

<b>Course Code</b>	<b>Economic Geography and Natural Resource Management</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>MGEOG20Y201</b>		<b>6</b>	<b>0</b>	<b>0</b>	<b>6</b>
<b>Pre-Requisites</b>	<b>Nil</b>	<b>Syllabus Version</b>			
		<b>100 Marks</b>			

### Course Objective

1. This course offers an introduction to the ways in which economic activities are organized over the earth's surface.
2. We all are witnessed to rapidly increasing integration of state economies.
3. The economic processes operating at different geographical scales are depending on the complex economic-political-social interactions that are framed at the global level.
4. The course explores the processes of globalization.
5. Seeks to provide understanding of today's increasingly interdependent world.

### course outcomes

1. Understand the concept of economic activity, factors affecting location of economic activity.
2. Gain knowledge about different types of primary activities.
3. Develop an idea about different types of secondary activities
4. Acquire knowledge about different types of tertiary activities.

### Students Learning Outcomes

After the completion of the course, Students will be able to

1. Recognize the significance of geographic concepts for understanding socio-economic processes and outcomes.
2. Appraise the different ways in which time and space interact and constrain each other with regards to economic activities and articulate how economic processes can be broken down into changes over time and variations across space.
3. Assess how society and economic actors organize themselves in space, the factors driving these complex spatial patterns, and the implications these spatial configurations have for the socioeconomic well-being of affected groups and societies.
4. Appreciate the complexity of economic development processes taking place across the world and how these are influenced by space.
5. Relate course content to current economic, social, and political events, and identify some of the geographical trends in economic processes and likely outcomes for societies.

### UNIT - I

**18**

Nature and Scope of Economics Geography Fundamental concepts in economics Geography Concept and classification of resources classification of Economics Sectors of Economics Primary Secondary and tertiary

World distribution of population Appraisal on of quality and quantity of human the world natural resources and economics development resource adequacy and scarcity limits to Growth

### UNIT - II

**18**

World Pattern of major natural resource land and soils biotic resources water resources mineral and energy resources oceanic.

<b>UNIT - III</b>	<b>18</b>
<p>Concept and techniques of demarcation of agricultural regions and their features Von thunens model of agricultural model and its Modification Classification of industries Thores of Industrial Location Case Studies of Selected industries Iron &amp; Slection Aluminium Chemical Texile. mens of transport Interational trade trade block globalisation and Indian Economic</p>	
<b>UNIT - IV</b>	<b>18</b>
<p>Conservation and Management of resources evatution of the concept principes philosophy and approaches to conservation resource conservation and management methods Resource appraisal and policy making Use of G/S and remote sensing in resource appraisal policy making and resource management sustanable development of resources.</p>	
<b>UNIT - V</b>	<b>18</b>
<p>Use and misuse of resources; global and indian scenario, resource development policies in india , Environmental preception in resource management, Impact assessment, Natural Hazards risk management Sustainable resourse management</p>	
<b>Reference Books:</b>	
<ol style="list-style-type: none"> <li>1. Alexander J.W. (1976): Economic Geography. Prentice Hall of India. New Delhi.</li> <li>2. Hartshorne, T.A. and J.W. Alexander (1988) –Economic Geography, Prentice Hall.</li> <li>3. Berry, Conkling &amp; Ray (1988): Economic Geography Prentice Hall of India New Jersey.</li> <li>4. Hurst Elliott (1986): Geography of Economic Behaviour. Unwin, London.</li> <li>5. Johnson R.J. &amp; Taylor D.J. (1989): A world in crisis. Basil-Blackwell, Oxford.</li> <li>6. Losch (1954): Economics of Location. Yale University Press New York.</li> <li>7. Redcliff M. (1987): Development &amp; the environmental crisis. Methuen. London</li> </ol>	

