M.A./M.Sc. (GEOGRAPHY)
SCHEME OF EXAMINATION - 2013

Each Theory Paper 3 Hrs. duration 100 marks

Dissertation / Thesis / Survey Report / Field work, if any 100 marks

1. The number of paper and the maximum marks for each paper, practical shall be shown in the syllabus for the subject concerned. It will be necessary for a candidate to pass in the theory part as well as in the practical part (wherever prescribed) of a subject/Paper separately.

2. A candidate for a pass at each of the Previous and the Final Examination shall be required to obtain (i) at least 36% marks in the aggregate of all the papers prescribed for the examination and (ii) at least 36% marks in practical(s) wherever prescribed at the examination, provided that if a candidate fails to secure atleast 25% marks in each individual paper work, wherever prescribed. He shall be deemed to have failed at the examination not with standing his having obtained the minimum percentage of marks required in the aggregate for that examination. No division will be awarded at the Previous Examination; Division shall be awarded at the end of the Final Examination on the combined marks obtained at the Previous and the Final Examination taken together, as noted below :

   First Division 60% of the aggregate marks taken together of
   Second Division 48% the Previous and the Final Examination.

   Rest will be declared to have passed the examinations.

3. If a candidate clears any paper(s), practical(s)/Dissertation prescribed at the Previous and/or Final Examination after a continuous period of three years, then for the purpose of working out his division the minimum pass marks only viz. 25% (36% in the case of practical) shall be taken into account in respect of such paper(s), practical(s), Dissertation are cleared after the expiry of the aforesaid period of three year, provided that in case where a candidate require more than 25% marks in order to reach the minimum aggregate as many marks out of those actually secured by him will be taken into account as would enable him to make the deficiency in the requisite minimum aggregate.

4. The Thesis/Dissertation/Survey Report : Field Work shall be typed & written and submitted in triplicate so as to reach the office of the Registrar at least 3 weeks before the commencement of the theory examination. Only, such candidates shall be permitted to offer dissertation/Field work/Survey report. Thesis (if provided in the scheme of examination) in lieu of a paper as have secured at least 55% marks in the aggregate of all scheme, irrespective of the number of papers in which a candidate actually appeared at the examination.

N.B. (i) Non-Collegiate candidates are not eligible to offer dissertation as per provision of 0.170-A.

(ii) A Candidate failing in previous examination may be provisionally admitted to the final class, provided that he pass in at least 50% papers, as per provisions of 0.235.

(iii) A candidate may allow grace marks in only one theory paper up to the extent of 1% of the total marks prescribed for the examination.

M.A./M.Sc. GEOGRAPHY- 2013

There will be four theory papers and a practical each in Previous and Final Examination. Each of the theory papers will be of 100 Marks. Each theory paper will be of three hours duration. Candidates will be required to pass both in Theory and Practical separately.

Note : A weekly seminar is to be arranged for M.A. Previous and Final Students.

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

Paper-I	-	Evolution of Geographical Thought
Paper-II	-	Advanced Physical Geography
Paper-III	-	Principles and Theory of Economic Geography
Paper-IV	-	(a) Geography of Environment, or
		(b) Quantitative Techniques in Geography

Practical :

Distribution of marks will be as follows :

1.	Laboratory and Map work test (3 hours duration)	40 marks
2.	Record Work	25 marks
3.	Viva-Voce	10 marks
4.	Project Report & Viva-Voce (20+05)	25 marks
	Total	**100 marks**

N.B. : 12 hours of teaching practical be provided per batch of 10 students per week.

Instruction for Geography Practical Examination :

1. The record work should have 50 sheets ($1/6^{th}$ of 20"×30") and they should cover the total syllabus proportionately. The teacher should give fresh exercise every time so that the students may not undertake tracing of old exercise. The work must be done in the class room and signed on the same date. This would discourage completing the whole work at the nick of the examination.
2. Viva-Voce Examination be held to judge the real knowledge of the students and to examine the authenticity of the record work. The marking on record work and its Viva-Voce be based on the original work of the candidate and not merely producing the record work get done by any other agency. Marks be deducted for the part of the syllabus not covered.
3. On an average about 20 students be examined in one day. In M.A. Previous as far as possible in one practical exercise be set to judge the practical skill.
4. The External Examiners, be provided syllabus and detailed instructions at the time of obtaining his consent. For M.A./M.Sc. Final a minimum of two days be fixed to conduct the examination.

