UNIVERSITY OF KOTA

SCHEME OF EXAMINATION

AND

COURSES OF STUDY

Department of Social Sciences

Faculty of Social Science

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

Third Semester Examination, December

Fourth Semester Examination, May

UNIVERSITY OF KOTA

MBS Marg, Near Kabir Circle, KOTA (Rajasthan)-324 005

INDIA

Edition: 2017-18

Paper Scheme:

Year / Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam.	Teaching Hrs/Week & Credit			Distribution of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Conti. Assess.	Sem. Assess.	Total Marks	Conti. Assess.	Sem. Assess.
I Year Semester I	1.1	GEO 101	Evolution of Geographical Thought-Ancient	3 Hrs	4		4	30	70	100	12	28
	1.2	GEO 102	Advanced Economic Geography	3 Hrs	4		4	30	70	100	12	28
	1.3	GEO 103	Advanced Geomorphology	3 Hrs	4		4	30	70	100	12	28
	1.4	GEO 104	Advanced Geography of Environment	3 Hrs	4		4	30	70	100	12	28
	1.5	GEO 105	Geography Practical	6 Hrs		16	8	--	--	100	--	50
	Total				**16**	**16**	**24**	**120**	**280**	**500**		
I Year Semester II	2.1	GEO 201	Evolution of Geographical Thought-Classical & Modern	3 Hrs	4		4	30	70	100	12	28
	2.2	GEO 202	Resource Geography	3 Hrs	4		4	30	70	100	12	28
	2.3	GEO 203	Advanced Climatology & Oceanography	3 Hrs	4		4	30	70	100	12	28
	2.4	GEO 204	Man & Environment	3 Hrs	4		4	30	70	100	12	28
	2.5	GEO 205	Geography Practical	6 Hrs		16	8	--	--	100	--	50
					16	**16**	**24**	**120**	**280**	**500**		

Year / Semester	Serial Number, Code & Nomenclature of Paper			Duration of Exam.	Teaching Hrs/Week & Credit			Distribution of Marks			Min. Pass Marks	
	Number	Code	Nomenclature		L	P	C	Conti. Assess.	Sem. Asses s.	Total Marks	Conti. Asse ss.	Se m. Ass ess.
II Year Semester III	3.1	GEO 301	Advanced Geography of India	3 Hrs	4		4	30	70	100	12	28
	3.2	GEO 302	Urban Geography	3 Hrs	4		4	30	70	100	12	28
	3.3	GEO 303	(A) Agricultural Geography (B) Advanced Industrial Geography	3 Hrs	4		4	30	70	100	12	28
	3.4	GEO 304	(A) Bio Geography (B) Geography Of Tourism	3 Hrs	4		4	30	70	100	12	28
	3.5	GEO 305	Practical	6 Hrs		16	8	--	--	100	--	50
	Total				**16**	**16**	**24**	**120**	**280**	**500**		
II Year Semester IV	4.1	GEO 401	Geography of Rajasthan	3 Hrs	4		4	30	70	100	12	28
	4.2	GEO 402	Research Methodology	3 Hrs	4		4	30	70	100	12	28
	4.3	GEO 403	(A)Geography of Transport and Marketing (B) Regional Planning (C) Remote Sensing and GIS	3 Hrs	4		4	30	70	100	12	28
	4.4	GEO 404	(A) Political Geography (B) Population Geography	3 Hrs	4		4	30	70	100	12	28
	4.5	GEO 405	Practical	6 Hrs		16	8	--	--	100	--	50
					16	**16**	**24**	**120**	**280**	**500**		

GEO-301	Advanced Geography of India

UNIT – I

Physiographic and drainage systems, Soils& Vegetation, Origin and Mechanism of Indian Monsoon, Schemes of Natural Physiographic and climate classifications .

UNIT – II

Population growth, distribution& density, Sex Ratio and literacy, Population problems and policies.

UNIT – III

Resources conservation and utilization of land, mineral, water, biotic and marine resources. Minerals and Power resources: Use; distribution and Production in India; Iron, Copper , Cole and Petroleum .

UNIT – IV

Types of Agriculture, Geographical condition, distribution and production of following crops - Wheat, Rice, Sugarcane, Cotton, Tea, Coffee.

