SRI MEENAKSHI GOVERNMENT ARTS COLLEGE FOR WOMEN (A), MADURAI –
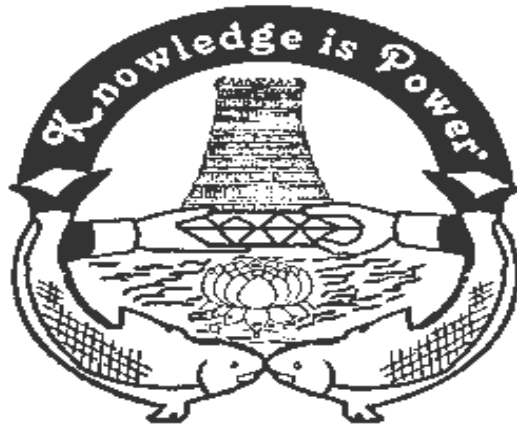
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(Re-Accredited with   "A" grade by NAAC)

DEPARTMENT OF GEOGRAPHY

Syllabus for M.SC Geography

CHOICE BASED CREDIT SYSTEM

2021-2022

DEPARMENT NAME: GEOGRAPHY

INTRODUCTION:

The Department of Geography was established in the year **1968** with UG course and in the year **1971** with PG course. At present department has **6** Regular staff members and **2** Guest Lecturers and **1** PTA Guest Lecture and 259 UG and 29 PG students among its various academic ventures. It produce so many scholars create more professionals in various fields. It is one of the center for Tamil Nadu Open University for B.Sc., Geography Course

COURSES OFFERED:

- **PG COURSE: M.SC GEOGRAPHY**

VISION OF THE DEPARTMENT

☐ To enlight and enrich the geographic information to the outreached

☐ **Mission of the department**

☐ Extending geographic knowledge at school level

☐ Make geography an interesting and inspiring subject to other discipline

☐ Make maps an indispensible tool to geographers as well as others

☐ Acquire technological development in global positioning system

☐ Provide geographical base to regional planning such as rural urban areas etc

☐ Provide economical development

☐ Provide necessary geographical information for the strategy

☐ Use geographical positioning system for Navigations

☐ Apply geographical knowledge in the field of survey

☐ Apply geographical knowledge in civil services

☐ Make the student with a strong geographical information technological base

MISSION

To enlight and enrich the geographic information to the outreached

PROGRAMME OUTCOME OF M.SC GEOGRAPHY

At the end of the programme the students will be able to:

PO1: CRITICAL THINKING

Students will apply questioning strategies, engage in reflective thinking, problem solving and testing arguments. This course explore the views about observation and interpretation, reasoning and inference, valuing and judging and the production of knowledge in their social context are considered.

PO2: ANALYTICAL ABILITY

The quality of information, opinion and arguments that exposed to daily basis. This includes the ideas arguments and assertions that the students hear or read in the course work

PO3: PROFESSIONAL CAPABILITY

To enhance the ability through skills and experiences. To create the specific skills for building the high quality professionals.

PO4: EXPERIMENTATION AND RESEARCH

The cause and effect relationship of this study manipulate that it has traditional type of qualitative.

PO5: SOCIAL TRANSFORMATION

In this process students move from ascribed status to achieved status. Science and technological developments triggered the society to sustain the new paradigm.

P.G Programme Specific Outcome (PSO)

After the completion of the programme Post graduate students will be able to

PSO 1 - Acquiring knowledge of physical and human geography

PSO 2 - Ability to analyse the problem of physical and cultural environments of both rural and urban areas

PSO3   - Conduct social survey project Enhancement ability of management.

PSO4 -   Application of modern instruments and Application of GIS and modern Geographical Map making techniques

PSO5   - Development of observation and interaction power and convert their potential into professional skill

SRI MEENAKSHI GOVT ARTS COLLEGE FOR WOMEN (AUTONOMOUS)

DEPARTMENT OF GEOGRAPHY

M.Sc .Syllabus –new Pattern-CBCS

(for those who are Admitted from july 2021 onwards)

semester	Core/elective	code	subject	Hours/week	Exam hours	credit	Int. marks	Ext. marks	Total
I	CORE 1	GA1	GEOMORPHOLOGY	6	3	5	25	75	100
	CORE 2	GA2	APPLIED CLIMATOLOGY	6	3	5	25	75	100
	CORE 3	GA3	BIO-GEOGRAPHY	5	3	4	25	75	100
	CORE 4	GL1	PRACTICAL GEOGRAPHY1 REPRESENTATION AND ANALYSIS OF PHYSICAL DATA	8	3	4	40	60	100
	ELEC 1	EGA	REGIONAL PLANNING/ GEOGRAPHY OF TRADE & COMMERCE	5	3	5	25	75	100
			TOTAL	30		23			
II	CORE 5	GB1	GEOGRAPHY OF INDIA	6	3	5	25	75	100
	CORE6	GB2	AGRICULTURAL GEOGRAPHY	6	3	5	25	75	100
	CORE 7	GB3	URBAN GEOGRAPHY	5	3	5	25	75	100
	CORE 8	GL2	PRACTICAL II REPRESENTATION AND ANALYSIS OF SOCIO ECONOMIC DATA-1	8	3	4	40	60	100
	ELEC 2	EGB	POLITICAL GEOGRAPHY/ SOCIAL GEOGRAPHY	5	3	5	25	75	100
			TOTAL	30		22			
III	CORE 9	GC1	ADVANCED CARTOGRAPHY	5	3	4	25	75	100
	CORE 10	GC2	REMOTE SENSING AND GIS	5	3	4	25	75	100
	CORE 11	GC3	GEOGRAPHICAL THOUGHT	5	3	4	25	75	100
	CORE 12	GL3	PRACTICAL III MAP MAKING, INTERPRETATION OF TOPOGRAPHICAL MAP, AERIAL PHOTO,SATELLITE IMAGERY AND APPLICATIONS OF GEOGRAPHICAL INFORMATIONS SYSTEM	8	3	4	40	60	100
	ELEC 3	EGC	RESEARCH METHODOLOGY/ INDUSTRIAL GEOGRAPHY	5	3	5	25	75	100
	NON-MAJOR ELECTIVE		FUNDAMENTALS OF REMOTE SENSING AND GIS	2	3	2	25	75	100
			TOTAL	30		23			
IV	CORE 13	GD1	POPULATION GEOGRAPHY	5	3	4	25	75	100
	CORE 14	GD2	MEDICAL GEOGRAPHY	5	3	4	25	75	100

CORE 15	GL4	PRACTICAL IV- REPRESENTATION AND ANALYSIS OF SOCIO ECONOMIC DATA- 2	8	3	4	40	60	100
ELEC 4	EGD	TRANSPORT GEOGRAPHY/ GEO STATISTICAL TECHNIQUES	5	3	5	25	75	100
CORE 16	GPW	PROJECT	7		5	80	20	100
		TOTAL	30		22			
		GRAND TOTAL	120		90			

Programme: M.Sc GEOGRAPHY　　　　　　**Part III: Core1**

Semester　: 1　　　　　　　　　　　　**Hours　: 6 P/W　90Hrs P/S**

Sub. Code　: GA1　　　　　　　　　　　**Credits: 5**

TITLE OF THE PAPER: GEOMORPHOLOGY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	6	3	1	1	1

PREAMBLE: It is a branch of physical geography it explains geomorphic process, traditional process, concept of normal cycle of errotion climatic, geomorphology and applied geomorphology

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand the basic concept and development of geomorphology.	1	18
UNIT 2 CO2: Acquire knowledge about geomorphic process.	2	18
UNIT 3 CO3: Explains about Gradational process.	3	18
UNIT 4 CO4: Analyse the concept of normal cycle of erosion and development of slopes	4	18
UNIT 5 CO5: Familiar with climatic geomorphology and applied geomorphology.	5	18
SYLLABUS **UNIT I:** Nature, Scope and Development - Basic Concepts - Recent Trends.		

UNIT II: Geomorphic Processes - Endogenic - Diastrophism, Folds, Faults, Continental Drift - Plate Tectonics, Earthquakes and Volcanoes -Exogenic - Weathering and Mass movement.

UNIT III: Gradational Processes - Work of running water - Glacial landforms - Aeolian landforms-Karst landforms - Works of waves and coastal land forms - Classification of Coasts.

UNIT IV: Concept of Normal cycle of erosion - Davisian view - Peneplain Concept, Penck's view - Modification of the Cycle concept and Hack's view- Dynamic equilibrium concept . Development of slopes - Ideas of Davis, Penck and King.

UNIT V: Climatic Geomorphology - Concept of Morphogenetic Regions - Applied Geomorphology with reference to Mineral discovery, Engineering and Hydrological studies.

BOOKS FOR REFERENCE

  1. Col. Bhaskar Sanka - EarthQuakes Peacock books - 2009.

  2. Chauhan R.N - Text book of Physical Geography -ABD Publisher, Jaipur -2008.

  3. Dayal.P Text Book of Geomorphology - Shukla Book Depot , Patna - 1995.

  4. Majid Hussain - Physical Geography - Rawat Publication, New Delhi - 2000.

  5.Nizamuddin Khan- An Introduction to Physical Geography , Concept Publishning Company, New Delhi-2001.

  6. Savindra Singh - Physical Geography - Prayag Pustak Bhawan Allahabad - 2002.

  7. Sidhartha.k - The Earths Dynamic Surface – Transworld Media & Communications – Kisalaya   Publications Pvt. Ltd., Patna - 1998.

  8. Thornbury W.D - Principles of Geomorphology - John Willey &Sons, Inc New   York - 1992.

  9. Tricart & Cailleux Climatic Geomorphology-Arnold Publication.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Nature, Scope and Development -	6	Chalk and Talk using ppt.
	Basic Concepts	6	Chalk and Talk using ppt.
	Recent Trends.	6	Chalk and Talk using ppt.
UNIT 11			
	Geomorphic Processes - Endogenic	5	Maps, Charts and Models.
	Diastrophism, Folds, Faults, Continental	8	Maps, Charts and Models.

	Drift - Plate Tectonics, Earthquakes and Volcanoes		
	Exogenic - Weathering and Mass movement through LCD Presentation.	5	Maps, Charts and Models.

UNIT III

	Gradational Processes - Work ofrunning water- Glacial landforms	6	Models,ppt and VLC.
	Work of Aeolian landforms-Karstlandforms -	6	Models,ppt and VLC.
	Works of waves and coastal land forms - Classification of Coasts.	6	Models,ppt and VLC.

UNIT IV

	Concept of Normal cycle of erosion - Davisianview - Penck's view	6	Charts and ppt.
	Modification of the Cycle concept and Hack's view-	4	Charts and ppt.
	Dynamic equilibrium concept . Development of slopes - Ideas of Davis, Penck and King.	6	Charts and ppt.

UNIT V			
	Climatic Geomorphology - Concept of Morphogenetic Regions	6	VLC and ppt.
	AppliedGeomorphologywith referencetoMineral discovery	4	VLC and ppt.
	Engineering and Hydrological studies.	6	VLC and ppt.

Course Outcomes (Cos)	Programme Outcomes (Pos)					Programme Specific Outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	3	3	4	3	3	4	3	3	4	3.33
CO2	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	3	3	4	3	3	3	4	3	3	4	3.3
CO5	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score											3.926

Result: The Score for this Course is 3.926 (High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                      Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                             Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY **Part III: Core 2**
Semester   : 1 **Hours   : 6 P/W   90Hrs P/S**
Sub. Code   : GA2 **Credits: 5**
TITLE OF THE PAPER: APPLIED CLIMATOLOGY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	6	2	1	1	2

PREAMBLE: It is the branch of physical geography it explain climatic events, atmospheric disturbance, climatic classification and impact of climate.