Note : A copy of the instructions be sent to the examiners for their information.

M.A. / M.Sc. (Prev.)-2013
Paper – I Evolution of Geographical Thought

Duration : 3 hours Max. Marks – 100

Note : The question paper will contain three sections as under –

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. Total marks : 10

Section-B : 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. Total marks : 50

Section-C : 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted. Total marks : 40

UNIT – I

Definitions, scope, nature and purpose of Geography (including concepts) and its relation with other social sciences. Post War trends, Inter-disciplinary Trends, Recent trends in Geography. Development of Geography in India.

UNIT – II

Pre-Scientific Geographical ideas in Ancient and Medieval times : Indian influences. Geography of the Vedic Age and Geography of the Purana's (First four chapters of Geography of Purana's by S.M. Ali).

UNIT – III

Contribution by Greek, Roman and Arab Geographers (Al-Baruni and Ibn-I Batuta) The Emergence of scientific Geography in the 18^{th} and 19^{th} centuries.

UNIT – IV

Founders of modern Geography-Humboldt, Ritter, Leaders of the first generation after Ratzel, Richthofen, Hettner, Contribution of Vidal-de-la-Blache and Brunhes.

UNIT – V

Dichotomies in Geography : Physical and Human Geography, Determinism and Possibilism, Regional and Systematic Geography, Qualitative and Quantitative Geography. Theoretical and Applied Geography, Analytical and Synthetical Geography, Positivism, Functionalism, Idealism and Realism in Geography.

Books Recommended :

1. Minshull, Roger : The Changing Nature of Geography.
2. Hartshorne, Richard : Perspectives on the Nature of Geography. The Association of American Geographers, Hutchinson University Library, London.
3. Dikshit, R.D. : Geographical Thought A Contextual History of Ideas, Prentice Hall of India Pvt. Ltd.
4. Wooldridge & East : The Spirit and Purpose of Geography, Hutchinson University Library, London.
5. Dikshit, R.D. : The Arts Science of Geography, Integrated Readings. Prentice Hall of India, New Delhi, 1994.
6. Saxena, D.P. : Regional Geography of Vedic India, Granthan Rambag, Kanpur.
7. Harvey & Holly : Themes in Geographic Thought, Rawat Publications, Jaipur.
8. Husain, Majid : Evolution of Geographical Thought, Rawat Publications, Jaipur.
9 Haggett, P. – Geography : A Modern Synthesis, Harper International Ed.
10. हुसैन, माजिद : भौगोलिक विचारधाराओं का इतिहास, रावत पब्लिकेशन्स, जयपुर।
11. कौशिक, एस.डी. : भौगोलिक विचारधारायें एवं विधि तंत्र।
12. जैन, एस.एम. : भौगोलिक चिन्तन व विधि तंत्र, साहित्य भवन, आ गरा।

Paper – II Advanced Physical Geography

Duration : 3 hours Max. Marks – 100

Note : The question paper will contain three sections as under –

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. Total marks : 10

Section-B : 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. Total marks : 50

Section-C : 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted. Total marks : 40

UNIT – I

Geomorphology : Fundamental concepts. Factors controlling landform development; Endogenetic and Exogenetic forces; Denudation process:Weathering and Erosion. Geosynclines, Mountain Building, Continental Drift and Plate Tectonics

UNIT – II

Concept of Geomorphic Cycle ; Landforms associated with fluvial, glacial, arid, coastal and Karst topography. Slope-forms and processes; Environmental and Applied Geomorphology.

UNIT – III

Climatology : Composition and Structure of the Atmosphere; Insolation; Heat budget of the earth; Distribution of temperature; Atmospheric pressure and general circulation of winds; Monsoons and jet streams.

UNIT – IV

Stability and instability of the atmosphere; Air-masses; Fronts; Temperate and Tropical cyclones; Types and distribution of precipitation; Classification of world climates : Kopen's and Thornthwaite's schemes; Hydrological Cycle; Climate change and Global warming.

