


RANI CHANNAMMA UNIVERSITY, BELAGAVI
Vidya Sangam
2015-16

Regulations & Syllabus
for
P.G. DEPARTMENT OF STUDIES IN
GEOGRAPHY

M. Sc III Semester
Choice Based Credit System
CBCS

WITH EFFECT FROM 2015-16 & ONWARDS



RANI CHANNAMMA UNIVERSITY BELAGAVI

Department of Studies in Geography Choice Based Credit System (CBCS)

M. Sc IIIrd Semester Geography

Paper	Subject Title	Theory/ Practical Hour per week	Core & Elective	Credits	Duration of Exam hours	Max. of marks	I.A marks	Total
	Theory paper:							
3.1	Geography of Tourism and Recreation	4	Core	4	3	80	20	100
3.2	Fundamentals of Remote Sensing & GIS	4	Core	4	3	80	20	100
3.3	Optional Papers: <i>Choice any one:</i> a) Population Geography b) Agricultural Geography c) Geography of Settlements	4 4 4	Core Core Core	4 4 4	3 3 3	80 80 80	20 20 20	100 100 100
3.4	Open Elective: <i>For Competitive Examinations (Choice any one)</i> a) Regional Geography of India b) Regional Geography of Karnataka	4 4	Elective Elective	4 4	3 3	80 80	20 20	100 100
	Practical paper:							
3.5	Practical-I <i>Quantitative Techniques in Geography</i>	4	Core	4	4	80	20	100
3.6	Practical- II <i>Study of Aerial Photographs & Satellite Imageries</i>	4	Core	4	4	80	20	100

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PAPER- 3.1 GEOGRAPHY OF TOURISM AND RECREATION

Objectives: The objective of this course is to understand the nature of man- environment relationship and human capability to adopt and modify the environment under its varied conditions and to understand the impact of tourism on physical and human environments. This course further aims to familiarize tourist spots, places, and its interaction, and to orient the students to the logistics of tourism industry and the role of the tourism in the regional development.

Course Structure:

Unit- I	Basics of Tourism: Definition and concept of tourism- Approaches to study of tourism- Tourism system- Factors affecting of tourism.	10 hours
Unit- II	Evolution of tourism: Early beginning and its growth, Influence of Industrialization and Modernization on changing perception of tourism. Robinson's classification of tourism- Forms and types of tourism: Business, Domestic, National, International, Inter and Intra regional and Holiday's tourism.	12 hours
Unit- III	Structural components and characteristics of Tourism - motivation factors- Tourism as Industry- functions of tourism with reference to developed & developing nations.	12 hours
Unit- IV	Impact of tourism: Tourism and environment Influence of tourism on Physical and Socio- Economic conditions- air and water quality, Employment, labour, sectoral linkages and issues of conservation.	12 hours
Unit-V	Tourism Development: Important tourist sites/places in Karnataka and India, Historical perspective of tourism development in Karnataka -Resource potentialities of tourism, Regional policies of tourism and its development, Role of public and private sector in the development of tourism, Impact Tourism on society and environment.	12 hours

REFERENCE:

1	Bhatia.A.K (1991)	Dynamics of Tourism and Recreation, Inter India, New Delhi
2	Bhatia.A.K (1991)	International Tourism, Fundamentals and practices, sterling, New Delhi.
3	Bhatia.A.K (1991)	Tourism Development, Principles and Practices, Sterling, Bangalore.
4	Cosgrove. I & Jackson. R (1972)	The Geography of Recreation and Leasure, Hutchinson, London.
	Garg.N.K.(1996)	Tourism and Economic Development, Avishkar, Jaipur.
5	Hunter. C& Green. H (1995)	Tourism and Environment, A Sustainable Relationship.
	Hudson	Geography of Tourism, Daya publishing House, New Delhi.
6	Kaul.R.K. (1985)	Dynamics of Tourism and Recreation, Inter-India, New Delhi.
7	Tiwari.S.P (1994)	Tourism Dimensions, Atmaram Publisher, New Delhi.
8	Rabinson.H.(1996)	A Geography of Tourism, Macdonald and evans, London.
9	Hagget. P.(1979)	Geography: A Globak Synthesis, Prentice Hall, London.