COURSE OUTCOME	Unit	Hrs P/S
At the end of the Semester, the Students will be able to		
UNIT 1 CO1: Understand the nature and scope of applied climatology, know the mechanism of monsoon and climatic classification.	1	18
UNIT 2 CO2: Analyze the nature and hazards of the atmosphere.	2	18
UNIT 3 CO3: Understand the climatic changes.	3	18
UNIT 4 CO4: Acquire knowledge about manmade climate.	4	18
UNIT 5 CO5: Explain about the weather observation, forecasting.	5	18

SYLLABUS

UNIT I: Introduction - Nature and Scope of Applied Climatology   Mechanism of Indian Monsoon-Impact and Significance of Indian Monsoon- Basic of Climatic Classification - Climatic Classification of Koppen.

UNIT II The Nature and Hazard of Atmospheric Extreme Events -Tropical Cyclones, Thunderstorms and Tornadoes . Formation- Place of Occurrence and Associated Hazards.

UNIT III Past and Future Climate - Evidences of Climatic Changes over Geologic Time - Natural Causes of   Climatic Changes – Short and Long Term – Theories Related to Climatic Changes - Green House Effect, Ozone Depletion, Global Warming and Sea Level Rise.

UNIT IV Man Made Climate - Human Comfort Zone - Impact of Climate on Society, Climate and Clothing, Climate and Housing - Urban Climate   and Elements that affect the Urban Climate - Heat Island Concept- Causes and Effects of Acid Rain.

UNIT V Weather Observation - Analysis and Forecasting - Measurements   of Weather Observation - Non-Instrumental and Instrumental   Observation - Principles of Weather Forecasting Short, Medium and Long Range Forecasting - Synoptic, Statistical and   Numerical Methods - Satellite Climatology - Meteorological Satellites Orbits, Sensors and Forecasting.

BOOKS FOR REFERENCE
1.   Berry and Chorley – Atmosphere, Weather and Climate – Metheun.

2. Glenn T - Trewartha & Lyle H. Horn An Introduction to Climate - McGraw Hill Book Company- New Delhi - 1980.
3. Howard J CritchField - General Climatology - Prentice Hall of India New Delhi - 1999.
4. Keith Smith- Principles of Applied Climatology - McGraw Hill Book Co., New york. - 1998.
5. Lal D.S- Climatology - Chaitanya Publisher's House, Allahabad - 1998.
6. Lal.M- Global Warming - Concerns for Tomorrow - Tata McGraw Hill publishing company Ltd - New Delhi - 1993.
7. Siddhartha.K - Atmosphere Weather and Climate Kisalaya Publication Pvt . Ltd New Delhi - 2001.
8. Oliver. John E, and John .J Hiddore - Climatology - An Atmospheric Science - Pearson Education (Singapore) Pvt.Ltd, New Delhi - 2003.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Introduction - Nature and Scope of Applied Climatology	6	Chalk talk and ppt.
	Mechanism of Indian Monsoon	6	Map, Models and ppt.
	Basic of Climatic Classification - Climatic Classification of Koppen.	6	Chalk talk and ppt.
UNIT 11			
	The Nature and Hazard of Atmospheric Extreme Events -Tropical Cyclones .	7	Maps,VLC.
	Thunderstorms and Tornadoes . Formation-	7	Maps,VLC.
	Place of Occurrence and Associated Hazards.	4	Maps,VLC.
UNIT III			
	Evidences of Climatic Changes over Geologic Time - Natural Causes of Climatic Changes	6	Chalk and Talk,VLC
	Short and Long Term – Theories Related to Climatic Changes	6	Chalk and Talk,VLC

	Green House Effect, Ozone Depletion, Global Warming and Sea Level Rise.	6	Chalk and Talk,VLC
UNIT IV			
	Human Comfort Zone	6	Chalk and talk, VLC.
	Climate and Clothing	6	Chalk and talk, VLC.
	Urban Climate	6	Chalk and talk, VLC.
UNIT V			
	Weather Observation - Analysis and Forecasting	6	Meterological reports and weather instrument models.
	Non-Instrumental and Instrumental Observation- Principles of Weather Forecasting	6	Meterological reports and weather instrument models.
	Synoptic, Statistical and Numerical Methods - Satellite Climatology	6	Meterological reports and weather instrument models.

Course Outcomes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	3	4	3	3	3	4	4	4	3	3	4	4	3	4	4
CO5	3	3	4	4	4	3	3	4	4	3	3	4	4	3	3
Mean Overall Score															3.8

Result: The Score for this Course is 3.8   (High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                    Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                         Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%

APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: core**
Semester   : I   **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : GA3   **Credits : 4**
      TITLE OF THE PAPER: Bio - Geography

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: To study the distribution of species and eco system in geographic space and geological time.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand the definition & scope: To interact between ecological factors and human begins.	1	15
UNIT 2 CO2: know the origin of fauna & flora: method of relating time and relationship between events and life.	2	15
UNIT 3 CO3: Examine the plant life through geological period and geographical distribution	3	15
UNIT 4 CO4: Identify the relationship between geographical distribution and environment.	4	15
UNIT 5 CO5: Analyze the interaction between environment and man.	5	15

SYLLABUS

UNIT I: Definition, Scope and Development - Functions of Bio Geography - Ecosystem : Types of Ecosystem – Terrestrial and Aquatic, Functioning of Ecosystem, Ecological   Production - Energy Flow- Biosphereic Cycles : Hydrological, Carbon, Oxygen and Nitrogen.
UNIT II Origin of Flora and Fauna : Evolution of Early Life – Paleozoic – Precambrian, Cambrian, Ordovician, Silurian, Devonian , Carboniferrous, Permian; Mesozoic – Triassic, Zurassic, Cretacious; Cainozoic- Eocene, Oligocene,Miocene, Pliocene, Plestocene,Holocene.
UNIT III Plants Life: Factors affecting – Climate, Soil -Profile; Classification; Plant Classification – Taxonomic; Climatic; Biomes – Forest Biomes: Savanna Grassland, Desert and Tundra.
UNIT IV Animal Life: Nature, Classification – Environmental Adaptation, Taxonomic. Zoo Geographical Regions - Extinction of Species – Causes –Vanishing animals.
UNIT V Man and His Environment: Environmental Degradation – Land, Water and Air, Environmental Impact Assessment; Environmental Management and Conservation.

BOOKS FOR REFERENCE
1. Essentials of Bio Geography – H.S.Mathur ; Pointer Publishers, Jaipur – 302003- 2003
2. Bio Geography – H.Robinson ; The Engligh Language Book Society and Mac Donald and Evans, London and Plymouth -1982
3. Basic Bio Geography – Nigel Pears –Longman, London and New york - 1985
4. Environmental Biology – Agrawal .K.C- Agro Botanical Publishers, Bikaner- 1993
5. Environmental Geography , H.M. Saxena- Rawat Publications, Jaipur and   New Delhi-2004
6. Plant Geography – Anil K. Charan – Nice Printers , New Delhi-1992

7. Environmental Biology and Toxicology – P.D.Sharma- Rastogi and company , Meerut- 1993
8. Environmental Geography- Savindra Singh, Prayag Pustak Bhavan, Allahabad-1997

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1 Definition& scope			
	Bio- Geography	5	Chalk and Talk – student evaluation
	Eco system	5	PPT lecture.
	Biosphere cycles	5	PPT & Reference _ Journals..
UNIT 11 Origin of flora & Fauna			
	Evolution	5	Chalk and Talk – student evaluation.
	Early period	5	Reference _ Journals
	Recent period	5	Video / ICT.
UNIT III plant life			
	factors	5	PPT lecture.
	classification	5	Chalk & Talk and reference.
	Biomes	5	Videos / e-content.
UNIT IV animal life			
	classification	5	PPT lecture
	Geographical regions	5	Reference and journal
	Extinction of species	5	PPT lecture
UNIT V Man & Environment			
	Degradation	5	Field work - Questionnaire
	EIA	5	PPT lecture
	Management	5	PPT / e- content

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	

CO1	4	4	5	5	5	3	4	4	4	5	4.3
CO2	5	5	5	4	4	4	5	5	4	4	4.5
CO3	3	4	5	5	4	4	5	4	5	4	4.3
CO4	5	4	4	4	5	5	4	4	5	5	4.5
CO5	3	4	5	4	5	5	4	5	5	5	4.5
Mean Overall score											4.42

Result: The Score for this Course is 4.42 (very high relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs   Total of Value
                            Total No. of Pos &PSOs

Mean Overall Score of COs = Total of MeanScore
                            Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   Part III: core
Semester   : I   Hours   : 5 P/W   75Hrs P/S
Sub. Code   : GL1   Credits : 4
   **TITLE OF THE PAPER: PRACTICAL GEOGRAPHY – 1 REPRESENTATION
AND ANALYSIS OF PHYSICAL DATA**

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	8	3	1	3	1

PREAMBLE: Analysis of physical data through profiles – drainage pattern - stream order and analysis and representation of climatic data. This method explains the spatian characteristics of the earth/part of the earth.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: understand method of representation of relief. Acquire knowledge of preparation of drawing of slope maps.	1	15
UNIT 2 CO2: understand different methods of slope analysis	2	15
UNIT 3 CO3 demarcation of drainage basin of watershed estimation of basin area. Drainage frequency, bifurcation ratio.	3	15
UNIT 4 CO4: skill of drawing of map, grapes, diagrams scale.	4	15

SYLLABUS

UNIT I: Profiles –Serial – Superimposed - Projected – Composite. Block diagram – Layer and Multiple cross section method .
UNIT II Slope Analysis – Smith, Wentworth and Robinson Methods.
UNIT III Morphometric Measures – Stream ordering – Strahler's method – Bifurcation ratio Drainage basin – Density and Shape Index.
UNIT IV Climatograph – Thermo isopleth – Rainfall dispersion diagram – Rainfall variability - E.E.Foster's Climograph – Water Balance Graph.

BOOKS FOR REFERENCE
1. Gopal singh –Map Work and Practical Geography –Vikas publishing House Pvt Ltd ,New Delhi-1999
2. Ishtiag.M – Practical Geography – Heritage Publishers , New Delhi -1989.
3. Misra R.P and Ramesh.A – Fundamentals of Cartography, Concept Publishing Company ;New Delhi -2002.
4. Md Zulfeguar Ahmed Khan – Text book of Practical Geography , Concept Publishing Company ; New Delhi – 1998.
5. Monkhouse .F.j- Maps and Diagram – Methuen and company Ltd,London-1994
6. Singh.R.L – Elements of Practical Geography , Kalyani Publishers New Delhi – Ludhiana- 1979.
7. Pijushkanti Saha & Dr.Partha Basu – Advanced Practical Geography , Publisher Arunabha Sen ; Kolkata –2004.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			

		12	Demonstration with topographyical maps.
	Profiles – serial – superimposed- projected- composite		
	Block diagram layer and multiple cross section method	12	Demonstration with topographyical maps

UNIT 11

	Slope analysis- smith Slope analysis- wentworth	8	Demonstration with topographyical maps
	Slope analysis- wentworth	8	Demonstration with topographyical maps
	Slope analysis- Robinson methods	8	Demonstration with topographyical maps

UNIT III

	Morthometric measures	12	Demonstration with topographyical maps
	Drainage basin- Density	6	Demonstration with topographyical maps
	Shape Index.	6	Demonstration with topographyical maps

UNIT IV

	Climatograph – Thermo isopleth	8	Demonstration with meterological report and climatic data.
	Rainfall dispersion diagram – rainfall variability	8	Demonstration with meterological report and climatic data.
	E.E.Foster'S climograph- water balance graph	8	Demonstration with meterological report and climatic data.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	4	5	5	4	5	4	5	4.7
CO4	5	4	5	4	5	5	5	5	5	5	4.8
mean Overall score											4.375

Result: The Score for this Course is 4.375 (very high)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs = $\dfrac{\text{Total of Value}}{\text{Total No. of Pos \& PSOs}}$	Mean Overall Score of COs = $\dfrac{\text{Total of MeaScore}}{\text{Total No. of COs}}$

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Elective I**
Semester: I   **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : EGA   **Credits : 5**

TITLE OF THE PAPER: REGIONAL PLANNING

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: Regional planning deals with the efficient placement of land-use activities, infrastrucute, and settlement growth across a larger area of land than an individual city or town. Regional planning is a sub-field of urban planning as it relates land use practices on a broader scale.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: understand and evaluate the concept of region in geography and its role and relevance in regional planning	1	15
UNIT 2 CO2: know the goals and objectives of local and regional planning	2	15
UNIT 3 CO3 identify the futre urban development of the territory in a more sustainable manner	3	15
UNIT 4 CO4: understand the need for regional cooperation for development and identify integrated area development planning	4	15
UNIT 5 CO5: explore the forward and backward linkages of regions with the rest of the world to identify the issues relating to the development of the region through the process of spatial organization of various attributes and their inter relationship. To identify the causes of regional disparities in development, perspectives and policy inperatives.	5	15

SYLLABUS

UNIT I: Concept of Region - Single and Multifactor regions - Functional and Formal regions; Techniques of regional delimitation-Classification - Hierarchy of regions.