UNIT – V

Oceanography : Origin of ocean basins; Ocean Bottom relief of Indian, Atlantic and Pacific Oceans; Ocean deposits; Coral reefs; Temperature and Salinity of the Oceans; Density of sea water; Tides and ocean currents; Sea – level changes; Ocean's Mineral wealth.

Books Recommended :

1. Ahmad, E.: Coastal Geomorphology of India, New Delhi.
2. Wooldridge & Morgan : An Introduction to Geomorphology, Longmans, Green and Co., London.
3. Steers, J.A. : Unstable Earth, Methuen & Co., London.
4. Strahler, A.N. : Earth Sciences, Harper and Row Publishers, New York.
5. Strahler, A.N.: Modern Physical Geography, John Willey and Sons Inc. New York.
6. Dayal, P. : A Text Book of Geomorphology.
7. Kale, V.S. & Gupta, A. : Elements of Geomorphology.
8. Khan, M.Z.A.& Gangwale Sonal : Global Climate change, Rawat Publications, Jaipur, 2011
9. Singh, S. : Geomorphology, Prayag Publication, Allahabad, 1998.
10. Thornbury, A.K. : Gemorphology, Prentice Hall, New York.
11. Lobeck, A.K. : Gemorphology, McGraw Hill Book Co., New York.
12. King & Embleton : Glacial and Pre Glacial Geomorphology, Amold.
13. Cotton, C.A. : Geomorphology, John Willey & Sons, New York.
14. Jeffreys, H. : The Earth-Its Origin, History and Physical Constitution.
15. Sharma, H.S. (Ed.) : Perceptives in Geomorphology, Concept Publishers, New Delhi
16. सविन्द्र सिंह : भू-आकृति विज्ञान, वसुन्धरा प्रकाशन, गोरखपुर।
17. कौशिक, एस.डी. : भू- आकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ।
18. नेगी, एस.डी., : भू-आकृति विज्ञान, रस्तोगी प्रकाशन, मेरठ।

19. Barry, R.G. & Chorley, P.J. : Atmosphere, Weather and Climate, Routledge, London and New York, 1998.
20. Crichfield, J.H. : General Climatology, Prentice Hall, India, New Delhi, 1993.
21. Das, P.K. : Monsoons, National Book Trust, New Delhi, 1987.
22. Lal, D.S. : Climatology, Chaitanya Publications, Allahabad, 1986.
23. Robinson, P.J. & Henderson, S. : Contemporary Climatology, Henlow, 1999.
24. Thompson, R.D. & Perry, A. (Ed.) : Applied Climatology – Principles and Practice, Routledge, London, 1997.
25. Davis, Richard J.A. : Oceanography : An Introduction to the Marine Environment, Wm. C. Crown Lowa, 1996.
26. Duxbury, C.A. & Buxbury, B. : An Introduction to the World's Oceans, C. Brownlowa, 2nd Ed. 1996.
27. Garrison, T. : Oceanography – An Introduction to Marine Science, Books/Cole Pacific Grove, USA, 2001.
28. Sharma, R.C. : Oceanography for Geographers, Rajesh, New Delhi, 1985
29. Ummerkutty, A.N.P. : Science of the Oceans and Human Life, NBT, New Delhi, 1985.

Paper – III Principles and Theory of Economic Geography

Duration : 3 hours Max. Marks – 100

Note : The question paper will contain three sections as under –

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. Total marks : 10

Section-B : 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. Total marks : 50

Section-C : 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted. Total marks : 40

UNIT – I

Nature, Scope and Methods of Economic Geography, Concept of Economy, Simple model of economy, Impact of modern economy on environment. Spatial structure of economy.

UNIT – II

Types of Agriculture – Subsistence agriculture, Tropical plantation, Mediterranean agriculture, Mixed farming, Stock raising and its products.

Energy Resources of the world – Coal, Petroleum, Hydroelectricity and Atomic power. Energy Crisis, Non-conventional Sources of Energy.

UNIT - III

Locational analysis and spatial distribution of Iron and Steel, Cotton textile, Chemical, Paper and pulp industries. Development of marketing systems in the world and WTO.