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Course Code	Settlement Geography	L	T	P	C
MGEOG20Y202		6	0	0	6
Pre-Requisites	Nil	<b>Syllabus Version</b>			
		<b>100 Marks</b>			
<b>Course Objective</b>					
The objective of the paper is to give to the students the basic ideas about the rural settlements, historical development during ancient, medieval and modern times, morphology of rural settlements, functions and rural settlement planning in India.					
<b>course outcomes</b>					
<ol style="list-style-type: none"> <li>1. Gain knowledge about definition of region, evolution and types of regional planning.</li> <li>2. Develop an idea about choice of a region for planning.</li> <li>3. Build an idea about theories and models for regional planning.</li> <li>4. Know about measuring development indicators.</li> </ol> <p>2. Also focuses on agriculture, power resources and industries of India</p> <p>3. Familiarizing the students with different concept of population geography like growth, distribution and migration. Also making them aware of the different ethnic groups residing in India (santhals ,naga and the bhils)</p>					
<b>Students Learning Outcomes</b>					
<p>By the end of this course, the student will:</p> <p>Describe what geography and World/Regional Geography are</p> <ul style="list-style-type: none"> <li>• Locate and define the major cultural regions of the world</li> <li>• Locate and define the major physical regions of the world</li> <li>• Briefly explain major historical events and the impact of these events on World Geography</li> <li>• Describe and know the location and distribution of various economic systems</li> </ul>					
<b>UNIT - I</b>					<b>18</b>
<ol style="list-style-type: none"> <li>1. Meaning Objectives and Scope of Settlement Geography</li> <li>2. Evolution Distribution Types and Patterns of Rural Settlements</li> <li>3. Rural House types</li> <li>4. Rural Service Centres</li> </ol>					
<b>UNIT - II</b>					<b>18</b>
<ol style="list-style-type: none"> <li>1. Evolution and Growth of Urban Settlements</li> <li>2. The Geographical setting of Urban Centers site Situation and Location</li> <li>3. Rank Size relationship</li> <li>4. Cities Central Place Central Place Theory Growth Centre Theory</li> <li>5. City Country Relationship Umland Rural - Urban ring</li> </ol>					
<b>UNIT - III</b>					<b>18</b>
<p>General Nature of city Structure</p> <p>(i) National Structure Morphology and Landuse</p> <p>(ii) Theories of Urban Structure the Concentric Zone Theory The Sector</p>					

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<b>UNIT - IV</b>	<b>18</b>
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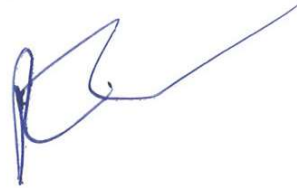
Theory the Multiple Mucle Theory- The Central Business District (CBD), Centrifugal and Centripetal torces in Urban Geography,Economic Base of Towns Basic/ non -basic Concept.

<b>UNIT - V</b>	<b>18</b>
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1. Urban Functions
2. Functional Classification of Towns.
3. Urban Planning (i) Types and Elements (ii) Urban Problems Blight and renewal
4. Urban Planning in India .

#### **REFERENCE BOOKS**

1. Boudeville J. R. (1966): Problems of Regional Economic Planning, Edinburgh Univ. Press, Edinburgh.
2. Friedmann J. (1966): Regional Development Policy: A Case Study of Venezuela, MIT Press, Massachusetts.
3. Friedmann J. (1973): Urbanization, Planning and National Development, Sage Pub., London.
4. Friedmann J. and Alonso W. (1966): Regional Development and Planning: A Reader, MIT Press, Massachusetts.
5. Friedmann J. and Alonso W. (1975): Regional Policy: Readings in Theory and Applications, MIT Press, Massachusetts.
6. Friedmann J. and Weaver C. (1979): Territory and Function: The Evolution of Regional Planning, Edward Arnold, London.
7. Hirschman A. O. (1958): The Strategy of Economic Development, Yale Univ. Press, New Haven.
8. Johnson E. A. J. (1970): The Organization of Space in Developing Countries, MIT Press, Massachusetts.