UNIT II Regional Planning –Goals and Objectives; Scale of Planning - Local and Regional Planning regions - Five year plans.

UNIT III Spatial Planning – Town and Country Planning: River Valley Planning - Sectoral Planning – Economic Planning - Industrial Planning.

UNIT IV National and State level planning programmes in India - Identification - Integrated Area Development Planning

UNIT V Economic Regionalization of India - Macro, Meso and Micro level - regional disparities and problems of backward regions - Methods of Identification, levels and trends of development and problems of development.

BOOKS FOR REFERENCE
1. Agarwal R.C - Economics of Development and Planning(Theory and Practice) - Lakshmi Narain Agarwal,Agra 2008.
2. Anand Sarup & Sulabha Brahma - Planning for the million -Wiley Eastern Ltd - New Delhi - 1990.
3. Koteswara Rao - Regional planning Resources & Rural Development in India - Chergh Publication ,Allahabad - 1990.
4. Kunhaman M - State Level Planning In India - Classical Publishing Company, New Delhi – 1990

5.   Majid Husain – Geography of India – Tata McGraw – Hill Publishing Company Limited, New Delhi 2008.
6.   Misra R.P- Regional planning –Concept Publishing company, New Delhi- 2002.
7.   Nath.V – Regional Development and Planning in India- Concept Publishing company, New Delhi-2006
8.   Rajiv Ahir- Geography –Spectrum Books Pvt.Ltd, New Delhi-2006
9.   Surender Singh-Geography-Tata McGraw-Hills publishing Company Ltd,New Delhi-2007
10.   Tripathi R.S. & Tiwari R.P - Regional Disparities and
    Development in India - Ashish Publishing House - New Delhi – 2000

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Concept of region – single and multifactor regions	6	Chalk and talk method using maps and atlas
	Functional and formal regions	3	Chalk and talk method using maps and atlas
	Techniques of regional delimitation classification hierarchy of regions	6	Chalk and talk method using maps and atlas
UNIT 11			
	Regional planning- goals and objectives	5	Planning reports ppt.
	Scale of planning - local and regional	5	Planning reports ppt
	Planning regions- five year plans	5	Planning reports ppt
UNIT III			
	Spatial planning- town and country planning	5	Planning reports ppt
	River valley planning – sectoral planning	5	Planning reports ppt
	Economic planning - industrial plannig	5	Planning reports ppt
UNIT IV			
	National level planning	5	Chalk and talk and planning programmes through ppt
	State level planning in india	5	Chalk and talk and planning programmes through ppt

	Identification- integrated area development planning	5	Chalk and talk and planning programmes through ppt
UNIT V			
	Economic regionalization of india- mecro, maso and micro level	5	Using maps atlas and VLC.
	Regional desparities and problems of backward regions	5	Using maps atlas and VLC.
	Methods of identification, levels and trends of development and problems of development	5	Using maps atlas and VLC.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.8

Result: The Score for this Course is   4.8 (VERY High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs = Total of Value	Mean Overall Score of COs = Total of MeaScore
Total No. of Pos & PSOs	Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme: **M.Sc GEOGRAPHY**　　　　　　**Part III : Elective I**
Semester　　: **1**　　　　　　　　　　　　**Hours　: 5 P/W　75Hrs P/S**
Sub. Code　: **EGA**　　　　　　　　　　　**Credits: 5**

TITLE OF THE PAPER: GEOGRAPHY OF TRADE AND COMMERCE

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: its branch of economic geography. It explains market, trade in internal and international and trade policies.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1 know the significance of commercial geography	1	15
UNIT 2 CO2:　understand the development, delineation and classification of market	2	15
UNIT 3 CO3: analyse the market structure	3	15
UNIT 4 CO4: understand the significance of trade and its role in world and regional economy	4	15
UNIT 5 CO5: Explain about the Indian trade and policy	5	15

SYLLABUS

UNIT I: Nature, scope & significance of commercial geography – Approaches and Development.
UNIT II:Development of marketing – Delimitation of market, classification of markets – Permanent, Fairs, Retail, Wholesale, Formal and Informal markets, Modern markets, functional relationship – Hierarchy of Market Canters, Market areas, Consumer Behaviour, Travel pattern.
UNIT III:Marketing structure – Regulated and rural markets, Nature of inter-urban and intra urban marketing and development – Role of market canters in regional and commercial development. Planning for the development of modern market places
UNIT IV:Significance of Trade and its role in world and regional economy -   History of trade - Type of trade flow of commodities - International trade, Trading zones - Europe, North America, Latin America, Africa, Australia, Asia. Flow of Commodities in trade blocks - EU, ASEAN, EFTA, LAFTA and SAARC
UNIT V: Indian Trade - Types: Internal and International - Impact on Indian Agriculture and Industry - Recent trends in Indian trade - Trade policy.

 BOOKS FOR REFERENCE:

  1. Berry, B.J.L. – Geography of Market Centres and Retail Distribution. Prentice Hall, New Yourk – 1967.

2. Davis R.L. – Marketing Geography – methuen, London – 1976.
3. Garnier, B.J. and Delobez.A. – Geography of Marketing – Longman, London – 1977.
4. Losch A – Economic of Location – Yale University Press, new Heaven – 1954.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.4

Result: The Score for this Course is 4.4   (VERY HIGH)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                   Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                          Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY **Part III: CORE 5**
Semester   : II **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : GB1 **Credits : 5**
TITLE OF THE PAPER: GEOGRAPHY OF INDIA

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	6	3	1	1	1

PREAMBLE: The geography of india is relegional study, is essentially diverse, extremely diverse, with landscape ranging from snow- capped mountain ranges to deserts, plains, hills and plateaus. India comprises most of the Indian subcontinent situated on the Indian plate, the northerly portion of the Indo-Australian plate.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: understand the variability of physiography, climate in india justifies judicious use of natural resources such as water, soil, forest, etc., to maintain developments in all areas.	1	15
UNIT 2 CO2: describtes major crops, types of farming and agricultural practices in india.	2	15
UNIT 3 CO3: analysis uneven distribution of natural and human- made resources. Classifies different types of industries based on raw materials, size and ownership.	3	15
UNIT 4 CO4: interprets the india map for uneven distribution of population draws bar diagram to show population of different countries/ india/ states.	4	15
UNIT 5 CO5: understand the transportation and communication and nature and role of international trade.	5	15

SYLLABUS

UNIT I: Location, Frontiers, Spatial Relation -Strategy - Structure and Relief - Soil – Flora and Fauna – Climate - Drainage - Irrigation, Multipurpose Projects.
UNIT II Agriculture - Distribution of Major Crops – Rice, Wheat, Sugarcane, Jute, Cotton, Tea and Coffee. Livestock and Fisheries - Impact of Five Year Plans and Agricultural Development
UNIT III Power Resources - Distribution - Coal and Petroleum, Hydel, Thermal and Atomic Plant- Mineral Resources - Distribution – Iron, Manganese, Mica and Bauxite - Major Industries - Iron and Steel, Textile, Sugar, Small Scale and Village Industries.
UNIT IV Population Distribution and Density - Growth and Trends
UNIT V Development of Transport and Trade - Land, Air and Water Transport - Ports and Harbours – Government Policies of Trade- Patterns of trade - Imports and Exports- Field Work.

BOOKS FOR REFERENCE

1.   Dr.Balbhir Singh Negi - Geography of Resources - Kedarnath , Ramnath - Meerut, New Delhi.

2. Census Atlas National Volume - 1981.
3. Census Atlas National Volume - 1991.
4. Gopal Singh - A Geography of India - Atma Ram & Sons, New Delhi - 2006.
5. Jasbir Singh , Dhillan.S.S. - Agricultural Geography - Tata McGraw Hill Publishing Company Ltd.2000.
6. Land Resources Atlas of India - 1996.
7. Majid Hussain – Geography of India – Tata McGraw Hill Ltd, New Delhi - 2008.
8. Memoria.C.B. - Economic and Commercial Geography - Kitab Mahal, Allahabad - 1970.
9. Memoria.C.B. - Economic and Commercial Geography of India -S.Chand and Co, New Delhi - 1977.
10. Printhwish Kumar Roy and Somnath Mukherjee.N.W.-
Economic Geography , An Appraisal of Resources -
Central   Book Agency, Kolkatta - 1992.
11. Prithvish Nag and Smitha Sen Gupta - concept Publishing Company -
New Delhi.2002.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Location,Frontiers, spatial relation- strategy- structure and relief	6	Using maps and atlas
	Soil – flora and fauna- climate	6	Using maps and atlas
	Drainage – Irrigation, Multipurpose projects.	6	Using maps and atlas
UNIT 11			
	Agriculture – distribution of major crops- rice, wheat, sugarcane, jute, cotton, tea and coffee	8	Agriculture report using ppt, maps and atlas.
	Livestock and fisheries	5	Agriculture report using ppt
	Impact of fice year plans and agricultutal development	5	Agriculture report using ppt
UNIT III			
	Power resources- distribution	8	Chalk and talk using maps and atlas.
	Mineral resources- distribution	8	Chalk and talk using maps and atlas.
	Major industries small scale and village industries	8	Chalk and talk using maps and atlas.

UNIT IV				
	Population distribution	4		Sences report using maps and atlas.
	density	4		Sences report using maps and atlas
	Growth and trends	4		Sences report using maps and atlas
UNIT V				
	Development of Transport, land and water	10		Chalk and talk using maps and atlas.
	Air transport- ports and harbours	4		Chalk and talk using maps and atlas.
	Government policies of trade- patterns of trade- imports and exports	4		Chalk and talk using maps and atlas.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.4

Result: The Score for this Course is 4.4   (very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value   Mean Overall Score of COs = Total of MeaScore
                Total No. of Pos & PSOs   Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Core 6**
Semester   : II   **Hours   : 6 P/W   90Hrs P/S**
Sub. Code   : GB2   **Credits :4**
    TITLE OF THE PAPER: AGRICULTURE GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	4	2	1	1	1

PREAMBLE: it is a branch of economic geography, explain the approaches, agricultural types and determinants, modernization of agriculture, green revolution and theories. Analyse the agricultural data agricultural regions.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: understand nature, scope and significance of agricultural geography	1	18
UNIT 2 CO2: acquire knowledge about agricultural determinants modernization of agriculture- green revolution	2	18
UNIT 3 CO3: know the significance von thunen's theory and land use and land capability classification	3	18
UNIT 4 CO4: evaluate the agricultural productivity	4	18
UNIT 5 CO5: understand the regionalization of agriculture	5	18

SYLLABUS

 UNIT I: Nature, scope and significance of Agricultural Geography - Approaches to the study of agricultural geography.