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PAPER-3.2 FUNDMENTALS OF REMOTE SENSING AND GIS

Objectives: The main objective of the course is to introduce to the students the basic principles of Remote sensing and GIS, to indicate the methods of visual and digital interpretations of satellite imageries. To introduce the students that GIS is a tool of spatial science and art of representing various types of data with aid of GIS technology. The course further aimed at introducing the basic elements of GIS, and remote sensing, methodology and its application in the study of geography.

Course Structure:

Unit- I	Remote Sensing: Definition, nature and scope – types of Remote Sensing, Comparison of Ariel remote sensing and satellite remote sensing – advantages and limitation of satellite remote sensing.	07 hours
Unit- II	EMR and Remote sensing: Energy sources - Electro Magnetic s Radiation – Spectral regions –EMR & its interaction with matter & atmosphere, Sensors and platforms- Landsat, SPOT, IRS & Radarsat, - Thermal & Microwave remote sensing,	10 hours
Unit- III	Aerial photography: Introduction to Aerial photography, types of aerial photographs; Elements of photo image recognition. Stereoscopes & stereo pairs. Photogrammetry: - Mapping of Landuse / Landforms; interpretation of rock types, landuse, cultural features, water resources and vegetation.	10 hours
Unit- IV	Definition, Meaning, Purpose and significance of GIS, Basic concept of Geographical Information System (GIS). Introduction to Geographic Information system. Advantages, Disadvantages,	08 hours
Unit-V	Components of GIS; History of GIS- Objectives of GIS - Spatial data, Attribute data, Integration of Spatial and Attribute data- Data Structure- Raster & Vector Components – Data input, output, Data Management. Application of GIS and data analysis.	10hours

REFERENCE:

1	Borrough P.A (1986),	Principles of Geographic information system for land resources, Clarendon press, Oxford.
2	Bernhardsen, Tor (1999)	Geographic Information Systems: An Introduction,
3	Chrisman N.R. (1997)	Remote sensing and Geographical information systems
4	Clarke, Keith C. (1999)	Getting Started with Geographic Information Systems,
5	Chang, Kang-taung (2002)	Introduction to Geographic Information Systems
5	Demers, Michael N. (2000)	Fundamentals of Geographic Information Systems,
6	Haywood, Ian (2000)	Geographical Information Systems, Longman
7	Sabbins.F.F (1987),	Remote sensing: principles and interpretations”, W. H. Freeman and Co, New York.
8	Kang-Tsung Chang (2008)	Introduction to Geographic Information Systems, Tata McGraw Hill
9	Sabbins.F.F (1987),	Remote sensing: principles and interpretations W. H. Freeman and Co, New York.

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M. Sc IIIrd Semester Geography

**PAPER-3.3 –(a) POPULATION GEOGRAPHY
(Optional)**

Objectives: The objectives of this course are to understand the spatial and structural dimensions of population and emerging issues. The course is further aimed at familiarizing the students with global and regional level problems and also equips them for comprehending the Indian situation.

Course Structure:

Unit- I	Nature & scope of Demography and population Geography. Difference between demography & population. Demographic Characteristics & interrelationships. Demography – Population, Geography as specialized branch. Definition, Scope, Significance and Sources of Population Data.	12 hours
Unit- II	Factors Affecting Population distribution population, Density of population distribution - World and India, Population Composition –Sex Ratio, Age, and Occupation pattern.	08 hours
Unit- III	Fecundity and Fertility-Determinants of Fertility and Mortality and factors affecting them, Population Growth and it's Changes in India. Demographic Transition Theory. Migration –Types of Migration, Causes and Consequences,	10 hours
Unit- IV	Population and resources – Optimum population, Over Population and Under Population, Population resource Regions, Malthusian Theory and Karl Marx's Theory of Population.	10 hours
Unit-V	Population problems and Policies in India. Policies in LDCs and MDCs. Methods population projections.	08 hours

