and land use control, concepts and application.

B. Geography of Housing:

1. Priority of Housing and Its Management: Housing supply and cost, Housing management
2. National Housing Situation and Planning: Urban housing, Rural housing

C. Settlement and Housing Problems:

Settlement and housing problems in Third World countries with special reference to Bangladesh.

Course-510: Oceanography and Marine Resources

Marks: 100

A. Oceanography:

Definition, distribution of world land and water bodies. Oceans-nomenclature, shape, size and volume. Elementary

knowledge on the origin of oceans and ocean water. Composition of ocean water.

Relief of the ocean floor-continental shelf, continental slope, mid-ocean ridge, gyot, sea mount, deep sea plain and trenches. Temperature and salinity of ocean water- horizontal and vertical. Distribution of temperature and salinity in different oceans, wave and currents-causes and effects. Movement of water-horizontal and vertical. Distribution and characteristics of ocean currents, tide-origin. Tidal waves-spring and neap tides. Oceanic deposits-classification. Characteristics of different types. Distribution of deposits in different oceans. Coral reefs-origin, classification and characteristics of different types. Region of the oceans, Basis of classification. Characteristics of the regions.

B. Marine Resources:

Ocean water as a resource. Territorial and international water. Mineral resource. Flora and Fauna, petroleum and natural gas. Tidal waves and currents as sources of power. Windy sea coast as the sites of generation of power by wind mills. Salt and salt manufacturing coastal areas. Oxygen and nutrient concentration areas of oceans. Fish resources-fishing grounds & fishing industries. Ocean-weather-climate. Ocean as a medium of transportation and communication. Ocean as a recreational area- beach. Oceans and defence of nations. Pollution of ocean water. Oceanographic characteristics of the Bay of Bengal.

Course-511: Remote Sensing and its Application in Resource and Environment Management

Full Marks: 100

1. Concept and foundation of remote sensing
2. Elements of photographic system

3. Introduction to visual image interpretation
4. Basic principles of photogrammetry
5. Multispectral, thermal and hyper spectral sensing
6. Earth resource satellites operating in the optical spectrum.
7. Digital Image Processing: Image restoration, image enhancement and image classification, classification accuracy assessment.
8. Microwave Sensing.
9. Application of Remote Sensing: Resource mapping, agriculture and forest management, soil mapping, geological structure identification, water resource mapping, urban study, environment change and weather monitoring, coastal zone management.
10. Application of remote sensing in Bangladesh.
Ethics, regulations and international bodies regarding remote sensing.

Course-512: Rural Geography and Planning
Full Marks: 100

1. Rural Geography: Basic concept and scope of rural geography.
2. Rural Depopulation: Types & causes of depopulation.
3. Land Management and Land Reforms in Bangladesh.
4. Rural Settlement: Pattern and characteristics.
5. Structural Changes in Agriculture: Structural changes in Great Britain, and West Europe, HYV technology in Bangladesh.

6. Rural Marketing: Marketing channel; growth and changing nature of the rural markets in Bangladesh. Marketing structure in rural Bangladesh and in China.
7. Theories, models and approaches of rural development.
8. Rural Development in Bangladesh: Foreign aid and rural development, rural credit and banking, Co-operative and Rural Development Board, Rural manufacturing.

Course-513: Transport Geography
Full Marks 100

1. Geographical Studies of Transport: Definition, object and scope of transport geography, concept of distance, function of transport.
2. Nature and Mode of Transport: Nature of transport: Freight and passenger, significance of transport, types of movement, physical components, and modal characteristics.
3. Network Analysis: Functional explanation of network, classification of network, elements of topological graph, network description, geographical basis of nodes and their locational arrangements.
4. Transport Costs and Location of Economic Activities: Transport cost, location theories and transport, Von Thunen, Weber, Pandler, role of transport in spatial readjustment and regional development.
5. Urban Transport Development: Urban transport pattern, transportation and landuse, transportation and urban growth, transportation within the city, urban transport problems, inter urban transport, Transportation in the third world cities.

6. Transport and the Environment: Transport technology and environment, impact of transport on environment, transport and depletion of natural resources.
7. Development of Transport in Bangladesh: Evolution of mechanized means of transport in Bangladesh, development of transport in different periods, colonial, Pakistan and post-liberation period, nature of urban and rural transport in Bangladesh, recent transport development under dependent economy.