UNIT – V

Major Industry - Iron and steel, Cement, Cotton Textiles and Sugar industries. Trade and Transport.

Books Recommended :

1. Govt. of India : Five Year Plans of India.
2. Sharma & Coutinho : Economic and Commercial Geography of India, Vikas, Delhi.
4. Singh, R.L. : India : A Regional Geography, N.G.S.I., Varanasi, 1971
5. Galyna & Sen Gupta : Economic Regions and Regionalisation in India, 1968
6. Choudhary, M.R. : Indian Industries Development and Location.
7. Spate, O.H.K. : India and Pakistan, Methuen & Co.,London
80. Krishna, M.S. : Geology of India and Burma,Law Journal Office, Madras.
9. Kumar, L.S.S. & : Agriculture in India, Vol. 1 & II, Asia Publishing Others House,Bombay
10. Indian Year Book, Latest Edition: Publication Division, Delhi. Irrigation Atlas of India.Irrigation Atlas of India.
11. Chatterji, S.B . : Climatology of India, Calcutta University, Calcutta
12. Sharma, T.R. : Location of Industries of India, Hindi Kitab, Bombay
13. Gazetteers of India : Publication Division, New Delhi

GEO-302	Urban Geography

Unit-I
Aims and scope of Urban Geography. Factors affecting the growth of towns during Neolithic period, Greek and Roman period, Dark Ages, Medieval period, Renaissance period, Industrial Revolution and Modern times. Chief characteristics of the towns of each period.

Unit-II
Trends of urbanization in the world, Urbanization in India since 1901, major characteristics, problems and Solutions.

Unit-III
Definitions of Urban centres, Chief characteristics of modern town, Functional structure of towns- C.B.D., Residential areas, manufacturing areas and other functional areas City Conurbation, Metropolis and Megalopolis, Morphology of Indian cities.

Unit-IV
Spatial pattern and distribution of urban centres. Classification of cities. Urban Rank - Size relationship .The Basic and Non-Basic concept of urban economic functions and its application.

Unit-V
Unplanned and planned growth of town : Planning of City, Concept of Master-Plan with spatial study of Master Plan of Kota City.

Books Recommended:

1. Taylor, G : Urban Geography, Methuen & Co., London
2. Geddes : Study in City - Development
3. Singh, R.L. : Banaras : A Study in Urban Geography, Students Friends,Allahabad
4. A.E. Smailes : The Geography of Towns, Huchinson University Library, London
5. Dickinson, R.E. : City Region and Regionalism, Routeledge and Kegon Paul, London
6. Harold M. Mayer : Readings in Urban Geography, Central Book Depot., Allahabad
7. V.L.S. Prakash Rao : Towns of Mysore State, Statistical Publishing House, Calcutta
8. Shah Manzoor Alam : Hyderabad and Secundrabad Twin City : Studies in urban Geography, Allied publishers , Delhi
9. R.L. Singh : Bangalore : An Urban Survey,National Geographical Society of India,B.H.U., Varanasi
10. N.V. Sovani : Urbanization and Urban India, Asia Publishing House, Bombay
11. Hudson, F.S. : Geography of Settlement
12. Johnson, R.H. : Urban Geography
13. Ambedkar : Town and Country Planning
14. Turner, R. : India's of Urban Future, Oxford University Press, Bombay, 1962
15. Carter : The Study of Urban Geography, Edward Arnold, London, 1972
16. Northan, R.C. : Urban Geography, John Willey & Sons, N.Y., 1976
17. Urban Research Method, Von Nostrand Co. Inc., Toronto, 1961
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GEO-303(A)	Agricultural Geography

Unit -I
1.Concept, origin, dispersal and Development of agriculture through the ages
2.Agricultural Geography- History, Nature & Scope.
3.Factors affecting Agriculture :Physical, Social and Economic

Unit -II
1. Water resources- irrigation ;water quality criteria; and water balance.
2. Types of Agriculture and their characteristics- (i)Shifting cultivation; Plantation agriculture,(ii) Extensive and Intensive agriculture; Dry farming.

Unit -III
1. Concept, history, principles and objectives of Agricultural land use.
2. land use surveys.
3. land classification - American pattern and Indian pattern.

Unit -IV
1. surveys, Types, Mapping and problems of Land Use Data.
2. Von Thunen's Agricultural Location theory.
3. Whittlsey's Agricultural Regions of the World .