UNIT II Agricultural types and their characteristics, Whittlessey's Classification - Determinants   of Agriculture - Physical, Economical, Social, Institutional and Technological factors - Modernization of Agriculture - Green Revolution and its implications.

UNIT III Von Thunen's Theory of agricultural location and its modification, Land use and land capability classification.

UNIT IV Agricultural productivity - Determinants - Agricultural Statistics - Measurements of Agricultural productivity.

UNIT V Regionalization of Agriculture - Cropping pattern, Crop Combination - Ranking, Concentration and Diversification -Agricultural regions of India and TamilNadu.

BOOKS FOR REFERENCE

1. Jasbir singh & S.S. Dhillon - Agricultural Geography - Tata Mc Graw Hill -1994.
2. Majid Husain - Systematic Agricultural Geography - Rawat Publication Jaipur - 2002.
3. Morgan.W.B& Munton.R.J.C - Agricultural Geography-Methuen&co Ltd - 1981.
4. Sharma.B.L - Applied Agricultural Geography - Rewat Publications Jaipur - 1994.
5. Shaji.Mohammed - Agricultural geography of South Asia - Macmillan India Ltd - New Delhi - 2000.
6. Siddhartha.K - Economic Geography - Kisalya Publications Pvt.Ltd - 2000.
7. Raina.J.L - Agricultural Geography - Pointer Publishing Jaipur - 1997.
8. Yadav.S.S.&Ram Kumar Gurjar - Agricultural Ecology - pointer publishers , Jaipur - 1993

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Nature, scope, significance and approaches	18	Chalk and talk and PPT
UNIT 11			
	Agricultural types	8	Chalk and talk and PPT
	determinants	8	Chalk and talk and PPT
	Green revolution	6	Chalk and talk and PPT
UNIT III			
	Von thunen's Theory	5	Chalk and talk and PPT
	Land use and land capability and classification	5	Chalk and talk and PPT
UNIT IV			
	Agricultural productivity determinants	5	Chalk and talk and PPT
	Agricultural statistics	5	Chalk and talk and PPT
	Measurements of agricultural productivity	5	Chalk and talk and PPT
UNIT V			
	Cropping pattern, crop combination	7	Chalk and talk and PPT
	Ranking, concentration and diversification	7	Chalk and talk and PPT
	Agricultural regions of india and tamilnadu	7	Chalk and talk and PPT

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	4	4	4	4	4	4	4	4	4	4	4

CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.4

Result: The Score for this Course is 4.4   (very high)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value   Mean Overall Score of COs = Total of Mean Score
                    Total No. of Pos & PSOs   Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: CORE**
Semester   : II   **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : GB3   **Credits : 4**
        TITLE OF THE PAPER: URBAN GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: Main role is to emphasize the location & space and study the spatial processes. It create patterns observed in urban areas as well as their location and importance in relation to different regions and cities.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand the nature & scope: urban geography is the study of urban places with reference to their geographical environment.	1	15
UNIT 2 CO2: Analyse the urban & Devmographic structure: it emcompasses the size, structure and distribution with spatial changes.	2	15
UNIT 3 CO3 Analyse the urban morphology and the form of human settlements and their process and rebuild the formation and transformation.	3	15
UNIT 4 CO4: know the city region concept: Made to formulate certain rules regarding the relationship between population size and size of the city.	4	15
UNIT 5 CO5: Analyse urban problems: To estimate the tremendous growth of population and consequences in housing, congestions, civic and infrastructure deteriorating.	5	15

SYLLABUS
UNIT I: Nature, Scope and development of Urban Geography- World Urbanization -   Urbanization in India.
UNIT II: Structure of the city – site and situation - Functional Classification of towns and cities. Demographic Structure of Cities : Population growth, Distribution and composition.
UNIT III: Urban Morphology– Land use models - C.B.D and its delimitation - Urban Expansion : Vertical and Horizontal - Urban Sprawl - Urban Fringe - Sub Urban Growth - Concept of Satellite towns.
UNIT IV: City Region Concept - Distance decay – Umland demarcation-Conurbation - Urban Hierarchy- Rank Size Rule and Central Place Theory.
 UNIT V : Urban Problems : Slums - Solid Wastes - Pollution – Transport. Urban Planning-Smart cities

BOOKS FOR REFERENCE
1. Alam, S.M. Hyderabad - Secunderabad Twin Cities - Asia Publishing House, Bombay - 1964.
2. Berry ,B.J.L. and Horton F.F - Geograophic Perspectives on Urban systems - Prentice Hall, Englewood, New Jersey - 1970.
3. Carter - The study of urban geography - Edward Arnold Publishers , London - 1972
4. Chorley, R.J.O., Haggett P – Models in Geography - Methuen, London - 1966.
5. Dickinson, R.E - City and Region ,Routledge ,London - 1964.
6. Dwyer ,D.J - The city as a centre of change in Asia - University of Hond kong Press, Hongkong - 1971.
7. Gibbs J.P - Urban Research Methods - D.Van Nostrand Co. Inc. Princeton, New Jersey - 1961.

8. Hall P - Urban and Regional Planning - Routledge, London - 1992.
9. Hauser, Phillp M. and Schnore Leo F - The study of urbanisation, Wiley, New York - 1965.
10. James. P.E. and Jones C.F - American Geography - Inventory and Prospect - Syracuse University Press, Syracuse - 1954.
11. Kundu, A - Urban Development and Urban Research in India - Khanna Publication - 1992.
12. Meyor, H.M. Kohn C.F - Reading in Urban Geography - University of Chicago Press,Chicaga - 1955.
13. Mandal R.B Urban Geography A Text book –Concept publishing Company, New Delhi-1987
14. Mumford, L - Cultural of Cities - McMillan & Co., London - 1958.
15. Nangia , Sudesh - Delhi Metropolitan Region : A Study in Settlement Geography - Rajesh Publication – 1976
16. Smailes A.E - The Geography of Towns, Hutchinnson, London, 1953.
17. Singh K and Steinberg F - Urban India in Crisis. New Age Interns, New Delhi - 1998.
18. Tewari, Vinod K. Jay A. Weinstein, VLS Prakasa Rao – Indian Cities: Ecological Perspectives - concept Publishing Co., New Delhi – 1986.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1 Nature & Scope			
	Development of Urban geography	5	Chalk & talk – student evaluation
	World urbanization	5	PPt lecture
	Urbanization in India	5	PPT & Reference _ Journals
UNIT 11 Urban & Demographic structure			
	Site & Situation	5	Chalk & talk – student evaluation
	Functional Classification	5	Reference – journals
	Population structure	5	Videos/ ICT
UNIT III urban Morphology			
	Land use models	5	PPT lecture
	Theory	5	Chalk & talk and reference
	Urban Expansion	5	Videos / e- content
UNIT IV City region concept:			
	Concepts	5	PPT lecture
	Rank size rule	5	Reference – journal
	Central place theory	5	PPT lecture
UNIT V Urban problems			
	Housing	5	Field work – questionnaire
	Transport	5	Field work & PPT lecture
	Planning	5	PPT/ e-content

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	5	5	5	3	4	4	3	5	3.0
CO2	4	5	5	4	3	4	5	5	4	4	3.1
CO3	3	4	5	5	4	4	5	4	5	4	3.1
CO4	5	4	4	3	5	5	3	4	5	5	3.1
CO5	3	4	5	4	5	5	4	5	5	5	3.2
mean Overall score											3.45

Result: The Score for this Course is 3.45   (High relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs = Total of Value
                    Total No. of Pos & PSOs

Mean Overall Score of COs = Total ofMeanScore
                            Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Core 8**
Semester   : II   **Hours   : 8 P/W   120Hrs P/S**
Sub. Code   : GL2   **Credits : 4**
 TITLE OF THE PAPER: PRACTICAL PAPER-II REPRESENTATION AND ANALYSIS OF
SOCIO ECONOMIC DATA-1

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	8	3	1	3	1

PREAMBLE:
Representation and analysis of socio economic data-1, is the part of socio economic data-1 , is the part
of physical geography.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: To analyse the agricultural data trapping patterns, concentration.	1	15
UNIT 2 CO2: to learn and practice to weaver's, dei's and Katiullah's methods of generation.	2	15
UNIT 3 CO3: To understand the calculations about the industrial diverstion and hierarchy of industrial centers.	3	15
UNIT 4 CO4: To apply the functional classification of towns, simple conservation techniques and nearest neighbour analysis.	4	15

SYLLABUS

UNIT I: Agricultural Data – Cropping Pattern- Crop Concentration - Crop Diversification - Ranking of
Crops .
UNIT II Crop Combination – Weavers's, Doi's and Rafiullah's Methods.
UNIT III Index of Industrial Diversification – Hierarchy of Industrial Centres.
UNIT IV Rank Size Rule- Functional Classification- Nelson's Method – Simple Correlation-Nearest
Neighbourhood Techniques.
BOOKS FOR REFERENCE:
1.   Alexander John.W – Economic Geography -Prentice Hall , New Delhi
2.   Monkhouse.F.J and Wilkinson.H.R – Maps and Diagrams - Metheun & co, Londoan.1972.
3.   Majid Hussain – Agricultural Geography – Rawat Publications, New Delhi-2002.
4.   Singh.R.L. – Elements of Practical Geography – Kalyani Publishers, New Delhi.
5.   Tafee E.J. and Gauthier H.L – Geography of Transportation – Prentice Hall, New Delhi – 1973.
6.   The field- Review of books and Journals - Writing of project reports.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Population Growth	8	Chalk and talk, ppt, VLC.
	Simple Graph – Semilog Graph	8	Chalk and talk, ppt, VLC.
	Lorence curve - Age and Sex Structure.	8	Chalk and talk, ppt, VLC.
UNIT 11			
	Triangular Graph -	8	Chalk and talk, ppt, VLC.
	Deviational Graph -	8	Chalk and talk, ppt, VLC.
	Population Potential map.	8	Chalk and talk, ppt, VLC.
UNIT III			
	Representation of Medical Statistics	8	Chalk and talk, ppt, VLC.
	Measurement of Vital Statistics- Disease	8	Chalk and talk, ppt, VLC.
	Mapping and Diagram.	8	Chalk and talk, ppt, VLC.
UNIT IV			
	Transport Network Analysis	8	Chalk and talk, ppt, VLC.
	Connectivity and Accessibility Measures	8	Chalk and talk, ppt, VLC.
	Distance matrix - Detour Index	8	Chalk and talk, ppt, VLC.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4
CO4	3	3	3	3	3	3	3	3	3	3	3
mean Overall score											4

Result: The Score for this Course is 4 (High RELATIONSHIP)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                                    Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                                              Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III:Elective II**
Semester   : II   **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : EGB   **Credits :5**
          TITLE OF THE PAPER: POLITICAL GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: It is a branch of social geography

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand the nature of political geography	1	15
UNIT 2 CO2: Acquire the concept and characteristics of nation and state	2	15
UNIT 3 CO3: Understand the frontiers and boundaries	3	15
UNIT 4 CO4: Know the political region of the world	4	15
UNIT 5 CO5: Explain the political geography of India emerging new state and border problems and inter dispute.	5	15

SYLLABUS
UNIT I: Nature, Scope, Subject matter and recent development in political geography.
UNIT 2: Nation - concept, elements of nation building - state - concept, characteristics, types of states -Based on structure, size, and shape.
UNIT 3: Frontiers and Boundaries- Concept, Classification of Frontiers and Boundaries- Concept and classification - Buffer zone.
UNIT 4: Political Regions of the world – Geo political Significance of Indian Ocean.
UNIT 5: Political Geography of India; Federalism ; Concept Geographical basis of Federalism- Nation -building ,State Reorganisation after Independence - Emergence of New states - India's Border Problems- Interstate Disputes
BOOKS FOR REFERENCE
 1.Krishna Bhusan Bisariya- Political Geography – Signature Book   International,
    Delhi- First Published -2011
 2.Rajiv Ahir – Geography - Spectrum Books Pvt. Ltd, NewDelhi-2006.
 3.Rajive Gupta – Political Geography- Sonali Publications, New Delhi. 4.Richard Muir Modern
    Political Geography – Macmillan Publishers Ltd, London -1981.
 5.Siddhartha.k – Nation – State, Territory and geopolitics – Kisalaya Publications Pvt Ltd, New Delhi
    – 1998.