Course-514: Urban Geography
Full Marks: 100

1. The Field of Urban Geography: Development, scope and methodology
2. The origin and growth of cities, urbanisation and its causes, characteristics and trends. Early, medieval and modern urban forms.
3. Cities as Macro System: Cities as system, Central Place Theory-basic concept and recent development. City-size distribution, rank-size rule and primacy. Functional classification of urban centers, urban economic base studies.
4. Cities as Micro System: Site and situation, the city and its nodal region, factors and processes in the location of urban functions, urban land value, land use and functional zones, classical models of urban growth and internal structure. Social and physical dimensions of the cities. Changing pattern of residential, commercial and industrial locations in cities, distribution and dynamics of urban population, concept of social area and the techniques of social area analysis, approaches to the study of urban social geography.

5. Urban Transport: Nature of urban traffic type, flow and volume, the dynamics of urban traffic and movement pattern, traffic and land use.
6. The urban scene, urban environment, and the problems of urban planning in Bangladesh.

Course-515: Urban and Regional Planning
Full Marks: 100

A. Urban Planning:

1. Definitions, scope, objectives and guiding principles of urban planning.
2. Methods and Techniques of Urban Planning:
 - (a) Methods of planning process (CPP).
 - (b) Planning survey (SPT).
3. Analysis of urban planning:
 - (a) Plan evaluation.
 - (b) Plan design.
4. Tools of Plan Implementation:

Statutory plan, zoning plan, building code, sub-division regulations, people's participation.
5. Contemporary Urban Planning:

Urban poverty, housing and real estate, urban, transport, urban fringe, development, urban renewal, urban governance.

B. Regional Planning:

1. The Region and Regional Planning: Concepts, definitions, scope and objectives of regional planning.

2. Inter-regional Analysis: Regional accounts, descriptive regional planning.
 3. Theoretical Basis of Regional Planning:
 - (a) Regional Change (short run): Economic base theory, regional input-out analysis, planning balance sheet.
 - (b) Regional Growth (Long run): Growth from inside, growth from out side, regional growth- convergence or divergence, social and political factors in regional growth. Location of industry- industrial location theory, least cost approach. Market area analysis.
 - (c) Growth Pole Theory: Growth pole theory and regional planning.
- C. Practice of Urban and Regional Planning:
1. Urban and Regional Planning: An integrated process of spatial development.
 2. Urban planning practice in Bangladesh. Master plan, town development plan, slum upgrading programme.
 3. Regional Planning Practice in Bangladesh Project based Planning: Barind development project, GK project, hill area development project, health and nutrition programme, family planning programme, physical resources planning.

Course-516: Practical Lab. Exercise-I
(Application of Quantitative Techniques in Geography)
Full Marks: 75

Measurement of data: Mode of occurrence of data according to levels of measurement.
 Application of measurement of data, and frequency distribution tables in geographic analysis. Importance of histogram,

frequency polygon, frequency curves, ogives, lorenz curves and n-dimensional diagrams.

Applications of the techniques of measurement of dispersion and their uses in geographical analysis.

Tests of shape, nature and skewness of data.

Uses of correlation and regression and significance tests. Calculation of residuals, the standard error of estimate and their uses in reformulating hypotheses.

Application of the concepts of probability and probability distribution in geographic analysis.

Techniques of determining the sampling frame and size, calculation of sampling error of estimate, estimation of probability distribution of population based on pilot survey for sampling.

Hypothesis tests; parametric and non-parametric tests, null hypothesis, alternative hypothesis, degrees of freedom, levels of significance. One tailed and two tailed tests and probability. Test of error- type I & II. Techniques of application of parametric tests for different cases of sampling. Comparison of two independent sample means, comparison of two correlations, problems of normal distributions, tests of proportions. Tests of single sample ratio. Test of two proportions, 't' tests: one-tailed and two-tailed tests of 't'. Comparison of two sample means. Test of significance of sample correlations. 'F' test or analysis of variance (ANOVA): Comparison of means of more than ($k > 2$) two, comparison of two equality of variance. χ^2 tests: Test of goodness of fit; test statistic, test of goodness of fit with normal distribution. χ^2 test for single sample, test of independence in a contingency table; χ^2 tests and 2×2 contingency table. Kolmogorov-Smirnov test (D), Mann-Whitney- 'U' test.