UNIT – IV

Location and interaction in a simplified economic landscape. Spatial variation in transport cost. Spatial variation in production cost. Demand scale and agglomeration.

UNIT – V

Decision making process – a behavioural approach. Concept of economic region- formation and types. Economic regions of India.

Books Recommended :

1. Lloyd & Dicken : Location in Space : Theoretical Approach to Economic Geography.
2. Mc-Cart & Lindeberg : A Preface to Economic Geography.
3. Smith, D.E. : Industrial Location – An Economic Geographical Analysis.
4. Hodder & Lee : Economic Geography.
5. Berry Conkling & Ray : The Geography of Economic Systems, Prentice Hall.

6. Smith, J.C. & Philip, M.O. : Industrial and Commercial Geography, Henry Halt.
7. Bengston, N.A. & Royen M.V. : Fundamentals of Economic Geography, Prentice Hall, New York.
8. Alexander, J.W. : Economic Geography, Prentice Hall, New York.
9. Guha & Chatterjee : A New Approach to Economic Geography.
10. Renner, T.H. & Other : World Economic Geography.
11. Robinson, H. : Economic Geography, M.Sc. Donald, London.
12. Thoman, R.S. : The Geography of Economic Activity, McGraw Hill, New York.
13. Zimmerman E.W. : World Resources and Industries, Harper and Co., New York.
14. Robertson, D. (Ed.) : Globalization and Environment, E. Elgan Co., U.K., 2001.
15. Wheeler, J.O. : Economic Geography, John Willey, New York, 1995.
16. Dreze, J. & Sen, A. : India – Economic Development and Social Opportunity, Oxford University Press, New Delhi, 1996.
17. काशीनाथ सिंह, जगदीश सिंह : आर्थिक भूगोल के मूल तत्व, वसुन्धरा, गोरखपुर।
18. पुरूषोतम जैन : आर्थिक भूगोल, रस्तोगी प्रकाशन, मेरठ।
19. सक्सेना, अग्रवाल एवं सक्सेना : आर्थिक भूगोल, राजस्थान हिन्दी ग्रंथ अकादमी, जयपुर–2010 ।

Paper – IV(a) Geography of Environment

Duration : 3 hours Max. Marks – 100

Note : The question paper will contain three sections as under –

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. Total marks : 10

Section-B : 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. Total marks : 50

Section-C : 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted. Total marks : 40

UNIT – I

Concept of environment and ecology, Nature and scope of the Geography of environment. Concept of ecology and eco-system-definition and elements, energy flow in eco-system.

UNIT – II

Productivity in eco-system. Eco-cycles. Types of eco-system. Man-environment relationships, perception of environment and its quality. Degradation of Environment, Development vis-a-vis ecological crisis. Global Environmental Issues- Ozonedepletion, Green House Effect and Global Warming Desertification, Biodiversity.

UNIT – III

Environmental Pollution – Water, Air, Noise, Soil and Radio-activity, causes, impact and measures of control with Indian examples. Population. Resources and Ecological crisis.

UNIT – IV

Environment and quality of life. Environmental Management – Approaches Management of forest, soil, wildlife, energy and mineral resources, Natural Hazards & their management. Environmental Impact Assessment. Conservation of natural resources.

UNIT – V

Sustainable development. Environmental policies and programmes (international and national). Environmental problems, planning and legislation in India.

Books Recommended :

1. Batel, B. (Ed.) – Management of Environment, Wiby Eastern Ltd., New Delhi, 1980.
2. Desh Bandhu (Ed.) – Environmental Management, Indian Environment Society, New Delhi.
3. Singh & Singh (Ed.) – Geography of Environment Concept, New Delhi.
4. Saxena, H.M. – Environmental Geography, Rawat Pub., Jaipur, 2005.
5. Savinder Singh – Geography of Environment, Allahabad.