6.Singh.I – Political Geography – Alfa Publications, New Delhi – 2006.
7.Sudeepta Adhikari.b – Political Geography-Rawat Publications, Bangalore- 2007.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	5	4	5	3	4	4	5	3	2.9
CO2	4	3	5	4	3	4	5	3	5	4	3.1
CO3	5	4	5	4	4	4	4	5	4	5	3.1
CO4	4	3	5	4	5	4	5	4	5	5	3.1
CO5	3	4	4	4	5	3	4	5	5	3	2.9
mean Overall score											3.0

Result: The Score for this Course is 3.45   (High Relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                                Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                                            Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   Part III: Elective II
Semester   : II   Hours   : 5P/W   75Hrs P/S
Sub. Code   : EGB   Credits :5

TITLE OF THE PAPER: SOCIAL GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT	
	6/7/8	2	1	1	2	

PREAMBLE: It is abranch of population geography

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: know the nature and development of social geography – realm of social sciences.	1	15
UNIT 2 CO2: Understand the space and society- structure and process – to social theory; power relations and space	2	15
UNIT 3 CO3: Understand the social geography of India	3	15
UNIT 4 CO4: explain the social well- beings and human development	4	15
UNIT 5 CO5: understand the public policy and social planning in india	5	15

SYLLABUS
UNIT I: Nature and development of social geography – Social geography in the realm of social sciences.
UNIT 2: Space and society: Understanding society and its structure and process; geographical bases of social formations; contribution of social geography to social theory; power relations and space.
UNIT 3: Social Geography of India; Evolution of Socio-Cultural regions of India; Role of race, caste, ethnicity; religion and languages; Indian unity and diversity; Social transformation and change in India
UNIT 4: Social well-being: Concepts of social well-being, Physical quality of life, Human development; Measurement of human development with social, economic and environment indicators; Rural urban deprivation in India with respect to health care.
UNIT 5: Public policy and social planning in India: Five year Plans and Strategies.

BOOKS FOR REFERENCE:
1. Ahmad, Aijazuddin, Social Geography, Rawat Publication, New Delhi, 1999.
2. De Blij. H.D. Human Geography. John Wiley and son, New York.
3. Dreze Jean, Amartya Sen, Economic Development and Social opportunity, Oxford University Press, New Delhi, 1996.
4. Gregory, D and J.Larry, (eds)Social relations and spatial structures, McMillan, 1985.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	5	4	5	3	4	4	5	3	2.9
CO2	4	3	5	4	3	4	5	3	5	4	3.1
CO3	5	4	5	4	4	4	4	5	5	4	3.1
CO4	4	3	5	4	5	4	5	4	5	5	3.1
CO5	3	4	4	4	5	3	4	5	5	3	2.9
mean Overall score											3.0

Result: The Score for this Course is 3.45   (High Relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                       Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                             Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   Part III: Core 9
Semester   : III   Hours   : 5 P/W   75Hrs P/S
Sub. Code   : GC1   Credits :4
TITLE OF THE PAPER: ADVANCED CARTOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	6/7/8	2	1	1	2

PREAMBLE: To study and application of advanced characteristics of Thematic Cartography. To design and production of innovative maps

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Nature & scope: Thematic cartography is the study of map making with ancient to modern period	1	
UNIT 2 CO2: Symbolization: Examine the coding of map features to communicate meaning	2	
UNIT 3 CO3: compilation & Generalization of maps: To understand the imperceptibility of consistency>	3	
UNIT 4 CO4: Survey instruments: to identify the distance/ height with faster and precise methods.	4	
UNIT 5 CO5: Mapping Techniques: To recognize the mapping functions and organization through computer techniques.	5	

SYLLABUS

UNIT I: Nature and Scope of Cartography - Trends in the development of Cartographic techniques.
UNIT 2: Symbolization - Qualitative and Quantitative - Point, Line, Area and Volume symbols - Thematic maps- Representation of Physical and   Socio Economic Data - Uses of diagrams and maps.
UNIT 3: Compilation and Generalization of maps - Design and layout - Lettering – Reproduction -Duplication processes and Printing processes.
UNIT 4: Survey Instruments – Total Station – GPS – Differential Global Positioning System – Instruments used in Image Interpretation: Magnifiers, Additive colour viewer, Sketch Master, Zoom Transfer Scope – Image analyzer and Plan Master.
UNIT 5: Mapping techniques: Advanced techniques – GIS Software – AUTOCAD, GRASS, IDRISI, ILWIS, ERDAS, Arc GIS, Arc view , Arc Map and Arc info – Spatial referencing – Geo referencing – Map Projection- UTM (Universal Transverse Mercator) Co-ordination (43-44 regions)

BOOKS FOR REFERENCE

1. Agarwal C.S and P.K Garg – Text BooK of Remote Sensing – Wheeler Publishers , New Delhi – 2000.
2. Anand P.H. and Rajesh Kumar. V, Principals of Remote sensing and GIS – Sri Venkateswara publishers – 2003.
3. C.P.Lo. Albert and K.W.Yeung – Concepts and Techniques of Geographic Information systems – PH1 Learning. Privated Ltd, New Delhi – 2009.
4. Peter. A. Burrough and Rachael A. Mcdonnell- Principls of Geographical Information Systems- Oxford University Press , oxford -2010.
5. Curran P – Fundamentals of Remote Sensisng –Longman ,Londan – 1990.
6. Misra. R.P & Ramesh.A - Fundamentals of Cartography -Concept Publishing Company, 2002.
7. Monkhouse, F.J. & Wilkinson, HR - Maps and Diagrams -Methuen, London - 1994.
8. Prithvish Nag, Thematic Cartography and Romote Sensing Concept Publishing Company ,New Delhi-2002.
9. Rampal K.K., Mapping and Compilation – Concept Publishing Company, New Delhi -2009.
10. Robinson H. Arthur, Joel.L.Morrison, Phillip C, Muekrcke, A.Jonkimberling and Stephen C. Guptill- Elements of Cartography, Sixth Edition- Willy Indian (P Ltd), New Delhi-2009.
11. Singh R.L-Elements of Practical Geography -Kalyani Publication. New Delhi- 1979
12. Thomos M.Lillesand , Ralph W.Kiejer and Jonathan W. Chipman, Remote Sensing and Image Interpretation – Fifth Edition – John Wiley and sons-2009.
13. http://www. Cecer.army.mil:8o/welcome.html-CERL/
14. ftp://midget.towson.edu/idrisi-IDRISI-L FTP
15. http://www.itc.nl/homepage.html-ITC-International Institute for Aerospace survey and earth sciences, NL.(Ilwis)

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1 Nature & scope			
	Content	5	Chalk & talk – student evaluation
	Trends & development	5	PPT lecture
	Cartographic technique	5	PPT & reference – journals
UNIT 11 symbolization			
	Symbols	5	Maps & charts – student evaluation
	Thematic maps	5	Reference – journals
	Use of diagrams/ maps	5	Video/ICT
UNIT III compilation & Generalization			
	Design& layout	5	PPT lecture
	Reproduction of maps	5	Chalk & talk and reference
	Duplication & printing	5	Videos/e-content
UNIT IV survey instruments			
	Total station & GPS	5	PPT lecture / GPS survey
	Image interpretation	5	Comparative study – ICT
	Image analyzer	5	PPT lecture & evaluation
UNIT V Mapping Techniques			
	GIS software	5	Computerized assessments
	Referencing	5	Chalk & talk / practical
	projection	5	PPT / e- content

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	5	4	5	3	4	4	5	3	2.9
CO2	4	3	5	4	3	4	5	3	5	4	3.1
CO3	5	4	5	4	4	4	5	4	5	4	3.1
CO4	4	3	5	4	5	4	5	4	5	5	3.1
CO5	3	4	4	4	5	3	4	5	5	3	2.9
mean Overall score											3.45

Result: The Score for this Course is 3.45   (High Relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                       Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                            Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   Part III: CORE
Semester   : III   Hours   : 5 P/W   75Hrs P/S
Sub. Code   : GC2   Credits : 4
        TITLE OF THE PAPER: REMOTE SENSING AND GEOGRAPHICAL
INFORMATION SYSTEM

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: science of obtaining information with out physical interaction and GIS is a toll for making maps.

COURSE OUTCOME		Unit	Hrs P/S
At the end of the Semester, the Students will be able to			
UNIT 1 CO1: definition & EMR: foundation of remote sensing is based on the measurement and interpretation with EMR.		1	15
UNIT 2 CO2: Aerial remote sensing: taking photographs from am mounted cameras. It is the reliable source obtain an data from any spatial units.		2	15
UNIT 3 CO3: satellite remote sensing: it is an technique that estimates geophysical parameters from the electromagnetic energy.		3	15
UNIT 4 CO4: image processing: with the use of computer algrorithms to perform imag processing on digital images.		4	15
UNIT 5 CO5: GIS definition & Application: system designed to capture, store, manipulate, analyse the geographical data. Operations related to engineering, planning, management etc.		5	15

SYLLABUS

UNIT I: Remote Sensing – Definition – Development of Remote Sensing – Basic Principles of EMR –

Energy Interaction with earth and atmosphere – Ideal Remote Sensing System – Platforms.

UNIT II : Aerial Remote Sensing – Elements – Types and Classification of Photos – Scale - Anatomy

of Photos – Elements of Photo Interpretation – Techniques of Photo Interpretation.

UNIT III Satellite Remote Sensing – Satellite Orbit, Sensors and Resolution, Imageries – Types of

Satellites : LANDSAT, INSAT, IRS, SPOT , IKONOS, QUICK BIRD and CARTOSAT.

UNIT IV Image Processing: Image Rectification and Restoration – Image Enhancement – Image
Classification – Supervised – Unsupervised

UNIT V GIS – Definition – Components – Spatial data - Attribute data – Digitalization – Data Base

Management System – Raster and Vector Model – Data Analysis – Overlay – Query – DEM, DTM –

Buffering – User Application -   GIS Packages – Remote Sensing in GIS – GIS in Resources Mapping –

Uses of GIS.