Course-517: Practical Lab. Exercise II

Full Marks: 75

- A. Topographical maps of Bangladesh and other countries. Study of cultural aspects with special reference to land use, settlement and communication networks, land utilization maps of selected countries.
- B. Study of land utilization map.
- C. Network analysis: Topological classification, linear networks, elementary graph theoretic measures of structure, centrality and shape. Network as index of the economic development.

Course-518: Micro Region Survey: Land Use

Full Marks: 50

Important : Students have to submit their records of practical works and report of field studies before the commencement of practical examination.

Books recommend:

- Abler, Adams, J. and Gould, P.: Spatial Organization: The Geographer's Views of the World.
- Adams, W.M.: Green Development: Environment and Sustainability in the Third World.
- Ahmad Kamruddin (1975): A Socio-Political History of Bengal. Dhaka: Inside Library.
- Ahmad, Nafis (1976): A New Economic Geography of Bangladesh, Vikas, New Delhi.
- Ahmad, Q.K. et al (ed.) (2000) Perspective on Flood 1998, UPL.
- Ahmed, K.S.: Simple Map Projection
- Ahmed, Nafis: Muslim Contributions to Geography.
- Ahmed, Salahuddin (2004) Bangladesh- Past and Present: Paragon Publishers; Dhaka. Asiatic Society of Bangladesh; Second Edition.
- Aime Vincent Perpillon: Human Geography, Longman.
- Alexandersson, G. (1964) Geography of Manufacturing, Prentice-hall, inc.
- Ambrose, Peter: Analytical Human Geography.
- Arms, Karen (1996): Environmental Science; Holt, Rinehart and Winston Inc. N.Y.
- Ashton. T.S. (1972) The Industrial Revolution 1760-1830. Oxford University Press, London.
- Avery, T.E.: Interpretation of Aerial Photographs, Burger Publishing Co. USA, 1965.
- Balc, John. (1981) The Location of Manufacturing Industry, Olives & Boyd.
- Baver, L.D.: Soil Physics, John Wiley and Sons, Inc. New York.
- Berry & Chorley: Atmosphere, Weather and climate
- Blunden, J. et al.: Fundamentals of Human Geography, Harper & Row, London, 1979.
- Brammer, H.: The Geography of the Soils of Bangladesh, University Press Ltd. Dhaka.
- Brinton, C. et al.: A History of Civilization. Prentice Hall, N.J. 1976.

Brown R.P. & Brown B.W.(1980): Mathematics: Applied to Business & the Social Sciences, Wadsworth Publishing Company.

Bungee, William: Theoretical Geography.

Burrough, P.A.: Principles of Geographical Information Systems for land Resource Assessment, Oxford: Clarendon Press.

Burton, I and Kates, R.W.- Readings in Resource Management and Conservation.

Bygott, John: An Introduction to Mapwork and Practical Geography

Chisholm, M. (1970): Geography and Economics, G. Bell.

Chorley, R.J. and Haggett, Peter: Frontiers in Geographical Teaching.

Chowdhury, Abdul Momin (1967) Dynastic History of Bengal: c. 750-1200 A.D.; (includes an outline discussion of pre-750 AD period) Asiatic Society of Pakistan; 'Dacca'.

Crithfield, H.: General Climatology, Prentice Hall, New York.

Darlington: Zoogeography.

DeBlij H.J.: Human Geography Culture, Society & Space, Wiley, 1977.

Dickinson, G.C.: Maps and Air Photographs, Edward Arnold, 1967.

Dickinson, R.E.: City and Region.

Dickinson, Robert E.: The Makers of Modern Geography.

Emays, Jones: Human Geography, Chatto and Windus, London.

Estall, R.C. & Buchanan, (1977) Industrial Activity and Economic Geography

Finch, V.C. (et.al): Physical Geography; McGraw Hill, New York.

Gates, E.S.: Meteorology and Climatology, George G. Harrap & Co. Ltd. London.

Gay P & Webb R.K: Modern Europe since 1815, Harper.

Gottfried, B.S (1991) Theory and problems of programming with Basic: Tata Mc- Graw-HallPub.Company Ltd, India.