Course Code	Regional Development and Planning	L	T	P	C
MGEOG20Y203	प्रादेशिक नियोजन एवं विकास	6	0	0	6
Pre-Requisites	Nil	Syllabus Version			
		100 Marks			
<b>Course Objective</b>					
<ul style="list-style-type: none"> <li>• Acquire knowledge of general planning history, principles, and practice.</li> <li>• Learn examples of planning processes and documents, and integrate tools and techniques used in plan making, plan implementation and plan evaluation.</li> <li>• Develop knowledge in one of several alternative fields of specialization.</li> </ul>					
<b>course outcomes</b>					
<ol style="list-style-type: none"> <li>1. Gain knowledge about definition of region, evolution and types of regional planning.</li> <li>2. Develop an idea about choice of a region for planning.</li> <li>3. Build an idea about theories and models for regional planning.</li> <li>4. Know about measuring development indicators.</li> </ol> <p>2. Also focuses on agriculture, power resources and industries of India</p> <p>3. Familiarizing the students with different concept of population geography like growth, distribution and migration. Also making them aware of the different ethnic groups residing in India (santhals ,naga and the bhils)</p>					
<b>Students Learning Outcomes</b>					
<p>By the end of this course, the student will:</p> <p>Describe what geography and World/Regional Geography are</p> <ul style="list-style-type: none"> <li>• Locate and define the major cultural regions of the world</li> <li>• Locate and define the major physical regions of the world</li> <li>• Briefly explain major historical events and the impact of these events on World Geography</li> <li>• Describe and know the location and distribution of various economic systems.</li> </ul>					
<b>UNIT - I</b>				<b>18</b>	
Regional Planning Definition Evolution and Objectives Region and Regionalism Planing Regioes : Concept and Delineation. Spatial Organisation: Central Place Theory, Concept of Core and Periphery Friedmann's Model of Spatial Organisation and Economic Growth.					
<b>UNIT - II</b>				<b>18</b>	
Spatial Organisation: Central Place Theory, Concept of Core and Periphery Friedmann's Model of Spatial Organisation and Economic Growth.					
<b>UNIT - III</b>				<b>18</b>	
Regional Development Theories Development Theories of Myrdal and Hirschman. Economic and Export Base Model. Frank's Theory of underdevelopment.					

Approaches and Strategies of Regional Development. Growth Pole Theory. Agropolitan Development, Community Development, River Basin Planning. Metropolitan Planning ( With reference to India ).

Regional Planning in India. Regional Imbalances and Inequalities indicators of Regional Development. Regional Policies in Five Year Plans. Centre State Relations and Multilevel Planning Planning for Special Problem Regions. Hill areas Tribal areas, Drought prone areas and River basins

**REFERACES BOOK**

Daysch, C.H.J. & Others L: Studies in Regional Planning.

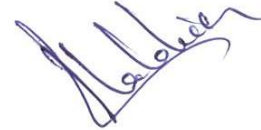

Deckinson R.E.: City Region and Regionalis

Freeman, E.W. : Geography and Planning


Golksin A. : Regional Planning and Development

Keeble, L. : Principle and Practice of Town and Country Planning.

Stamp L.D.: The Land of Britain : Its Use and Misure.



Course Code	Agricultural Geography (Elective)	L	T	P	C
MGEOG20Y204	कृषि भूगोल	6	0	0	6
Pre-Requisites	Nil	<b>Syllabus Version</b>			
<b>100 Marks</b>					
<b>Course Objective</b>					
The objectives of the paper / course are to understand relationships between physical nature of the region and overall agrarian practices.					
<b>course outcomes</b>					
At the completion of the course the students of Physical Geography will be able to:					
1. Demonstrate the importance of agricultural geography in the overall understanding of man and environment relationship.					
2. Understand the determinants of agricultural activities that lead to spatial variation.					
3. Demonstrate an understanding of the concept, principles and theories in the field of agricultural systems.					
4. Identify agricultural regions with special reference to India and understand the evolution and development of these regions					
<b>Students Learning Outcomes</b>					
The students should be made to learn major concepts, factors affecting agricultural land use, agricultural system of the world and the emerging scenario in agriculture.					
<b>UNIT - I</b>		<b>18</b>			
Nature Scope Sognificance and Development of Agricultural Geography Approaches the Study of Agricultural Geography Commodity Systems and regional systems orign and dispersad of Agricultural Sources of agricultural data.					
<b>UNIT - II</b>		<b>18</b>			
Determinants of Agricultural land use -physical economic social and techonological policy holding and land tenure systems Land reforms and use Agriculture Policy and Planning Selected Agricultural Cencepts and then measurement policy and planning Selected Agricultural concepts and then measurements cropping pattern crop conecetration intensity and then measurements cropping pattern crop conecetration intensity of opping degree of commercialization , Diversificaton and specialization efficiency and productivity crop combination rgions and agricultural development					
<b>UNIT - III</b>		<b>18</b>			
Agriculture typology and region ;Kostrovickis scheme og Agriculture typology critical review of wittleseys classification of agriculture regions,Method of agriculture regionalization					
<b>UNIT - IV</b>		<b>18</b>			
Theories of agricultural location based ion several multi-dimensioned lactors von Thunen,s theory of agricultural regions land use and land oapabrility					