Unit -V
1. Meaning and methodology of Crop combination regions- Detailed study of Weaver's, Doe's and Prof. S.M. Rafi Ullah's method.
2. Agricultural efficiency.
3. Crop ranking; Cropping intensity; Crop diversification and Specilization

Books Recommended :

1. I.C.A.R. - Soil and Water Conservation Research (1956-71)
2. I.C.A.R. - Soil Conservation in India.
3. Sachchidananda- Social Dimensions of Agricultural Development, National Publishing House, Delhi
4. Noor Mohammed- New Dimensions in Agriculture, Concept, New Delhi, 1991
5. Stamp, L.D. - Land of Britain - Its use and Misuse.
6. Kostowicki - World Types of Agriculture, Polish Academy, Warsow
7. Shafi,M. - Land Use in Eastern U.P., Aligarh University Press.
8. Misra,V.C., Ayyar, N.P. Kumar -Applied Geography, Ali Memorial Number, University Press, Agra
9. Singh, J. - An Agricultural Atlas of India :A Geographical Analysis, Vishal Publications, Kurukshetra.
10. Singh, J. - An Agricultural Geography of Haryana, Vishal Publications, Kurukshetra
11. Singh, J & Dhillon, S.S.- Agricultural Geography, Tata McGraw Hill, New Delhi
12. Noor Mohammed - Agriculture Land Use in India, Inter-India Public, Delhi
13. Ali Mohammed - Situation of Agriculture, Food and Nutrition in Rural India, Concept Publishing, Delhi
14. Ali Mohammed- Dynamics of Agriculture Development in India,Concept Publication Delhi
15. Symon, Leslie- Agricultural Geography, G.Bell & Sons Ltd., London, 1967
16. Singh, R.L. (ed.)- Applied Geography, B.H.U. Press, Varanasi
17. Kostrowickie- Agricultural Typology ; Polish Academy, Warsow.
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GEO-303(B)	Advanced Industrial Geography

Unit - I
Nature and Scope , Location factors in manufacturing & concept of optimum location, The Least Cost School and the Transport Cost School, The Market Areas School, The Marginal Location School.

Unit - II
Major Industries of India; Iron and Steel Industry, Copper Industry, Aluminium industry, Pulp and paper industry. The Cement Industry.

Unit - III
Important Industrial regions of the World ,India , The Changing character of geographical concentration and impact of technological change, Formation of Industrial Regions and its changing character .

Unit - IV
Study of the following regions.
1. The Hooghlyside Industrial Regions 2. The Damodar Valley Industrial Region
3. The Ruhr Basin Industrial Region 4. The Great Lakes Industrial Region

Unit-V
The Textile Industry , Multi-locational Industries-Iron and Steel, Aluminium, Oil Refining, Market Oriented Industries-Furniture, Textile Machinery. Footloose Industries-Automobile, Raw Material oriented Industries.

Books Recommended :

1. Llyod and Dicken : Location in Space : A Theoretical Approach to Economic Geography.
2. M.C. Cart & Limberg Hodder & Lec : Economic Geography
3. Smith, D.E. Cox & K.P. Man : Industrial Location, A Economic Geographic Analysis, Location and Behaviour - An Introduction to Human Geography.
4. Riley, R.C. - Industrial Geography, Chalto & Windus, London, 1973
5. Alexander, J.W.- Economic Geography, Prentice Hall, New Delhi.
6. Boesh - A Geography of World Economy.
7. Estall, R.C. & Buchanan, R.O. - Industrial Activity & Economic Geography, Hutchinson Co.,
London.
8. Hoover, E.M. - The Location of Economic Activity, McGraw Hill Books Co., New -York
9. Chodhary, M.R. -Industrial Geography of India
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GEO-304 (A)	Bio- Geography

Unit- I

Meaning and scope of Bio- Geography, History of Zoo- Geography and Plant Geography, Ecology, Eco-system , Plant response to environment.

Unit- II

Barriers to distribution and means of dispersal of plants. Factors controlling forest distribution. Characteristics and distribution of Equatorial and temperate forests and grasslands.

Unit- III

Climate change and their effect on the plant cover, condition of existence for animals. Barriers to distribution and means of dispersal of animals. Distribution of animals.