Gregory et.al: Drainage basin: forms & Process.

Griffiths, J.F.: Applied Climatology: An Introduction, O.U.P.

Haggett, P.: Geography: A Modern Synthesis.

Haggett, P.: Locational Analysis in Human Geography.

Hardy, M.E., The Geography of Plants, Clarendon Press, Oxford, 1920.

Haroun-er-Rashid: Geography of Bangladesh, UPL, Dhaka.

Hartshorne, R.: Perspective on the Nature of Geography.

Harvey, David: Explanation in Geography.

Harvey, J., (1989): Mastering Economics, Macmillan Edu. London.

Healey & Ilbery, (1990) Location and Change. Oxford University Press, London.

Herbertson, A.J.: The Major Natural Regions of the World, Geographical Journal XXV (1905).

Holmes, A.: Principles of Physical Geology.

Hoyle, B.S (ed) (1973) Transport and Development.

Islam, M. Aminul: Government, Landuse & Natural Hazards in Bangladesh, University of Dhaka.

Islam, Sirajul (1997) History of Bangladesh: 1704-1971 (3 volumes);

Islam, Sirajul (2003) Banglapedia: National Encyclopaedia of Bangladesh: 10 vols.; Asiatic Society of Bangladesh.

J.O.M. Brock & Webb: A Geography of Mankind, New York.

James P.E. A: Geography of Man Blaisdall Publishing Company.

Jarrett. H.R. (1977) A Geography of Manufacturing. Macdonald & Evans

Johnson, B.L.C (1975): Bangladesh, Heinemann, London.

Johnston, R.J.: Multivariate Statistical Analysis in Geography, Longman, USA.

Kannan, K.: Fundamentals of Environmental Pollution.

Karim, Abdul (1977) Banglar Itihas: Sultani Amal: (History of Bengal During Sultanate Period); Bangla Academy; Dhaka; (in Bengali)

Kliot, Hurst (ed) (1974) Transportation Geography: comments and readings.

Koeppe, C.E. and De Long. G.C.: Weather and Climate, MaGrow Hill, New York.

Koromondy, E.J.: Concept of Ecology.

- Lockwood: World Climatology: An Environmental Approach.
- Lowe, J.C & Moryadas (1975) The Geography of Movement Houghton Mifflin Company, Boston
- Mahmood, A.: Statistical Methods in Geographical studies, Rajesh Publications, India.
- Marbat, C.F.: Soils: Their Genesis and Classification, USA.
- Mather, P.M.: Computer Applications in Geography, Chichester: John Wiley & Sons.
- McGuire, D.J.: Computers in Geography, New York: Longan Scientific & Technical.
- Miah, M. (1989): Flood in Bangladesh, Academic Publishers, Dhaka, December.
- Michael Borok and Greg. O.Hare: The Third World: Conceptual Frameworks in Geography, Oliver and Boyd.
- Minshull, Roger M.: The Changing Nature of Geography
- Mitchel, B. : Geography and Resource Analysis.
- Monkhouse, F.J.: Maps and Diagrams
- Mountjoy, S.B. (1966) Industrialization and Underdevelopment Countries. Hutchinson, London.
- Muir, R.: Modern Political Geography, London, 1975
- National Academy of Sciences USA : The Science of Geography.
- National Curriculum and Textbook Board (2002): History of Bangladesh and Ancient World Civilizations; Dhaka, Second Edition.
- Nebel, B.J. & Wright, R.T. (1996): Environmental Science: The Way the World Works; Fifth Edition, Prentice Hall, N.J.
- Newbigin, Marion., Plant and Animal Geography, Methuen and Co. Ltd. London, 1968.
- O' Brien, J.A.(1986). Computers and information processing, Richard D. Irwin.inc. USA.
- Omara- Ojungu, P.H.: Resource Management in Developing countries.
- Palmer, R.R. (ed): Atlas of World History; Rand Mc Nally, N.Y.
- Patric, J.Mc. Bridge: Human Geography, Principles, Processes and Patterns, Blackie and Sons Ltd.
- Peuquet, D.J. & Duane, F. Marble: Introductory Readings in Geographic Information Systems, London: Taylor & Francis.
- Polunin, Nicholas: Introduction to Plant Geography, Longmans, Green and Co. Ltd. London, 1967
- Pounds, N. (1981) Economic Geography. John Murvay.
- Pounds, N.J.G.: Political Geography, McGraw Hill, 1972
- Raize, E.: General Cartography
- Ray Atul Chandra (1968) History of Bengal: (Mughal Period 1526-1765) Nababharat Publishers; Calcutta.
- Rice, R.J. Fundamentals of Geomorphology.
- S. Gregory: Statistical Methods and the Geographer, Methuen, New York, USA.
- Silk, G. : The Big Bang: The Creation and Evolution of the universe: W.H. Freeman
- Singh, R.L.: Elements of Practical Geography.
- Singh, S. (1991): Environmental Geography; Prayag Pustak Bhawan, Allahabad, India.
- Sircar D.C. Studies in the Geography of Ancient and Medieval India, Varanasi, 1960.
- Small, R.J.: The Study of Landforms, Cambridge University Press.
- Smith, D.M. (1970) Industrial Location, Wiley International, London.
- Smith, V. I. (1989) History of India, Oxford University Press.
- Snow, T.P.: The Dynamic Universe: An Introduction to Astronomy: West Publishing company.
- Stein, E.I.: First course in Fundamentals of Mathematics. Allyn & Bacon, Inc. 1973.
- Strahler, A.H.: Geography and Man's Environment, New York, John Willey & Sons.
- Strahler, A.N. Principles of Physical Geography.