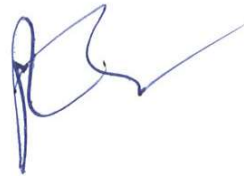
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Agricultural in India Land use and Shifting cropping pattern regional pattern of Productivity in India Green Revolution White Revolution Food deficient and Food Surplus regions Nutritional index Specific problems in Indian Agricultural and then Management and planning Agricultural Policy in India Contemporary Issues and Programmes role of irrigation fertilizers insecticides and pesticides technological know how Employment in the agricultural sector landless labourers women occupational and agricultural and agricultural activities.

**REFERENCES BOOKS**

- 1 Aiyer, A.K.Y.N.(1949) – Agricultural and Allied Arts in Vedic India
- 2 Grigg. D.G. (1974) – The Agricultural Systems of the world An Evolutionary Approach
- 3 Grigg. D.G.(1964) – An Introduction to Agricultural Geography Hutchinson & Co.Ltd.,
- 4 Illbery, B.W. (1985) – Agricultural Geography, Social & Economic Analysis, Oxford University Press.
- 5 Morgan. W.B. & S.C. Monton (1971) – Agricultural Geography Methuen, London.
- Randhawa, M.S. (1980) – An History of Agriculture in India Vols. I, II, III,IV ICAR, New Delhi.
- 6 Singh. J. and Dhillon S.S. (1994) – Agricultural Geography. Tata McGraw Hill, Publishing Co. • Ltd.