BOOKS FOR REFERENCE

1. Agarwal C.S and P.K. Garg – Text Book of Remote Sensing – Wheeler Publishers New Delhi – 2000.

2. Anand P.H. and Rajesh Kumar. V, Principals of Remote sensing and GIS – Sri Venkateswara publishers – 2003.
3. Bhatta. B – Remote Sensing and GIS – Oxford University Press, New Delhi – 2008.
4. Burrough P.A. – Principles of GIS for Land Resources Assessment, Clarendon Press. Oxford – 1996.
5. Campbell, James .B - Introduction of Remote Sensing – the Guild press Newyork - 1996
6. Curran .P – Fundamentals of Remote Sensing – Longman London – 1990.
7. Chouhan T.S & Josi K.N. Applied Remote sensing and Photo Interpretation – Vigyan Prakashan Jodhpur - 1996
8. Kudral.M. K. Dr. Nag. P Dr. – Digital Remote Sensing – Concept of Publishing Company, New Delhi -1998.
9. Lillesand . T.M. and Kiefer R.W– Remote Sensing and Image Interpretation, Fourth Edition, John Wiely & Sons, INC New york - 2000
10. Misra . R.P. Ramesh .A - Fundamentals of Cartography – Concept Publishing Company, New Delhi –2002.
11. Narayan . L.R.A– Remote sensing and its Applications – University Press – 1999
12. Patel .A.N. and Surendra Singh - Remote Sensing Principles and Application – Scientific Publishers , Jodhpur - 1999
13. Pradeep Kumar – Dictionary of Geographical Information systems – Bio Tec Books, 1123/74, Trinagar Delhi - 2007
14. Prithvish Nag, Thematic Cartography and Romote Sensing Concept Publishing Company ,New Delhi-2002.
15. Rampal, K.K.– Hand book of Aerial Photography and Interpretation Concept Publishing Company, New Delhi – 1999
16. Kang – Tsung Chang – Introduction to Geographic Information Systems – Published by Mc Graw – Hill, A Business Unit of the Mc Graw – Hill Companies, Newyork – 2002.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1 Definition & EMR			
	Definition& development	5	Chalk & talk – student evaluation
	EMR & interaction	5	PPT lecture
	platforms	5	PPT & reference – journals
UNIT 11 aerial remote sensing			
	Elements & types	5	Chalk & talk – student evaluation
	Anatomy of photos	5	Reference – journals
	Techniques of interpretation	5	Practical works
UNIT III satellite remote sensing			
	Orbit & sensor	5	PPT lecture
	Resolution & imageries	5	PPT and reference
	Types of satellites	5	Videios / e- content
UNIT IV image processing			
	Rectification & restoration	5	PPT lecture
	Image enhancement	5	Reference- journal

	Supervised& unsupervised	5		PPT lecture
UNIT V GIS & applications				
	Definition& components	5		Chalk & talk
	DBMS & Analysis	5		PPT lecture & practical
	application	5		PPT / e-content

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	5	4	5	4	4	4	3	4	3.0
CO2	5	4	3	5	4	4	3	5	4	4	3.0
CO3	4	4	5	5	4	4	5	4	5	4	3.1
CO4	5	4	5	4	5	4	5	4	5	4	3.1
CO5	4	4	5	4	4	5	4	4	4	5	3.1
mean Overall score											3.45

Result: The Score for this Course is 345   (High relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                          Total No. of Pos & PSOs

Mean Overall Score of COs = Totalof MeanScore
                             Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography

Programme : M.Sc GEOGRAPHY　　　　　　　　　**Part III: Core 11**
Semester　: III　　　　　　　　　　　　　　　　**Hours　: 5 P/W　75Hrs P/S**
Sub. Code　: GC3　　　　　　　　　　　　　　　**Credits :4**
　　TITLE OF THE PAPER:　GEOGRAPHICAL　THOUGHT

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	6/7/8	2	1	1	2

PREAMBLE:　Modern thought related with geographical discipline and explain the discoveries explorations different school of thoughts and inter disciplinary approach

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: acquire knowledge about different school of thought	1	15
UNIT 2 CO2: Understand the traditions in geography	2	15
UNIT 3 CO3: analyse explanation description and regional concepts in geography	3	15
UNIT 4 CO4: know the inter disciplinary trends in geography	4	15
UNIT 5 CO5: explain the recent trends in geographical studies	5	15

SYLLABUS

UNIT I: Major Geographical thought - Different schools of thought - Early period - Romans - Greeks - Indian - Chinese - Arabs. Medieval Period - Exploration and discoveries - Modern Period - German - French - British - U.S. - Russian - Marxian view.

UNIT 2. Traditions in Geography - Man Land Tradition, Area Studies, Spatial and Earth Science tradition - Dualism and Dichotomy in Geography. Systematic and Regional - Deterministic and Possibilistic ,Physical and Human – Idiographic or Nomethetic - Qualitative and Quantitive.

UNIT 3 Explanation and Description - Laws and Theories in Geography – Regional Concept in Geography - Types of regions - Formal and Functional –Macro and Micro - Physical region - Spatial diffusion and movements –Behaviour perception.

UNIT 4. Interdisciplinary Trends in Geography and Geology - Geography and Physical Science - Geography and Social science - Geography and Political Science.

UNIT 5. Recent Trends in Geographical Studies - Quantitative revolution - Application of Remote Sensing – GIS & GPS - Future of Geography –

Development of Geography in India.

BOOKS FOR REFERENCE

1. David Harvey - Explanation in Geography, Arnold Publishers, New Delhi - 1989.
2. Singh.I. - Diverse Aspect of Geographical Thought - Alfa Publications , New Delhi - 2006.
3. Lalita Rana - Geography of Health - Concept Publishing Company ,New Delhi - 2008.
4. Majid Husain - Evolution of Geography Thought - Rawat Publications , Jaipur & New Delhi - 2008.
5. Minshull, R. - The Changing Nature of Geography- Hutchinson University Library, London - 1970.
6. Dikshit R.D. - Geographical Thought - Prentive Hall of India Printed Limited ,New Delhi -1997.
7. Freeman T.W. - A Hunderd years of Geography - Printed in Great Britain, London - 1961.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	5	4	5	4	4	4	3	4	3.0
CO2	5	4	3	5	4	4	3	5	4	4	3.0
CO3	4	4	5	5	4	5	5	4	5	4	3.1
CO4	5	4	5	4	5	4	5	4	4	5	3.1
CO5	4	4	5	4	4	5	4	4	4	5	3.1
mean Overall score											3.45

Result: The Score for this Course is 3.45 (High Relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                   Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                         Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Core 12**
Semester   : III   **Hours   : 8 P/W   120Hrs P/S**
Sub. Code   : GL3   **Credits : 4**
TITLE OF THE PAPER: PRACTICAL III MAP MAKING, INTERPRETATION OF
TOPOGRAPHICAL MAP, AERIAL PHOTO,SATELLITE IMAGERY AND APPLICATIONS OF
GEOGRAPHICAL INFORMATIONS SYSTEM

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	8	3	1	3	1

PREAMBLE: Preparation of the thematic maps, interpretation of survey of india toposheet, aerial photographs and satellite imageries.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: To understand the thematic maps, representation of Qualitative and Quantitative data	1	15
UNIT 2 CO2: To analysis the detailed interpretation of survey of India toposheet	2	15
UNIT 3 CO3: To know the elements of interpretation.	3	15
UNIT 4 CO4: To understand the areial photos and satellite imageries.	4	15

SYLLABUS

UNIT I: Preparation of Thematic Maps – Representation of Qualitative and Quantitative Data - Point, Line ,Area and Volume Symbols.
UNIT II Detailed Interpretation of Survey of India Toposheet.
UNIT III Elements of Interpretation : Aerial Photographs and Satellite Imageries.
UNIT IV :Vector data Representation :topologicakl data structure (point,line and area)-Digitization-Digitizing Errors;over shoot,under shoot,unclosed polygon,Pseudo nodes, dangle,fuzzy,spilt,merge,reshape,line smoothing.
BOOKS FOR REFERENCE
1. Curran.p– Fundamentals of Remote Sensing – Longman London - 1990
2. Chouhan T.S & Josi K.N. Applied Remote Sensing and Photo Interpretation – Vigyan Prakashan Jodhpur - 1996.
3. Misra .R.P. Ramesh .A - Fundamentals of Cartography- Concept Publishing Company, New Delhi – 2002.
4. Pijushkanti Saha Dr. Partha Basu Dr – Advanced Practical Geography – Arunabha Sen, Books & Allied (P) Ltd., Kolkata - 2004.
5. Rampal K.K – Mapping and Compilation methods and Techniques – Concept Publishing Company, New Delhi - 1993

6. Singh R.L.– Elements of Practical Geography – Kalyani Publishers New Delhi – 1979 Tamil Nadu Resources Atlas.

7. Zulgequar Ahamed Khan Md – Text Book of Practical Geography – Concept Publishing Company , New Delhi –1998

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	4	5	5	4	5	4	5	4.7
CO4	5	4	5	4	5	5	5	5	5	5	4.8
mean Overall score											4.375

Result: The Score for this Course is 4.6   (Very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III:Elective III**
Semester   : III   **Hours   : 5 P/W   75 Hrs P/S**
Sub. Code   : EGC   **Credits : 5**
          TITLE OF THE PAPER: RESEARCH METHOLOGY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	3	1	1	2

PREAMBLE: understand meaning and various types of research, to acquaint with the research methods to be familiar with techniques for collection of research data: library research- Bibliography

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: To learn and practice some scientific research and inter disciplinary trends in geography.	1	15
UNIT 2 CO2: To analyze the processing of data transportation about the tables, chart, diagrams, and maps.	2	15
UNIT 3 CO3: Acquire the knowledge about different types of techniques are correlated representation and linear programming.	3	15
UNIT 4 CO4: To apply the research design selection of the plane, formulation testing of hypothesis.	4	15
UNIT 5 CO5: To learn and understand library research ,review about books, and journals, writing of project report tools.	5	15

SYLLABUS

UNIT I: Research - Meaning - Need for Scientific research - Approaches to research - Interdisciplinary trends in Geography.
UNIT II Collection of data - Sources of data - Primary and Secondary data - Structuring the data - Data transformation - Tables, Charts, Diagrams and Maps.
UNIT III Sampling techniques - Types - Construction of Schedule / Questionnaire - Simple Quantitative techniques - Co-efficient of Correlation, Regression, and Linear programming.
UNIT IV Research Design -Identification, Selection and definition of the problem- Selection of the topic, formulation of hypothesis and Testing of hypothesis.

UNIT V Library Research - Bibliography - Glossary - Appendix – Language- Review of workdone in the field –Review of books and journals –Writing of Project Reports.