Unit- IV

Zoo Geographical regions. Aquatic environment and life, marine and fresh water Fauna. Vegetation and floral regions of India, economic importance.

Unit- V

Conservation of wild life and forests, Pollution and its effect on wild life and vegetation. National Parks and Sanctuaries of India. Biodiversity and its conservation.

Books Recommended :

1. Newbegin : Plant and Animal Geography
2. Cline : Foundation of Plant Geography
3. G. Ponald : The Geography of Flowering Plants.
4. Darlington : Zoo- Geography
5. Schimper : Plant Geography
6. S. L. Hora : Fundamental Conception of Zoo- Geography, N.G.S.I. Banaras
7 S. L. Hora : Terrestrial Fishes and the Significance of their Distribution in Geographical Studies, N.G.S.I. Banaras
8. H.S. Mathur : Bio- Geography
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GEO-304 (B)	Geography of Tourism

Unit- I

Nature and scope of tourism geography. Study approaches, Elements of tourism; tourism as an industry, Factors influence tourism- natural/geographical, historical, socio- economic and cultural .

Unit- II

Historical perspective of movement: curiosity and exploration. The development of modern tourism . Types of tourism: cultural, ecological, ethno, coastal and adventure tourism; national and international tourism. Classification of travellers/ tourists: bases and characteristics.

Unit- III

The structure and problems of tourism industry: accommodation, food, travels organisations . The Socio-Economic significance of tourism. Demand for tourism, Local and global impacts of tourism.

Unit- IV

Tourist industry in India: History of travel in India, Physical attributes and cultural heritage of India as tourist destination, Types of tourists; origin and destination of tourists, Problems associated with accommodation, transportation and food; impacts of tourism in development. Role of ITDC and other agencies in promotion of tourism; recent trends.

Unit- V

Tourism industry in Rajasthan: Salient features of tourism in Rajasthan, Physical attributes and cultural heritage of Rajasthan as tourist destination, Types of tourist; origin and destination of tourists. Problems associated with accommodation, transportation and food; impacts of tourism in development. Role of RTDC and other agencies in promotion of tourism; recent trends.

Books Recommended:

1. Anand, M.M., Tourism and Hotel Industry in India, Prentice Hall of India, New Delhi.
2. Archer, B.H., Demand Forecasting in Tourism, Cardiff University of Wales of Press.
3. Archer, B.H., The Impact of Domestic Tourism, Cardiff University of Wales Press.
4. Bhatia, A.K., Tourism Development: Principles and Practices, Sterling Publishers, New Delhi, 1996.
5. Bhatia, A.K., International Tourism: Fundamentals and Practices, Sterling Publishers, New Delhi, 1991.
6. Bhatia, A.K., Tourism Development: Principles and Practices, Sterling Publishers, New Delhi, 1996.
7. Bhatia, A.K., Tourism in India: History and Development, Sterling Publishers, New Delhi.
8. Boniface, G.B. and C.P. Cooper, The Geography of Travel and Tourism, Heinemann.
9. Brunel, Francis, Rajasthan, UBS Publishers.
10. Bryden, John M., Tourism and Development, Cambridge University Press, London.
11. Burkert, A.J. and S. Medlik, Tourism: Past, Present and Future, Heinemann.
12. Chandra, R.H., Hill Tourism: Planning and Development, Kanishka Publishers, New Delhi, 1998.
13. Cooper, C.P. et al., Progress in Tourism, Recreation and Hospitality Management, Vol. II and III, CBS Publishers.
14. Deaton, A. and J. Muelbauer, Economics and Consumer Behaviour, Cambridge University Press, London.
15. Gandhi, Indira and Jean-Loveis Nov, Eternal India, B.L. Publications.

GEO-305	Practical

Practicals
Surveying and laboratory Work:
1. Laboratory work test (3 hrs duration) 40 Marks
2. Record work & viva-voce(20+10) 2 hrs 30 Marks
3. Field surveying & viva voce (20+10) 3 hrs 30 Marks

Total 100 Marks
Note: 16 hrs of teaching- practical be provided to students per week .

Unit-I
The Art of surveying, History of surveying, scope, utility and problems, Classification of Surveying.