Strahler: Physical Geography.
 Taylor, Griffith: Geography in the Twentieth Century.
 Taylor, P.J.: Quantitative Methods in Geography. Houghton Mifflin Company, London.
 Thornbury, W.D.: Principles of Geomorphology; John Wiley, London.
 Tozar, F. : History of Ancient Geography.
 Trewartha, G.T.: An Introduction to Climate .
 Wadia, D.N.: Geology of India, Macmillan & Co, London.
 Yeates, M.: An Introduction to quantitative Analysis in Human Geography, McGraw Hill Inc.
 Zimmerman, E.W.: World Resources and Industries.
 Zvnv, Gg.G. : ivR%bwZK f,†Mvj, ivRkvnX, 1988
 Bmjvg, Gg. Av.: mæú` e`e`'vcbv|
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 XvKv wek!we`vjq|
 Zvnv, Gg.G.: gvbweK f,†Mvj
 Avn†g`, iwdK: Avenlqv I Rjevqy weÁvb|
 û†mb, gKeyj: mgy`a`we`v|

nK, †gvnvæš` jyrDzj I ingvb, †gv`—vwdRyi (1994): AvaywbK
 A_©bxwZ, evsjv†`k eyK K†c©v†ikb, XvKv|
 Avjx, †gv. gvmyg I Avjg, †gvt byi"j (1995): evsjv†`†ki A_©bxwZ,
 AvBwWqvj jvB†e^aix, XvKv|
 Bjvnx, gD`y`, : cwimL`vb cxwZ I `vwbK we†k-IY|
 Avjx, †K. (1995): evsjv†`k I cvK-fvi†Zi BwZnm, Avjx
 cvewj†Kkb, XvKv|
 mvjvDwlb, Gg. (1994): evsjv†`†ki gyw³ msMÖv†gi BwZnm,
 1947-71|
 ReŸvi, †gvnvæš` Avāy: Zviv cwiwPwZ, evsjv†`k
 A`v†:†v†bvvgK`vj A`v†mvwm†qkb|
 †PŠayix, wmivRyj Bmjvg, A_©bxwZK f,†Mvj, Xv. we. XvKv|
 nvmb, gvneye I Ab`vb`, evsjv†`k cÖvK...wZK f,†Mvj I cwi†ek,
 evsjv GKv†Wgx, XvKv|
 Bvgv, e`i"j, evsjv†`†ki LwbR mæú`, evsjv GKv†Wgx, XvKv|
 Avn†g`, iKxe, Gwiqvj d†UvMÖvd B`UviwcÖ†Ukb I
 d†UvMÖv†gwU^a
 evsjv†cwWqv, GwkqvWUK †mvmvBwU KZ...©K msKwjZ|
 Avey Zvnv, AvKvka,,Z gvbwPÍ I †bUIqvK© we†k-IY, iv.we.,
 cÖKvkbv `Bij|