REFERENCE:

1	Barrett H.R.(1992)	Population Geography, Oliver and Boyd Longman House,
2	Bhende Asha & Kanitkar Tara(1975)	Principles of population Studies, Himalaya Publishing House, Bombay
3	Chandna,R.C. & Manjits. Sidhu(1980)	Introduction to Population Geography Kalyani Publishers, New Delhi.
4	Chandana, R.C. (1984)	Geography of Population, Kalyani Publisher, Ludhiana.
5	Garnier, J.B. (1976)	Geography of Population, Longman Group Ltd., London.
5	GeorgeJ.Demlo et.al(1970)	Population Geography: A Reader, McGraw Hill Book Co. New York.
6	Hausier, Philip M & Duncan (Eds.)(1959)	The Study of Population, University, Press, Chicago.
7	Hussein, Majid (1999)	Human Geography (2Ed.), Rawat Publications, Jaipur.
8	John,I.Clarke (1972)	Population Geography Indeed, Pergamum Press, Oxford.
9	Sinha V.C(1979)	Dynamics of India's Population Growth, National Publishing House, New Delhi.
10	Smith,T.L)1960)	Fundamental of Population Studies, Lippincott, London.
11	Trewartha,G.T.(1959)	A Geography of Population; World patterns, John Wiley & Sons Inc. New York.
12	Zelinsky, W (1966)	A Prologue of Population Geography, Prentice Hall Inc, M.J.

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M. Sc IIIrd Semester Geography**PAPER-3.3-(b) AGRICULTURAL GEOGRAPHY****(Optional)**

Objectives: To familiarize the students with concept, origin, and development of agriculture; and to examine the role of agricultural determinants towards changing pattern of crops, specialization, intensity, productivity. The course further aims to familiarize the students with the application of various theories models and classification schemes of cropping pattern and productivity. The objective of the course is to discuss the environmental, technological and socio-economic issues in agricultural sector with special reference to India and world.

Course Structure:

Unit- I	Nature, Scope & Significance of Agricultural Geography, Origin & diffusion of agriculture and approaches to the study of agriculture geography, whillesey's world classification of agriculture region	10 hours
Unit- II	Determinants of agriculture: Physical, Economic, Social, Institutional and Technological. Green Revolution, White Revolution, Blue Revolution and their significance.	08 hours
Unit- III	Models in Agricultural Geography – Nature and significance of Agricultural models, Classification of models, Input, output- Decision making- Diffusion. Von-Tunnen's model and Johansson's model.	10 hours
Unit- IV	Productivity and Efficiency. Methods of Agricultural Regionalization: Weaver's Crop Combination, Crop Concentration by Bhatia. S. S and Agricultural Efficiency regions by Kendall's.	10 hours
Unit-V	Ecological Implications of Green Revolution- Salinitation, Water logging, Soil pollution and Health Hazards.	08hours

REFERENCE:

1	M. Shafi, (2006)	Agricultural Geography” Dorling Kindersley (India) Pvt, Ltd. Licensees of Pearson Education in South Asia. New Delhi.
2	Majid Hssain, (2002)	Systematic Agricultural Geography” Rawat Publication, Jaipur.
3	Noor Mohammed	Perspectives in Agricultural Geography”, Vol. I to II, Concept publishing company, New Delhi.
4	Sing and Dhillin,(2000):	Agricultural Geography”, Tata Mcgrow – Hill publishing company ltd, New Delhi.
5	Jasbir Sing,	Agricultural Geography.
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M. Sc IIIrd Semester Geography**PAPER-3.3-(c) SETTLEMENT GEOGRAPHY****(Optional)**