Unit-II
Contours: Basis of contour making , topographic representations by contours, Hill, Plateau, Concave ,Convex slope, Water Fall, valley etc.

Unit-III
Methods and techniques of representation-depicting of relief , Profile: Types(serial profile, Composite, Super Imposed and Projected) , Making, Scale and Interpretation.

Unit-IV
hypsographic curves, altimetric frequency graphs, Interpretation of Topographical Maps : A brief history of topographical Maps with special reference to India and the interpretation, Detailed study of Indian topo-sheets.

Unit-V
Plane table Survey: Fundamentals, Use and application, Radiation Method(8 Sheets), Levelling : Terms, types and principles of levelling, Clinometer.

Note: Record work will comprise of a minimum of 15 exercises drawn on one fourth of a full drawing sheet with analysis/ Explanations.

Books Recommended :
1. Kanetkar, T.P. & Kukarni, S.V. - Surveying and levelling, Vol., A.V. Gria Prakash, Puna
2. Deshpande, T.S. - A Text Book of Surveying and Levelling, United Book Corporation, Puna
3. James Glending - Principle and Use of Surveying, Blackie and Sons Ltd., Glasgo
4. B.C. Punamia - Surveying and Field Work, Vol.1, Standard Books Depot, Delhi
5. Breed, C.B. & Honmer, G.L. - The Principal of Surveying, Vol I and II,New York
6. Davis, R.E. & Foot, F.S. - Surveying, Theory and Practice, John Willey & Sons Inc.
7. T.R. Tracy - Surveying, Theory and Practice, McGraw Hill Book Co., New York
8. Thrifall, H.S.A. - Text Book of Surveying and Levelling, Chart Grafin, London
9. Williamson - Surveying and Field Work, Constable
10. Roorkee - Engineering College - Manual of Surveying
11. N.C. Gautam - Urban Land use Studies Through Airphoto Interpretation Techniques, Pink Publishing House, Mathura

GEO-401	Geography of Rajasthan

Unit - I
Introduction: Formation and administrative setting of the State, Geological structure, Relief, Physiographic regions, Drainage, Climate, Soils &Natural vegetation.

Unit - II
Agricultural aspects of the State, major commercial crops, Major irrigation sources, Desertification and Desert development programme, Live stock and dairy development.

Unit - III
Power and energy resources, Hydal , Thermal, Atomic, Solar, Wind, Biogas, Mineral resources. Transportation and Trade.

Unit - IV
Demographic structure, growth, distribution, density, literacy, Cultural heritage : Tourism, Fairs and Festivals, Tribes of Rajasthan - Bhils, Saharia and Grarasia.

Unit - V
Geographical regions of Rajasthan, Environmental problems-Water, Soil, Air pollution. Conservation and management of forest, water and soil resources, National Parks and Wildlife Sanctuaries.

Books Recommended :

1. Mishra V.C.: Geography of Rajasthan, N.B.T., Delhi
2. Sharma H.S. and Sharma M. L.: Geographical facts of Rajasthan.
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GEO-402	Research Methodology

Unit-I
Research: Geographical Research ,Problems of Geographical Research, Data; Types, Nature and source of data, Importance of Objectives, Hypothesis, Review of literature , Methodology.

Unit- II
Preparation of Research project and report writing, Cartographic representation of data, Graphs and Diagrams, Techniques of co-relation analysis.

Unit - III
Nearest neighbour analysis with examples, Sampling, Methods of delimiting regions - Resource Regions, Economic, Industrial, Agricultural and Planning regions.

Unit- IV
Regional population analysis - Population projection, Migration Analysis, Delimiting urban and market spheres of influence.

Unit-V
Cartographic Techniques and Map analysis. Basics of Remote Sensing , Aerial photography and and G.I.S. , Integrated area development planning.

Books Recomemnded :

1. David Unwin, : Introductory Spatial Analysis, Methuen, London, 1981
2. Gregory,S. : Statistical Methods and the Geographer, Longman,London, 1978
3. Mahmood.A. : Statistical Methods in Geographical Studies, Delhi, 1978
4. Maruice Yeats : An Introduction to Quantitative Analysis in Human Geogra phy, McGraw Hill, New York
5. Peter Haggett, Andrew : Location Methods Vol.I and II Edward Arnold, London, D. Cliff & Allan Frey 1977
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GEO-403(A)	Geography Of Transport & Marketing

Unit - I
Nature and Scope of Transport Geography, Transport as controller of economic activity, Models of transport development.