BOOKS FOR REFERENCE
1. Devendra Thakur - Research Methodology in Social Sciences, Deep and Deep Publications, New Delhi - 1993.
2. Gopal Lal Jain –Research Methodology – Methods, Tools and Techniques –Mangal Deep Publications, Jaipur 2003.
3. Harprasad - Research Methods and Techniques in Geography - Rawat Publications, Jaipur - 1992.
4. Krishnaswami.O.R. & Ranganathan. M.R - Methodology of Research in Social Sciences - Himalaya publishing House, New Delhi - 2005.
5. Kothari .C.R - Research Methodology Methods and techniques, Wiley Eastern Ltd,   New Delhi - 1990.
6. Najma Khan - Quantitative Methods in Geographical Research -Concept Publishing Company, New Delhi - 2003.
7. Ramesh Babu – Research Methodology in Social Sciences-Concept Publishing   Company ,New Delhi -2008

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	5	4	5	4	4	4	4	4	3.0
CO2	5	4	3	5	4	4	3	5	4	4	3.0
CO3	4	4	5	5	4	4	5	4	5	4	3.1
CO4	5	4	5	4	5	4	5	4	4	5	3.1
CO5	4	4	5	4	4	5	4	4	4	5	3.1
mean Overall score											3.1

Result: The Score for this Course is 4.6 (Very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                  Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                       Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III:Elective III**
Semester   : III   **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : EGC   **Credits :5**
       TITLE OF THE PAPER: INDUSTRIAL GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: To understand the global nature of industrialization, environmental degradation, world distribution and study of some industries.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: To study about what industrial geography, its nature, scope, and different study methods.	1	15
UNIT 2 CO2: To study the locations of industry and their activities primary and secondary factors responsible for the same.	2	15
UNIT 3 CO3: To review on world distribution of some industries and selected countries.	3	15
UNIT 4 CO4: To understand the global nature of industrialization and related problems.	4	15
UNIT 5 CO5: Understand the environmental degradation, industrial hazards and occupation health.	5	15

SYLLABUS

UNIT I Nature, Scope and Significance of Industrial Geography.
UNIT II Industrial base - Major input characters Economic Structure of industries – Labour.
UNIT III Major Industrial Locations - Industrial Location theories, Webber, Hoover and August Losch.
UNIT IV Classification of industries - Resource based - Agriculture, Mineral, Multi based Industries and Small scale - Large scale industries.
UNIT V Major Industrial Regions of India and Tamilnadu.
 BOOKS FOR REFERENCE
     1. Gopal Singh - A Geography of India - Atma Ram & Sons, New Delhi -2006

2. Keitn Chapman and David F.Walker - Industrial Location – Wiley Eastern Ltd - 1991.

3. Memoria.C.B. - Economic and Commercial Geography of India - S.Chand and Co, New Delhi - 1977.
4. Perumalsamy.S - Economic Development of Tamil Nadu S.Chand and Co, New Delhi - 1996
5. Pritimathur, Sarma Kalia - Fundamentals of Industrial geography, Ritu publications Jaipur 2005.
6. Sakthi Venkatakumaraswamy - Geography of Tamil Nadu SakthiAbirami Publication ,Kumbakonam - 2003.(Tamil)
7. Sathy Narayana - Industrial Development in Backward Regions Resource and Planning - Chugh Publication, Allahabad - 1989.
8. Sharma.and Couthinho O. - Economic and Commercial Geography Of India - Vikas Publications.Patna - 2001.
9. Sinha.N.K.P, Singh.M.B - Perspective on Industrial Development in India - Rawat publication Jaipur and New Delhi - 1993.Singh.R.L. - Regional Geography Of India – NGSI Varanasi.1971.
10. Vipin mathur - Industrai location and Regional development in backward areas - Cyber Tech Publications - 2009.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	5	4	5	3	4	4	4	3	2.9
CO2	4	3	5	4	3	4	5	3	5	4	3.1
CO3	5	4	5	4	4	4	5	5	4	5	3.1
CO4	4	3	5	4	5	4	5	4	5	5	3.1
CO5	3	4	4	4	5	3	4	5	5	3	2.9
mean Overall score											3.0

Result: The Score for this Course is 4.2 (Very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                    Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                          Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.S.c GEOGRAPHY   **Part III: Non Major Elective**
Semester   : III   **Hours   : 2 P/W   30Hrs P/S**
Sub. Code   : NMPG   **Credits : 2**
   TITLE OF THE PAPER:FUNDAMENTALS OF REMOTE SENSING AND GIS

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT	
	2	1		0.5		0.5

PREAMBLE:understand the concepts and fundamentals of Remote sensing and GIS data structures.

COURSE OUTCOME At the end of the Semester, the Students will be able to		Unit	Hrs P/S
UNIT 1 CO1: They can know the basic concepts, components, development, platforms, and types of remote sensing and GIS		1	15
UNIT 2 CO2: They understand about aerial photography and satellite remote sensing.		2	15
UNIT 3 CO3: Know about GIS data structures.		3	15
UNIT 4 CO4: Develop an idea about interpretation and application of remote sensing and GIS.		4	15
UNIT 5 CO5: To know about the spacial data concepts, attribute data, manipulation and presentation.		5	15

SYLLABUS
SEMESTER III NON- MAJOR ELECTIVE
CODE: NMPG – FUNDAMENTALS OF REMOTE SENSING AND GIS
UNIT I: Definition – Types of Remote Sensing-– Development of Remote Sensing
UNIT II: Principles of Remote Sensing – EMR – Energy Interaction with Atmosphere and Surface.
UNIT III: Aerial Remote Sensing – Types of Aerial photographs - Method of Interpretation .
UNIT IV: Satellite Remote Sensing -Types of Satellites- Method of Interpretation
UNIT V: GIS – Definition- Components- Spatial Data- Attribute Data- Data Base Management -Manipulation and Presentation
BOOKS FOR REFERENCE

1. Agarwal C.S and P.K. Garg – Text Book of Remote Sensing – Wheeler Publishers New Delhi – 2000.
2. Anand P.H. and Rajesh Kumar. V, Principals of Remote sensing and GIS – Sri Venkateswara publishers – 2003.
3. Bhatta. B – Remote Sensing and GIS – Oxford University Press, New Delhi – 2008.
4. Burrough P.A. – Principles of GIS for Land Resources Assessment, Clarendon Press. Oxford – 1996.
5. Campbell, James .B - Introduction of Remote Sensing – the Guild press Newyork - 1996
6. Curran .P – Fundamentals of Remote Sensing – Longman London – 1990.
7. Chouhan T.S & Josi K.N. Applied Remote sensing and Photo Interpretation – Vigyan Prakashan Jodhpur - 1996
8. Kudral.M. K. Dr. Nag. P Dr. – Digital Remote Sensing – Concept of Publishing Company, New Delhi -1998
9. Lillesand . T.M. and Kiefer R.W– Remote Sensing and Image Interpretation, Fourth Edition, John Wiely & Sons, INC New york - 2000
10. Misra . R.P. Ramesh .A - Fundamentals of Cartography – Concept Publishing Company, New Delhi –2002.
11. Narayan . L.R.A– Remote sensing and its Applications – University Press – 1999

12. Patel .A.N. and Surendra Singh - Remote Sensing Principles and Application – Scientific Publishers , Jodhpur - 1999
13. Pradeep Kumar – Dictionary of Geographical Information systems – Bio Tec Books, 1123/74, Trinagar Delhi - 2007
14. Prithvish Nag, Thematic Cartography and Romote Sensing Concept Publishing Company ,New Delhi-2002.
15. Rampal, K.K.– Hand book of Aerial Photography and Interpretation Concept Publishing Company, New Delhi – 1999
16. Kang – Tsung Chang – Introduction to Geographic Information Systems – Published by Mc Graw – Hill, A Business Unit of the Mc Graw – Hill Companies, Newyork – 2002.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Remote sensing definition- basic principles	5	Chalk & talk
	Scope	5	Videio lecture and student seminar
	Historical development	5	PPT lecture
UNIT 11			
	Elements of remote sensing system- energy source	5	Chalk & talk
	EMR- spectrum	5	
	Interaction energy	5	PPT lecture and video lecture and student seminar
UNIT III			
	Aerial photography development and types	5	Chalk & talk and student PPT
	Characteristics and elements	5	PPT lecture
	Air photo Interpretation	5	e-content and practical assessment
UNIT IV			
	Platforms- sensor system	5	PPT lecture
	LAND SAT system – SPOT system	5	PPT lecture and student seminar
	IRS series	5	PPT and video lecture test
UNIT V			
	GIS components	5	Chalk and talk and chart- test
	Raster and vector data	5	PPT and computer software
	DBMS – Statistical analysis	5	Computer software - practical

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	

CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.4

Result: The Score for this Course is 4.4(Very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                    Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                            Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Core 13**
Semester   : III   **Hours : 5 P/W   75Hrs P/S**
Sub. Code   : GD1   **Credits : 4**
        TITLE OF THE PAPER: POPULATION GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: To understand the population,growth, density, migration policies in devloping countries.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand the nature of population ,composition of population,like-age, sex maitial status, family, economic composition and language.	1	15
UNIT 2 CO2: Evaluate the population growth theory and migration policies.	2	15
UNIT 3 CO3: Analyze the global trend and patterns of population growth in developing countries.	3	15
UNIT 4 CO4: Understand the population resonance region.	4	15
UNIT 5 CO5: Understand the population policies and planning in different countries of World and India	5	15

SYLLABUS

UNIT I Nature, Scope and Significance of Population Geography -Historical Development of Population Geography –Sources of population Data - Census – Vital Registration - Other Sources - Reliability of Population Data - Problems of Mapping Population Data.
UNIT II Factors affecting Distribution, Density and Population Growth - Fertility , Mortality Measurements and Determinants ; Theories of Population Growth - Malthusian, Ricardo and Marx – Demographic cycle .
UNIT III Migration - Types, Determinants and consequences. World Migration Pattern.
UNIT IV Population and Resources - Optimum, Under and Over Population. Resource Regions; U.S.Type, European Type, Brazilian Type, Egyptian Type and Arctic Type.
UNIT V Population Policies and Planning of World and India
BOOKS FOR REFERENCE
1. Alka Gautam -Advanced Economic Geography – Shardar Pustak Bhavan- Allahabad-2010.
2. Asha.A.Bhende & Tara Kanitkar - Principles of Population Studies - Himalaya Publishing House - 1994

3. Ashish Bose - India and the Asian Population Perspective - B.R. Publishing Corporation New Delhi - 1993.
4. Census of India - Series.
5. Chandna R.C- Geography of population Concepts,Determenents & Patterns- Kalyani Publishers,New Delhi- 2010.
6. Ghosh.B.N. - Fundamentals of Population Geography - Sterling Publishers - 1987.
7. Clarke John.I - Geography and Population: Approach Applications, Pergaman Press Ltd,Oxford – 1984
8. Rajendra.K. Sharma - Demography and Population Problems - Atlantic Publishers ,New Delhi - 1997.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Nature, Scope and Significance of Population Geography	5	Maps,ppt and VLC.
	Historical Development of Population Geography –Sources of population Data -	5	Maps,ppt and VLC.
	Reliability of Population Data - Problems of Mapping Population Data	5	Map.s,ppt and VLC.
UNIT 11			
	Factors affecting Distribution, Density and Population Growth	5	Maps,ppt and VLC.
	Fertility , Mortality Measurements and Determinants	5	Maps,ppt and VLC.
	Theories of Population Growth - Malthusian, Ricardo and Marx – Demographic cycle .	5	Maps,ppt and VLC.
UNIT III			
	Migration	5	Maps,ppt and VLC.
	Types, Determinants and consequences.	5	Maps,ppt and VLC.
	World Migration Pattern	5	Maps,ppt and VLC.
UNIT IV			

	Population and Resource Regions;	5		Maps,ppt and VLC.
	Optimum, Under and Over Population.	5		Maps,ppt and VLC.
	U.S.Type, European Type, Brazilian Type, Egyptian Type and Arctic Type.	5		Maps,ppt and VLC.
UNIT V				
	Population Policies	5		Maps,ppt and VLC.
	Planning in India.	5		Maps,ppt and VLC.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.4

Result: The Score for this Course is 4.2 (Very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value   Mean Overall Score of COs = Total of Mean Score
                  Total No. of Pos & PSOs   Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: core/allied/elective**

 Semester   :IV   **Hours   : 5 P/W   75Hrs P/S**

Sub. Code   : GD2   **Credits : 5**
TITLE OF THE PAPER: MEDICAL GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	6/7/8	2	1	1	2

PREAMBLE: Studies the effects of locale and climate upon health. It aims to improve the understanding of the various factors which affect the health of populations and hence individuals. It is also called health geographic. The idea that place and location may influence health is not exactly new.