6 Murdock, W. (Ed.)- Environment Resources, Pollution and Society, Sin over Association Inc.
7. Gupta & Gurjar - Sustainable Development, Rawat Pub., Jaipur.
8. Khan, M.Z.A.& Gangwale Sonal : Global Climate change, Rawat Publications, Jaipur, 2011
9. Strahler, A.N. – Geography and Man's Environment, John, Willey.
10. Khan, M.Z.A. & S.K. Agarwal – Environmental Geography, APH Publishing House, New Delhi, 2004.
11. Centre for Science – The State of Indian Environment : A Citizen's Report 1982, Environment 1985, New Delhi.
12. Sharma B.L. & Puja Puar : Global Environmental Challenges, Rohini Books, Jaipur.
13. सविन्द्र सिंह - पर्यावरण भूगोल, इलाहाबाद।
14. वी.के. श्रीवास्तव : पर्यावरणीय, भूगोल एवं पारिस्थितिकी विकास, वसुन्धरा, गोरखपुर।
15. एच.एम. सक्सैना - पर्यावरण एवं परिस्थितिकी भूगोल, राज. हिन्दी ग्रन्थ अकादमी, जयपुर।

Paper – IV(b) Quantitative Techniques in Geography

Duration : 3 hours Max. Marks – 100

Note : The question paper will contain three sections as under –

Section-A : One compulsory question with 10 parts, having 2 parts from each unit, short answer in 20 words for each part. Total marks : 10

Section-B : 10 questions, 2 questions from each unit, 5 questions to be attempted, taking one from each unit, answer approximately in 250 words. Total marks : 50

Section-C : 04 questions (question may have sub division) covering all units but not more than one question from each unit, descriptive type, answer in about 500 words, 2 questions to be attempted. Total marks : 40

UNIT – I

Statistical data, various types of average, measures of dispersion and their calculation. Normal Frequency distribution curve and its uses. Binomial and Poison Distribution, Frequency Distributions.

UNIT – II

Measures of spatial distribution point and line distribution. Nearest Neighbour Index and spatial randomness. Characteristics of samples. Methods of Sampling.

UNIT – III

Statistical significance, Diagrams, Standard error of difference, Students test and Senedor's variance Ratio Test. Models as Quantitative techniques - Simulation Model, The Gravity Model.

UNIT – IV

Measurement of Connectivity and accessibility. Product moment correlation coefficient. Spearman's rank correlation coefficient. Kendal's correlation Coefficient.

UNIT – V

The correlation matrix. Regression line and confidence limits. The Chi-square Test and its uses. Fluctuations and trends. Logarithmic graph.

Books Recommended :

1. Bunge, W. – Theoretical Geography and Studies in Geography, Ser. C. General and Mathematical Geography No.1 Department of Geography, University of Lund, C.W.K. Gleerup ; Lund, 1973
2. Cole, J.P. & King, C.A.M. – Quantitative Geography, Willey, 1968.
3. Dalton, R. & Other - Correlation Techniques in Geography, George Philip & Sons Ltd., London, 1972.
4. Dalton, R. & Others - Sampling Techniques in Geography, George Philip & Sons Ltd. London, 1975.
5. Duncan, O.D. – Statistical Geography – Problems in Analysing Areal Data, 1961.
6 Elhance, D.N. – Fundamentals of Statistics, Kitab Mahal, Allahabad, 1962.

7. Fesguon, R. – Linear Regression in Geography, CATMOG 15, Geo Abstracts, University of East Angila, Norwhich, U.K., 1978.
8. Kellerman, A. – Centrographic Measures in Geography, CATMOG, 32, Ge Abstracts, University of East Angile, 1981.
9. Gregory, S. – Statistical Methods and the Geographer, Longman, London, 1978.
10. King, L.J. – Statistical Analysis in Geography, Prentice Hall, 1960.
11. Monkhouse, F.J. & Wiklinson, H.R. – Maps and Diagrams, B.I. Publication, Bombay.
12. Toyne, P. & Peter – Techniques in Human Geography, Mc-Millan, London, 1976.
13. Yeates, M. – An Instruction to Quantitative Analysis in Human Geography, McGraw-Hill Book, Company, New York, 1974.
14. Mohammed, A. – Statistical Methods in Geography, Rajesh Publication, New Delhi, 1977.
15. David Ebon – Statistics in Geography – A Practical Approach.
16. शर्मा, पी.एम. - सांख्यकी भूगोल, राजस्थान हिंदी ग्रंथ अकादमी, जयपुर

PRACTICAL

Distribution of marks will be as follows –

1.	Laboratory and Map work test (4 hrs. duration)	40 marks
2.	Record Work	25 marks
3.	Viva – voce	10 marks
4.	Project Report and viva – voce (20+5)	25 marks

Note : 12 hrs. of teaching practical be provided per batch of 10 students per week.