Unit -II
Nature and Scope of Marketing Geography, Growth of Market centres in various parts of the world including India.

Unit - III
Types of markets, Regulated markets, Periodic Markets - Nature, Distribution, Commodity structure and social importance.

Unit - IV
Market Morphology, Market Sphere of influence, Agricultural Marketing,

Unit - V
Behavioural Pattern of market place participants, Cartographic representation of Transport and marketing data.

Books Recommended :

1. Berry, B.J.L. : Geography of Market Centres & Retail Distribution, Prentice Hall, 1967.
2. Chorley, R.J. & Haggett, P.(ed.): Network Analysis in Geography, Arnold, 1969
3. Garnier, B.J. & Delobez, A. : Geography of Marketing, Longman, London, 1995.
4. Hurst, E. : Transport Geography - Comments & Reading, McGraw Hill, 1974
5. Scott, P.: Geography and Retailing, Hutchinson, London
6. Saxena, H.M. : Marketing Geography, Rawat Pub., Jaipur, 2005
7. Robinson, H. & Burnford, C.G. : Geography of Transport, London, 1978
8. White, H.P. & Senior, M.L. : Transport Geography, Longman, London, 1983
9. *txnh'k flg $ ifj3gu Hkxky] ><.jin'k fgUnh xUFk vdkneh(*
10. Saxena, H.M. – Transport Geography, Rawat Publications, Jaipur- 2008

GEO-403(B)	Regional Planning

Unit - I

Conceptual and theoretical framework, merits and limitations for application to regional planning and development; changing concept of the region from an interdisciplinary view-point.

Unit- II

Concept of space, area and locational attributes. Approaches to delineation of different types of regions and their utility in planning. Planning process - sectoral, temporal and spatial dimensions.

Unit-III

Indicators of development and disparities. Regional development strategies - concentration v/s dispersal.

Unit- IV

Short- term and long term planning in a national context. Regional plans of India Regional development in India - problems and prospects..

Unit- V

Concept of Multi-level planning : Decentralised planning; Peoples participation in the planning process; Panchayati Raj system with special reference to Rajasthan.

Books Recommended :

1. Abler, R. et.al : Spatial Organisation : The Geograper's View of the World, Prentice Hall, Englewood Cliffs, N.J., 1971
2. Bhat, L.S. : Regional Planning in India, Statistical Publishing Society,Calcutta, 1973
3. Bhat, L.S. : Micro-Level Planning : A Case Study of Karnal Area, Haryana, K.B. Publications, New Delhi, 1976
4. Chorley, R.J. & Hagget, P.: Models in Geography, Methuen, London, 1967
5. Christaller, W. : Central Places in Southern Germany, Translated by C.W. Baskin, Prentice Hall, Englewood Cliffs, New jersey, 1966
6. Friedmann, J. & Alonso, W.: Regional Development Policy - A Case Study of Venezuela,M.I.T. Press Cambridge, Mass, 1966

GEO-403 (C)	Remote Sensing and GIS

Unit- I

Historical development of Remote sensing as a technology - Relevance of remote sensing in Geography, Concepts and basics. Energy source, energy and radiation, energy interactions in the atmosphere and earth surface features. Remote sensing systems : platforms and sensors.

Unit- II

Air Photos and Photogrammetry : Elements of Photographic system : Major type, scales and ground coverage, resolution, radiometric characteristics, films, filters, aerial cameras, fundamentals of photogrammetry, elements of vertical photographs, strereoscope.

Unit- III

Airphoto interpretation : shape, size, pattern, tone, texture, shadows, site, advantage and limitation of remote sensing, comparison of map, aerial photographs and satellite imagery.

Unit- IV

Satellite Remote Sensing : History and development of various types of satellite and space programme with special reference to Indian Space Research programme. Types of imagery, techniques of visual interpretation, ground verification.

Unit- V

Computers in Geography, Digital image processing , supervised and unsupervised classification. GIS - Introduction, definition and scope, its application in various fields and planning, GPS.