Objectives: The aim is to acquaint the student with spatial and structural characteristics of Human settlement under varied environmental conditions, to enable them to diagnose spatial issues related to urban and rural settlements. The course also enable students to equip themselves for concerns in various agencies linked with the socio- economic well being of human communities and planning of human settlements

Course Structure:

Unit- I	Nature and scope of settlement of geography. Origin and growth of Rural and urban settlements. Rural as opposed to urban. Definition and characteristics of rural settlements. Human settlements as functional system.	08 hours
Unit- II	Pattern and types of rural Settlements. Concept of Rural-Urban continuum. Rural settlements as a service and market centre. Chaining socio-economic structure of rural settlements, rural de-population. Rural planning and integrated development in India.	10 hours
Unit- III	Evolution of Towns with regard to site and situation - Urbanization, Trend of urbanization, Urban influence, Urban Fringe, Urban Sprawl and urban renewal. Size and spacing of urban settlements, Urban hierarchy, and rank size rule relationships.	08 hours
Unit- IV	The economic base of urban centers & classification on the basis of size & function. Central Business District (CBD) its Characteristics. Central Place theory by W. Christaller- Urban functions- Functional classification of towns- Webb's, Nelson. H. J. Harris. C. D.	12 hours
Unit-V	Urban land use theories- i) Concentric Zone Model by E.W. Burgess, ii) Sector Model by Homer Hoyt.iii) Multiple Nuclei Model by Harris and Ullman. Urban poverty, Slums, urban renewal, and its planning. Master plans of towns, New towns.	10 hours

REFERENCE:

1	Alexander J.W.(1991)	Economic Geography. Prentice Hall of India. New Delhi.
2	Carter H.(1975)	The study of urban geography. Edward Arnold, London.
3	David Peter & Hopkinson M.(1983)	The geography of settlements, Oliver & Boyot, Edinburgh
4	Haggett Peter (1991)	Geography a modern synthesis, Harper & Row, New York.
5	Johnston J.H.(1974)	Urban Geography, Pergoman Press, Oxford.
5	Johnston R.,J.(1984)	City & Society. Unwin hyman, London.
6	King L.J.& Golledge R.G.(1978)	Cities, space & Behavior, Prentice Hall, engle wood cliff, New Jersey.
7	Mandal R.B.(2000)	Urban Geography, Concept Publishing Co. Delhi.
8	Mayer H. M. & Cohen [1967]	Readings in Urban Geography, Central Book depot. Allahabad.
9	Northam ray M.(1975)	Urban Geography, John Willey & Sons, New York.
10	Ramachandran R.(1991)	Urbanization and Urban Systems in India,.new Delhi.
11	Robinson,Brian T(1973	Urban growth, Mathuen & Company, London.
12	Sidhartha K.& Mukherjee. S.(2000):	Cities-Urbanizations & Urban Systems. Kisalaya pub. Pvt.Ltd.,New Delhi.
13	Yeates & Garner (1971)	Readings in Urban Geography. The North American City. Harper & Row. New York.

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Paper 3.4 (A)- REGIONAL GEOGRAPHY OF INDIA

(For Competitive Exam)

OEC- (Open Elective)

Objectives: To understand the India in terms of various physical divisions, their important characteristics and intra-regional and inter regional linkages and to analyze natural and human resource endowments and their conservation and management. The study also synthesis the students with development issues and polices and programmes design for regional development.

Course Structure:

Unit- I	Location-size and shape- Administrative divisions -Economic position of India. Physiography: Himalayas, plains, Deccan plateau, & coasts. Drainage system: Northern (Himalayan) rivers, Southern rivers Climate: Seasons, Monsoon and mechanism of monsoons. Soils: types of soils. Natural vegetation and its types.	10 hours
Unit- II	Irrigation, types of Irrigation-Major multi-purpose projects-DVC, Bhakra Nangal, Nagarjunasagar, Tungabhadra. Agriculture- types of crops- Distribution and production of major crops: Rica, Wheat, Sugarcane, Cotton, Tea, Coffee and Horticulture: types of horticultural crops.	12 hours
Unit- III	Mineral and power recourses: Classification of Minerals-Distribution and production of Iron Ore, Manganese, Coal, Gold Petroleum, and Natural gas, Industries: Industrial regions of India, Distribution and production of sugarcane, Cotton textile ,Iron and steel, Chemical, Automobile industries.	12 hours
Unit- IV	Population: Growth and distribution of population, density, sex ratio and literacy. Settlements and types of settlements-Regional disparities and measures of regional disparities.	12 hours
Unit-V	Locating and labeling the given places on the map of India: capitals, towns, cities, Rivers, Mountains, Minerals, Industries Tourist spots, wild life and Airports, and ports.	05 hours

REFERENCE:

1	Chopra S.N	India an area study.
2	Dubey and Negi	Economic Geography of India.
3	Gopal Singh	Geography of India.
4	Khulhar	Regional geography of India.
5	Singh R.L	Regional geography of India.
5	Sharma and Continuo:	Economic and commercial Geography of India.
6	Ranganath	Regional and economic Geography of India (KanVer)Vidyanidhi , Gadag,
7	Goudar.M.B	Economic Geography of India.(Kan,Ver.) Vidyanidhi , Gadag
8	Mallappa	Geography of India (Kan.Ver)

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SEMESTER-III

Paper 3.4 (B)- REGIONAL GEOGRAPHY OF KARNATAKA

(For Competitive Exam)

(Open Elective)

Objectives: To understand the Karnataka in terms of various physical divisions, their important characteristics and intra-regional disparities in agriculture, and industries and to analyze natural and human resource endowments and their conservation and management.

Course Structure:

Unit- I	Karnataka: Location and extent, Administrative divisions- Physical divisions- Malanad, Maidan and Coastal. Drainage: East flowing and West flowing rivers. Climate-Mechanism of Monsoon, Soil and its types, and Natural Vegetation	10 hours
Unit- II	Water resource and Major River Projects -Tungabhadra, Krishna and Cauvery. River water disputes. Irrigation-types of Irrigation. Agriculture Crops-Rice, Jowar, Groundnut, Tobacco and Sugarcane, Tea Coffee cultivation, distribution and Production.	12 hours
Unit- III	Mineral Resources and Industries- Iron ore and Manganese, Bauxite. Industries: Iron and Steel, Sugar, cotton and Paper, Software Industries. Transport: Road, Railway and Air.	12 hours
Unit- IV	Human Resource: Growth & Trend of population, Density distributional pattern of population and its problems. Literacy, sex ratio, Urbanization – Definition, Urbanization in Karnataka, Regional Disparities and remedial measures to reduce regional imbalances.	12 hours
Unit-V	Locating and labeling the given places on the map of Karnataka: Towns Tourist spots, Industries, Major Ports of Karnataka. Knowledge based Industries, Rivers	12 hours

REFERENCE:

1	Karnataka State Gazetteer Department Govt. of Karnataka Bangalore	Karnataka State Gazetteer, Volume- I & II
2	Mallappa. P	Geography of Karnataka (Kannada Version)
3	Misra R.P	Geography of Mysore State
4	NBK Reddy and Murthy G.S	Regional Geography of Mysore State
5	Ranganath	Regional Geography of Karnataka
5	Nanjannavar S. S. & Meeranaik M.N.	Geography of Karnataka
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**PAPER- 3.5 QUANTITATIVE TECHNIQUES
(Practical-I)**

Objectives: The aim of this course is to provide some basic statistical procedures and quantitative methods to the students to be applied in to various themes in geography. To provide basic training for understanding these techniques and to apply and interpret the results derived, further the course aims to provide intensive training for in-depth Study of these techniques towards analyzing the geographical problems.