Laboratory and Map work –

1. The Art and Science of Cartography, History of Maps, Materials, techniques and Preparation of Maps.
2. Enlargement, Reduction and finding Area of Maps. Use of Planimeter.
3. Interpretation of Weather Maps and Weather Forecast.
4. Map Projection.

Projection and their classification –

Construction and characteristics of projections (Mathematical constructions)

1. Conical Projections :
   - (a) Equal Area with one Standard Parallel (Lambert's Projection)
   - (b) Equal Area with two Standard Parallel (Albert's Projection)
   - (c) Bonne's
   - (d) Polyconic
   - (e) International
2. Cylindrical Projections :
   - (a) Cylindrical Equal Area
   - (b) Mercator's
   - (c) Gall's stereographic
3. Zenithal Projection's

(a)	Gnomonic	1. Polar Case	2. Eq-case
(b)	Stereographic	1. Polar Case	2. Eq-case
(c)	Orthographic	1. Polar Case	2. Eq-case
(d)	Equal Area	1. Polar Case	2. Eq-case
(e)	Equidistant	1. Polar Case	2. Eq-case

4. Conventional Projections :
   - (a) Sinusoidal
   - (b) Mollweide
   - (c) Interrupted Molleweide and Godde's
   - (d) Interrupt Sanson Flamsteed (Homelosine)

Choice of Projections : Projections used for maps produced in India.

Geographical Maps/Diagrams :

Computation of data, preparation of frequency tables, representation of histograms and Ogives. Finding Skewness, computation of Mean. Median and Mode. Deviations : Standard Deviation and Mean Deviation. Correlation. Theoretical Basis of Nearest Neighbour Analysis-Practical exercise on nearest Neighbour Analysis. Network Analysis. Locational Analysis of urban centers. Coefficient of Variation. All these be computed from the Statistical Data, preferably based on District or Tehsil unit areas and the following types of maps and diagrams be prepared.

One exercise on each of the following and their interpretations-Isopleths, choropleth, chorochromatic, Isochrones and Population Potential Surface maps. Population Pyramid, Sten-de-Geers and Stilgen-Baurs-Method.

Three dimensional diagrams of economic and social data, Block Pile, Sphere, Pyramid, Graphs, Polygraph, Semilog and log-graphs, Trilinear chart, Circular graph, Climatograph, Hythergraph, Taylor's/Foster's Climograph, annual water deficiency and water surplus graph.

Project Report : Attendance in camps compulsory. Report should be prepared for a topic related to any regional problem. A group of eight students be constituted for each problem and a report should be prepared in typed form within 20 to 25 pages with the help of maps and diagrams.

Books Recommended :

1. Robinson, A.H. etal – Elements of Geography, John Willey and Sons, U.S.A. 1995.
2. Sarkar, A.K. – Practical Geography – A Systematic Approach, Oriental Longman, Calcutta, 1997.
3. Khan, Z.A. – Text Book of Practical Geography, Concept, New Delhi, 1998.
4. Monkhouse, E.J. & Wilkinson, H.R. – Maps and Diagrams, Methuen, London, 1994.
5. Singh, R.L. – Elements of Practical Geography, Kalyani Pub., New Delhi.
6. Steer, J.A. – Map Projections; University of London Press, London.
7. Lawrence, G.R.P. - Cartographic Methods, London, 1971.
8. Dickinson, G.C. – Statistical Mapping of Statistics, London.
9. जे.पी. शर्मा - प्रयोगात्मक भूगोल, रस्तोगी, मेरठ।
10. इन्द्रपाल एवं माथुर - मानचित्र प्रक्षेप, राज. हिन्दी ग्रन्थ अकादमी, जयपुर।