Books Recommended:

1. American Society of Photogrammetry: Manual of Remote Sensing ASP, Falls Church, VS A.1983, Vol. I, II
2. Barrett, E.C. & L.F. Curtis : Fundamentals of Remote Sensing and Air photo Interpretation, McMillan, New York, 1992
3. Compbell,J. : Introduction of Remote Sensing, Guilford, New York, 1989
4. Curran, paul J. : Principles of Remote Sensing, Longman, London,1985
5. Hord, R.M. : Digital Image processing of Remotely Sensed Data, Aacdemic, New York, 1989
6. Luder, D : Aerial Photography Interpretation : Principles and
7. Pratt, W.K. : Digital Image Progessing, Willey, New York, 1978
8. Rao, D.P. (eds.) : Remote Sensing for Earth Resources, Association of Exploration, Geophysicist, Hyderabad, 1998
9. Thomas, M. Lillesand & Ralph W. Kefer : Remote Sensing and Image Interpretation, John Willey & Sons, New York, 1994
10. Wolf Paul, K. : Element of Photogrammetry, McGraw Hill Book. Co.
11. Chouhan, T.S. & K.N. Joshi : Applied R.S. and Photo Interpretation,Vigyan Prakashan, Jodhpur.
12. Gautam, N.C. : SPGU - Technology of Geography, N.R.S.A. Hyderabad
13. Singh, S. : Remote Sensing Technology, Scientific Publication, Jodhpur
14. Rao, D.P. (eds.) : Remote Sensing for Earth Resources, Association of Exploration Geophysists, Hyderabad. 1998

GEO-404 (A)	Political Geography

Unit- I

1.Political geography- Definition and scope.

2.Concept of Mackinder, spykman, Meining, Hoosan,De Seversky.

3.Geo-Politics and conflict zones of the world.

Unit- II

1.Political geography-Functional approach and Unified field theory.

2. Sate- Territory, population, organisation and Power.

3. Core areas and capitals,

Unit- III

1.Frontiers and Buffer zones

2.Boundaries-(i)Classification of boundaries,

(ii) The concept of territorial sea and maritime boundaries

Unit- IV

1. States- Unitary and Federal.

2.The Dying colonialism and Resurgent Nationalism. Emergence of Third world Block.

3. Super nationalism. Politico-geographical study of India.

Unit- V

1. The Politics and transportation.

2.The geography of foreign aid and economic development.

3.Electoral geography.

Books Recommended:

1. Alexander, L.M. : World Political Patterns. John Murray and Co., London.
2. Boggs, S.W. : International Boundaries, Columbia.
3. Bowman, I. : The New World Problems in Political Geography, World Co. Younkers, On Hudson.
4. East, W.G. & Moodies, A.E.: The Changing World, George G. Harrap & Co., London.
5. East, W.G. & Spate, O.H.K. :The Changing Map of Asia, Methuen & Co., London
6. Frigreiv. J. : Geography & World Power, University of London Press, London
7. Fawcer, C.B. : Frontiers - Study in Political Geography, Oxford University Press, Oxford.
8. Fizgiddeon, R.H. : Global Politics, University of California Press, Parkaley.
9. Horradin, J.F. : An outline of Political Geography, Affred A. Knob, New York
10. ,5-,e- l4luk jktuhf.d Hkxky] j2.kxh if?yd'kUl] ej@
11. Moodie, A.E. : Geography behind Politics, Hutchinson's University Library, London.
12. Pearch, C.E. et al : World Political Geography, Thomas, Y. Crowell Co., New York
13. Valkenburg, S.V. & Suz.C.L.: Elements of Political Geography, Second Edition, Eastern Economy Edition. Prentice Hall and Co. Ltd., New York.
14. Stransz, R.H. : Geopolitics - The Struggle for Space and Power,G.P.Pitman's & Sons,NY
15. Spykman, N.J. : The Geography of Place, Harcour Brace, New York

GEO-404(B)	Population Geography

Unit- I

Population geography : definition , nature and scope ,theories of population growth – Pre Malthusian views , Malthus theory, Marxist theory ,optimum Population theory .

Unit- II

Demographic transition model, world population distribution ,growth trends and determinates, Migration :history , theory, trends and patterns of international and national migration, population dynamics :fertility and morality.

Unit- III

distribution world population, composition and characteristics, world population and urbanization trend pattern and challenges.