Course Structure:

Unit- I	Significance of quantitative methods in Geography-Population projection, semi average method -Least square method.	08 hours
Unit- II	Lorenz curve, Rank size rule, Nearest Neighbor Technique. Functional classification of town by Webber, Centrogrophic Analysis and Shape Index, Sphere of Unban influence.	12 hours
Unit-III	Agricultural Efficiency by Kendall's method Index of Concentration by Bhatia. S. S - Gibb's method of Index of diversification- Crop Combination by Weaver, Doi, Rafiullah and Athawale.	10 hours
Unit-IV	Network analysis (Detour Index). Topological properties of graphs, (by Garrison) Connectivity matrix of the graph. Alpha Index, Beta Index, and Gama Index, Breaking point theory.	10hours
Unit-V	Application of quantitative Methods in the Geographical Research.	05 hours

REFERENCE:

1	Aslam Mahmood (1977)	Statistical methods in geographical studies Rajesh Pub. New Delhi.
2	Gregory s. (1963)	Statistical methods and the Geographer, Longman's London.
3	Hammond R.& Mc Cullagh P.(1974)	Quantitative Techniques in Geography Clarendon Press, Oxford.
4	Haring, Lloyed (1975)	Scientific Geographic Research W. C. Brow Company, U.S.A.
5	Hagget peter (1990)	Geography a modern synthesis. Harper International, New York.
5	Kothari, C.R.(1996)	Research methodology. Vishwas Prakashan, New Delhi.
6	Mishra, R.P.(1991)	Research methodology in Geography. Concept Publishing, New Delhi.

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M. Sc IIIrd Semester Geography**PAPER- 3.6 STUDY OF AERIAL PHOTOGRAPHS & SATELLITE IMAGERIES
(Practical-II)**

Objectives: The main objective of the course is to introduce to the students that the basic principles of GIS. To introduce the students that GIS is a tool of spatial science and art of representing various types of data with aid of GIS technology. The course further aimed at introducing the basic elements of GIS, methodology and its application in the study of geography.

Course Structure:

Unit- I	Introduction to Aerial Photographs, Early history, method of taking photographs and Types of Aerial Photographs, Difference between aerial photo, satellite imageries and Maps.	08 hours
Unit- II	Determination of Scale of Aerial Photographs, Geometry of Aerial Photographs and scale of a vertical photographs	12 hours
Unit- III	Elements of Aerial Photo Interpretation, Pair of photographs, Use of Pocket Stereoscope, Mirror Stereoscope, Sketch Master Parallax bar and its advantages and disadvantages and 3-D view	12 hours
Unit- IV	Interpretation of Vertical Aerial Photographs with reference to land use, settlement pattern, drainage pattern and natural vegetation	08 hours
UNIT-V	Remote Sensing: meaning, Remote Sensing Satellites, Comparison of aerial photographs and satellite imageries and Interpretation of satellite imageries (Visuals)	08 hours

REFERENCE:

1	Chrisman N.R. (1997)	Remote sensing and Geographical Information Systems
2	Colwell, R. N. ed. (1960)	Manual of Photographic Interpretation, Falls Church, Va: American Society of Photogrammetry
3	Kang-tsung Chang (2008)	Introduction to Geographic Information Systems Tata McGraw Hill
4	Lillesand, T. M. & R. W. Kiefer (1979)	Remote Sensing and Image Interpretations John Willey& Sons Inc, New York
5	K. Kumarswamy	Remote Sensing for Environmental Studies
6	Poul. R. Wolf (1985)	Elements of Photogrammetry, Mc. Graw Hill, International Book Company, New York
7	Roscoe, J. H. (1960)	Photo Interpretation in Geography, In Manual of Photographic Interpretation, edited by R. N. Colwell, Falls Church, Va: American Society of Photogrammetry
8	Sabbins.F.F (1987)	Remote sensing: principles and Interpretations”, W. H. Freeman and Co, New York
9	Thomas Eugene Avery & Graydon Lennis Berlin	Fundamentals of Remote Sensing and Airphoto Interpretation V th Edition, Macmillan Publishing Company, New York