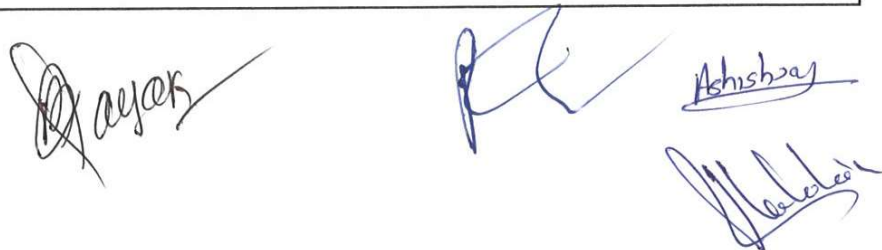


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Course Code	Remote Sensing and Geographical Information System(Elective)	L	T	P	C
MGEOG20Y205	सुदूर संवेदन तकनीक	6	0	0	6
Pre-Requisites	Nil	<b>Syllabus Version</b>			
		<b>100 Marks</b>			
<b>Course Objective</b>					
<ol style="list-style-type: none"> <li>1. The aim of this course is to apprise the students to various aspects of Aerial photographs.</li> <li>2. Also introduce about Remote Sensing and GIS.</li> <li>3. It will be teach about the important elements of the Geospatial technology.</li> <li>4. This course introduce about the earth revolutionary and rotation system.</li> <li>5. It gives the technical knowledge of satellite system.</li> </ol>					
<b>course outcomes</b>					
<p>At the completion of the course the students of Physical Geography will be able to:</p> <ol style="list-style-type: none"> <li>1. Understand the concepts and principles of remote sensing technologies and the history of their development.</li> <li>2. Demonstrate an understanding of the methodologies of extracting data from remotely sensed imagery.</li> <li>3. Acquaint themselves with processing and analysis of data collected from remote sensors.</li> <li>4. Demonstrate the knowledge of the concepts, principles and components of Geographical Information System.</li> <li>5. Apply the knowledge of remote sensing and Geographical Information System in assessment, planning and monitoring in real life application.</li> </ol>					
<b>Students Learning Outcomes</b>					
<p>After the completion of the course, Students will be able to</p> <ol style="list-style-type: none"> <li>1. Students will demonstrate knowledge of the foundations and theories of geographic information systems (GIS) and use the tools and methods of GIS.</li> <li>2. Students will demonstrate their knowledge of physical geography and the methods and techniques for observing, measuring, recording and reporting on geographic phenomena.</li> <li>3. Students will demonstrate their competence to work individually and as a team to develop and present a client-driven GIS solution.</li> <li>4. Student will be familiar with modern techniques in Geography.</li> <li>5. Students will be prepared to apply their skills in professional careers.</li> </ol>					
<b>UNIT - I</b>		<b>18</b>			
<p>Historical development of remote sensing as a technology - Relevance of remote sensing in geography -Concepts and basics: Energy source ,Energy Source Energy and radiation Principles energy interactions in the atmosphere and earth surface features ,remote sensing systems : Platforms, Sensors and radiation records .</p> <p>Applications : Air Photo and Image Landuse ., Landform and its processes ,weather studies and Studies of water resources Integration of Remote Sensing and Gis remote sensing and hazard managaent , remote sensing and environmental management.</p>					



<b>UNIT - II</b>	<b>18</b>
Image Processing : Types of imagery techniques of visual interpretation , Ground verification transfer of interpretes thematic information to base maps- digital processing : rectification and restoration , Image enhancement -contrast manipulation, Classification : Supervised and unsupervised ,post- classification analysis and accuracy assessment ,microwave sensing : Interpercation of slar imageries, Elements of passive microwave sensing	
<b>UNIT - III</b>	<b>18</b>
Spatial Scienece: Geography as a spatial science , Maps and Spatial information dynamics of spatial information,elements of infromation technology, geographic objects and their relations- defination and development of GIS, computer environment for GIS Spatial Data : Elements of Spatial data : data sources : Primary and Secondary census and Sample - data ; Structures , data conversion-comparison of raster and vector databases- methods of spatial interpolation- GIS data formats for the computer enviornment.	
<b>UNIT - IV</b>	<b>18</b>
GIS Techology : Coordinate system - basic Principles of cartography and computer assisted cartography for GIS- remote sensing data as a data source for GIS and integration of GIS and Remote Sensing - GPS and GIS technology ,data generation and limitations- visualization in GIS - Digital Elevation models (DEM and TINS)	
<b>UNIT - V</b>	<b>18</b>
GIS Application: GIS as a Decision support system -expert system for GIS- basic flow charts for GIS Application -GIS application -GIS standards ,Legal system and National GIS policy application of GIS in Land Information system Urban Managemant ,Environment Management and Emergency Response System.	

Reference Books:

1. Compbell J.: Introduction to Remote sension , Guilford,new York, 1989.
2. Curran, Paul J.: Principles of Remote Sensing Longman ,London 1985.
3. Hord R.M.: Digital Image Processing of Remotely Sensed Data , Academic, New York, 1983.
4. Luder D, Aerial Photography Interpretation : Principles and Application ,Cc Graw Hill, New York, 1959.