Unit- IV

India :population characteristics and relationship with development, population control movement and policies, urbanization and population explosion.

Unit- V

Post independence development – family planning and child health programme, contemporary issues – ageing of population, declining sex ratio.

Books Recommended :

1.Bhende , Asha A and kanitkar ,2002 : Principal of population studies ,14th edition Himalaya publishing House Mumbai.
2.Chandna R.C. 2013,population geography Kalyani publisher Delhi
3.Chandna R.C. 2006, Jansnkhya Bhoogol, Kalyani publisher Delhi
4.Garnier ,J.B. 1978 :Geography of population,Longman U.K.
5.Hassan ,M.L. 2005 population Geography,Rawat publication Jaipur.
6.Kundu ,A Lopamundra,R.S.2012"Migration and Exclusionary Urbanisation of India"Economic and political weekly,XL VII (26/27):219-227.
7.Kundu A 2006 Trends a pattern of urbanization and treir Economic Inplication India Infrastucture Report ,pp . 28-41.
8.Newbold ,K.B. 2010 Population geography: Tools and Issues ,Rowman & Little field publisher ,London.
9.Premi,M.K. 1991 Ijndia Population heading towards to Billion B.R. publishing corporation New Delhi.
10.Rural Urban Dynamics and the millennium development Goals 2013: Golbal monitoring Report.
11. Woods , R. 1997 : Theoretical Population Geography , Longman,U.K.
12. Weeks ,J.R. 1988: population : An Introducation to concept of IssueSpringer wadsworth.

GEO-405	Practical

Practicals

Surveying and laboratory Work :
1. Laboratory work (3 hrs duration) 40 Marks
2. Record work & viva-voce (15+5) 2 hrs 20 Marks
3. Field surveying & viva voce (15+5) 3 hrs 20 Marks
4. Survey camp & viva - voce (15+5) 20 Marks
Total 100 Marks
N.B. 16 hrs of teaching practical be provided to students per week.

Unit- I
Plane table Survey: Radiation, Intersection, Open and Close Traverse methods, Resectioning : Two and Three -point problems.

Unit- II
Dumpy level : its part and their functions, use of Dumpy level ; Theodolite : its part and their functions, use of Theodolite.
Unit- III
Air photo: Overlapping System, Elements of Interpretation and exercise on the determination of height of plan, number of photographs, knowledge of stereoscopic vision, mosaic, types of cameras, stereoscopes, Visual Interpretation and identification of cultural and physical features on photograph.

Unit- IV
Remote sensing , History of indian remote sensing, Images: types interpretation elements , G.I.S: Parts of GIS, Overview ,Softwares, Importance of Remote Sensing and GIS in Geographical Studies.

Unit- V
Field Surveying and Camp Work :Use and application of Plane-table Survey in small area/colony .
Survey Camp - A survey of settlement will be done by organising a camp at-least for a week duration and maps, reports of the camp will be prepared, students will attend the camp in working hours. The report shall be prepared separately and independently and submitted at the time of Examination .

Note: Record work will comprise of a minimum of 15 exercises drawn on one fourth of a full drawing sheet with analysis/ Explanations.

Books Recommended :
1. Kanetkar, T.P. & Kukarni, S.V. - Surveying and levelling, Vol., A.V. Gria Prakash, Puna
2. Deshpande, T.S. - A Text Book of Surveying and Levelling, United Book Corporation, Puna
3. James Glending - Principle and Use of Surveying, Blackie and Sons Ltd., Glasgo
4. B.C. Punamia - Surveying and Field Work, Vol.1, Standard Books Depot, Delhi
5. Breed, C.B. & Honmer, G.L. - The Principal of Surveying, Vol I and II,New York
6. Davis, R.E. & Foot, F.S. - Surveying, Theory and Practice, John Willey & Sons Inc.
7. T.R. Tracy - Surveying, Theory and Practice, McGraw Hill Book Co., New York
8. Thrifall, H.S.A. - Text Book of Surveying and Levelling, Chart Grafin, London
9. Williamson - Surveying and Field Work, Constable
10. Roorkee - Engineering College - Manual of Surveying
11. N.C. Gautam - Urban Land use Studies Through Airphoto Interpretation Techniques, Pink Publishing House, Mathura