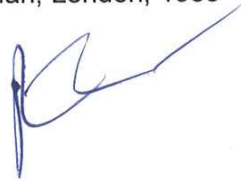

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Course Code	Dessertation / Project Work PRACTICAL / QUANTITATIVE TECHNIQUES. REMOTE SENSING AND GIS	L	P	T	C
MGEOG20Y206	प्रायोगिक	4	0	6	10
Pre-Requictives	Nil	<b>Syllabus Version</b>			
		<b>100 Marks</b>			
<b>PRACTICAL</b>					
<b>Section -A</b>	<b>Quantitative techniques</b>				
1 Product moment and Rank Correlation Coefficients, Linear Regression. 2 Hypothesis Testing : Chi-square and 't' tests. Analysis of variance and test; sampling 3 Running mean, mean centre, nearest neighbour Anlysis ; Lorenz Curve, 4 Normal distribution curve ,probability.					
<b>Section-B</b>	<b>Remote sensing and GIS</b>				
1 Air photos and photogrametry : Elements of photographic system : types, scales and ground coverage resolution, films, filters, aerial Cameras vartical photographs, relief displacement, airphoto interperatation. 2 Image processing: types of imagery, techniques of visual interpreptation, ground verification, transfer of interpreted thematic information to base maps- digital processing rectification & Restoration image enhancement. Application Air photo and image interputations and mapping landuse and studies of water resources. 3 Spatial Data : Elements of spatial data : quality and error variations raster and vetor data structure data conversion. 4 Elements of GIS : Data capute- database management systems : types and merits and demerits- data manipulation, analysis intergrated analysis of spatial and attribute data.					

### REFERENCE BOOKS

- 1 American Society of photogrammetry : Manual of Remote Sensing. ASP Falls Church,V.A
- 2 Barrette amd L.F Curtis : Fundamentals of Remote Sensing and air photo interpretation. Mcnillan, New Work, 1992.
- 3 compbell J. Introduction of Remote Sensing, Guilford, New York, 1989.
- 4 Curren, Paul J. Principles of Remote Sensing, Longman, London, 1985



Course Code	Subjective Presentation and Comprehensive viva	L	T	P	C
MGEOG20Y207	विषय प्रस्तुति एवं विस्तृत मौखिकी	0	0	6	6
Pre-Requictives	Null	<b>Syllabus Version</b>			
		<b>100 Marks</b>			
<b>Course Objective</b>					
<ol style="list-style-type: none"> <li>भूगोल विज्ञान का विशेषज्ञता के साथ ज्ञान प्रदान करना।</li> <li>विषय की समग्र और व्यापक जानकारी प्रदान करना।</li> <li>छात्रों में भूगोल विज्ञान के प्रति रुचि जाग्रत करना।</li> <li>भूगोल विज्ञान के अभ्यास के प्रवृत्ति को विकसित करना।</li> <li>भूगोल विषय में कुशलता एवं दक्षता को विकसित करना।</li> <li>भूगोल से संबंधित सैद्धांतिक एवं प्रायोगिक दोषों को दूर करना।</li> <li>भूगोल विषय के शोध कार्य को बढ़ावा देना।</li> </ol>					
<b>course outcomes</b>					
<ol style="list-style-type: none"> <li>भूगोल विज्ञान की क्षमताओं एवं विशेषताओं का ज्ञान करना।</li> <li>भूगोल विज्ञान दक्षता और उसकी सूक्ष्मता का ज्ञान प्रदान करना।</li> <li>भूगोल विज्ञान के ज्ञान को विस्तारित एवं प्रसारित करना।</li> <li>भूगोल विज्ञान के शोध कार्य एवं अनुसंधान का ज्ञान प्रदान करना।</li> </ol>					
<b>Students Learning Outcomes</b>					
<ol style="list-style-type: none"> <li>छात्रों में शोध कौशल का विकास होना।</li> <li>छात्रों में अनुकूलन की सोच विकसित होना।</li> <li>शोध के अभ्यास के लिए नूतन तकनीक, कौशल विधियां एवं प्रयोगों का विकास होना।</li> <li>शोध एवं विषयगत समस्याओं का निदान करने की क्षमता का विकास होना।</li> <li>विषय का विशेषज्ञता के साथ छात्र को दक्ष बनाना।</li> <li>शोध कार्य की समस्याओं का निदान होना।</li> <li>शोध कार्य को गति प्रदान करना।</li> </ol>					
प्रत्येक विद्यार्थी प्रश्नपत्र संख्या एक से पाँच पढ़े गये विषयों में से किसी एक विषय पर प्रस्तुति और विस्तृत मौखिकी देना होगी।					

*Sayan*

*R*

*Ashish*  
*Sharma*