COURSE OUTCOME	Unit	Hrs P/S
At the end of the Semester, the Students will be able to		
UNIT 1 CO1: to provide a critical understanding of key concepts related to medical geography.	1	15
UNIT 2 CO2: to examine the role of societal structures and human behavior in creating and sustain health inequalities and differeneces in access to health care.	2	15
UNIT 3 CO3: to provide a set of analytical skills to evaluate the demographic, social, economic and political relationships that explain health inequalitites and differeneces in access to health care.	3	15
UNIT 4 CO4: the student will develop a working knowledge of several numerical methods and their analytical basis	4	15
UNIT 5 CO5: to understand how national health care systems either reduce or enhance health inequalitites and differences in access to health care.	5	15

SYLLABUS
UNIT I: Essentials of Medical Geography-Concepts and Theories-Trends and Growth of Medical Geography. Geography of Health- Definition-Classification- Environmental Health, Mental Health, Occupational Health and Nutrition.

UNIT II   Social Dimension -Leprosy, STD, AIDS, Rabies - Life Style variation and related diseases - Obesity, Accident, CHD, Hypertension, Cancer, Diabetes, Stroke-Smoking, Drinking and Chewing.

UNIT III Geography of Disease- Definition- Classification-Infectious, Communicable: Malaria, Measles and Tuberculosis. Chronic Disease – Ecology -Disease Diffusion- Transmission- Prevention and Control of Diseases- Epidemic in India.

UNIT IV Medical Statistics - Epidemiology- Measurement of Mortality, Morbidity-Epidemiological Methods- Medical Cartography -Meaning and Method of Disease Mapping at Macro, Meso and Micro levels - Statistical Representation of Diseases.

UNIT V Population Planning -   Family planning- Control Measures- Health Education and Communication - Health Planning and Management - Health care of Community- Functional Organisation -Health Care Delivery System in Rural and Urban Areas- Disease Control Programme.

BOOKS FOR REFERENCE
1.   Ahamed Hussain- Geography and Health –Mahaveer& Sons , New Delhi-2007

2.   Cliff.A and Haggett,P Atlas of Disease Distribution ,Basil   Blackwell,Oxford 1989.

3.   May,J.M The World Atlas of Disease. Nat Book Trust New Delhi – 1970

4.   Mishra.R.P Geography of Health- Concept Publishing Company New Delhi-2007

5. Park.K,Preventive and Social Medicine, Banarsidas Bhanot Publishers Jabalpur,India 2000.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	5	5	5	3	4	4	3	5	4.1
CO2	4	5	5	4	3	4	5	5	4	4	4.3
CO3	3	4	5	5	4	4	5	4	5	4	4.3
CO4	5	4	4	3	5	5	3	4	5	5	4.3
CO5	3	4	5	4	5	5	4	5	5	5	4.5
mean Overall score											4.3

Result: The Score for this Course is 4.3 (High relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs = $\dfrac{\text{Total of Value}}{\text{Total No. of Pos \& PSOs}}$ Mean Overall Score of COs = $\dfrac{\text{Total of MeanScore}}{\text{Total No. of COs}}$

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Core 15**
Semester   : IV   **Hours   : 8 P/W   120Hrs P/S**
Sub. Code   : GL4   **Credits : 4**
TITLE OF THE PAPER: REPRESENTATION AND ANALYSIS OF SOCIO ECONOMIC DATA 2

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	8	3	1	3	1

PREAMBLE: Analysis of population data through census data. This method explains the population growth, disease and transport network analysis.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand method of representation population growth- simple graph- semilog graph- lorence curve- age and sex structure.	1	30
UNIT 2 CO2: understand different methods of population potential map	2	30
UNIT 3 CO3: demarcation of representation of medical statistics- disease mapping and diagram	3	30
UNIT 4 CO4: skill of drawing of transport network analysis- connectivity and accessibility measures- alpha, beta,gamma indices, binary matrix, shortest path matrix, associated bumber, shimbel index, distance matrix- detour index.	4	30

SYLLABUS

UNIT I Population Growth - Simple Graph – Semilog Graph - Lorence curve - Age and Sex Structure.
UNIT II Triangular Graph - Deviational Graph - Population Potential map.
UNIT III Representation of Medical Statistics - Measurement of Vital Statistics- Disease
Mapping and Diagram.
UNIT IV Transport Network Analysis - Connectivity and Accessibility Measures – Alpha ,Beta, Gamma Indices, Binary Matrix, Shortest Path Matrix, Associated Number, Shimbel Index, Distance matrix - Detour Index.

BOOKS FOR REFERENC
1.   Alexander John W. - Economic Geography - Prentice Hall, New Delhi.
2.   Park. K - Medical Geography - Preventive and Social Medicine - M/S Banarsidas Publishers – 2007.
3.   Singh. R.L – Elements of Practical Geography – Kalyani Publishers, New Deli – 1979.
4.   Tafee E.J. and Gauthier H.L – Geography of Transportation –Prentice Hall,New Delhi – 1973.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Simple graph- semilog graph	15	Demonstration with topographical maps
	Lorence curve- age and sex structure	15	Demonstration with topographical maps
UNIT II			
	Triangular graph	10	Demonstration with topographical maps
	Deviational graph	10	Demonstration with topographical maps
	Population potential map	10	Demonstration with topographical maps
UNIT III			
	Medical statistics- measurement of vital statistics	12	Demonstration with topographical maps
	Disease mapping	12	Demonstration with topographical maps
	Diagram	6	Demonstration with topographical maps
UNIT IV			
	Transport network analysis- connectivity and accessibnility	10	Demonstration with topographical maps
	Measures- apha, beta,gamma indices, binary matrix	10	Demonstration with topographical maps
	Shortest path matrix, associated number, shimbel index, distance matrix- detour index	10	Demonstration with topographical maps

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	4	5	5	4	5	4	5	4.7
CO4	5	4	5	4	5	5	5	5	5	5	4.8

mean Overall score	4.375

Result: The Score for this Course is 4.375 (very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                     Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                          Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Elective IV**
Semester   : IV   **Hours   : 5 P/W   75Hrs P/S**
Sub. Code   : EGD   **Credits : 5**
   TITLE OF THE PAPER:TRANSPORT GEOGRAPHY

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: Transport geography is apart of regional geography

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: to know about the kinds of transport merits and demerits and factors associated with the development of transport.	1	15
UNIT 2 CO2: Learn and practice the transportation network, model accessibility methods.	2	15
UNIT 3 CO3: Examine the interaction models and connectivity models.	3	15
UNIT 4 CO4: Identify the hinder lands idealized process of development of socio economic integration	4	15
UNIT 5 CO5: To analyse growth and problem of transportation.	5	15

SYLLABUS

UNIT I: Nature, Scope, Significance and Development of Transport Geography - Transportation Types - Merits and demerits, Factors associated with the development of Transport. choice of mode of Transport .

UNIT II Transportation Networks - Aggregate measure – Topology - Network as a graph - Connectivity - Stages in the network - Network Structure - Measure of nodal Accessibility - Network as a matrix, Degree of a node, shortest path matrix ; Network as a valued graph.

UNIT III Demand - Indirect methods of measuring demand - interaction models - Gravity models Ullman's model - complementarity - Intervening opportunity - Critical appreciation of Gravity model-Flows in the Network - Flows and desire line connection - Intensity of flow, Allocation model - Capacitated Network.

UNIT IV Transportation and spatial structure - Hinterlands - Regional Specialization - idealized process of transportation development - Role of Transport in socio - economic integration.

UNIT V Urban Transportation - Growth and problems - Environmental Degradation, Vehicular pollution and congestion, Urban and regional Transport planning.

BOOKS FOR REFERENCE

1. Alka Gautam, Advanced Economic Geography – Shardar Pustak Bhavan- Allahabad-2010.
2. Chorley R.J & Haggett P - Models in Geography - Methuen & Co., Londen - 1966.
3. Eliot Hurst M.E. - Transportation Geography - McGraw Hill - 1974 .
4. Majid Husain - Transport Geography Anmol Publication, New Delhi - 1994.
5. Raza, M and Agrawal Y.P - Transport Geography of India – Concept Publication Co., New Delhi - 1985.
6. Robinson H& Bamfor C.G - Geography of Transport - Macdonald & Evans, London - 1978.
7. Saxena.H.M. Transport Geography – Rawat Publications , Jaipur 2010.
8. Sinha S.P - Transport Geography - Mittal Publications, New Delhi - 1993.
9. Taffee, E.J and Gauthier, H.L. - Geography of Transportation Prentice Hall, New Delhi -1973.
10. Wheel J. O et al - Economic Geography - John Wiley New York - 1995.

UNITS	TOPIC	LECTURE HOURS	MODE OF TEACHING
UNIT 1			
	Nature, Scope, Significance and Development of Transport Geography	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Transportation Types - Merits and demerits	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Factors associated with the development of Transport. choice of mode of Transport	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
UNIT 11			
	Transportation Networks - Aggregate measure-	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Network Structure - Measure of nodal Accessibility -	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Network as a matrix, Degree of a node, shortest path matrix ; Network as a valued graph	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
UNIT III			
	Demand - Indirect methodsinteraction models - Gravity modelsUllman's model.	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	complementarity - Intervening opportunity - Critical appreciation of Gravity model- Flows in the Network -	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Intensity of flow, Allocation model - Capacitated Network.	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
UNIT IV			

	Transportation and spatial structure - Hinterlands	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Regional Specialization - idealized process of transportation development	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Role of Transport in socio - economic integration.	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
UNIT V			
	Urban Transportation - Growth and problems - and congestion,	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Environmental Degradation, Vehicular pollution	5	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Urban and regional Transport planning.	5	Chalk and Talk , Demonstrate the network model through maps and ppt.

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	4	3	4	3	3	4	4	3	3	3.4
CO2	4	3	5	4	3	4	5	3	5	4	4
CO3	5	4	3	4	4	4	5	4	5	4	4.2
CO4	4	3	5	4	5	4	5	4	5	5	4.4
CO5	3	4	4	4	3	3	4	3	3	3	3.4
mean Overall score											3.8

Result: The Score for this Course is 3.8   (High relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                              Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                                        Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY　　　　　　　　**Part III: Elective IV**
Semester　: IV　　　　　　　　　　　　　　　　**Hours　: 5 P/W　75Hrs P/S**
Sub. Code　: EGD　　　　　　　　　　　　　　　**Credits : 5**
　　　　　　TITLE OF THE PAPER:GEO SPAIAL TECHNIQUES

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	2	1	1	1

PREAMBLE: The statistical techniques and measurement of scales in geography. Explain about the sampling frequency distribution and measures of central tendencies,knowledge about measures of dispersion and variability,the statistical significance apply the statistical knowledge about sampling.		
COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: To understand the statistical techniques and measurement of scales in geography.	1	15
UNIT 2 CO2: Explain about the sampling frequency distribution and measures of central tendencies.	2	15
UNIT 3 CO3: Acquire knowledge about measures of dispersion and variability.	3	15

UNIT 4 CO4: Understand the statistical significance apply the statistical knowledge about sampling.	4	15
UNIT 5 CO5: Identify the statistical models	5	15

SYLLABUS

UNIT I: Correlation and Regression: Pearson's correlation coefficient- Spearman's Rank correlation coefficient – Linear Regression for two variables.
UNIT II Statistical and Model Building: Types of Models - Scale- Conceptual or Normative and Mathematical .
UNIT III Spatial data modelling: geospatial data modelling – Raster vs Vector Data model – Types of spatial data modelling- Spatial meta data .
UNIT IV Application Domain: classification – Applications; Military,Navigation,   Commercial and Management areas
UNIT V Spatial interpolation: Uses – Types- Methods- Problems

BOOKS FOR REFERENCE:
1. Misra. R.P. & Ramesh - A Fundamentals of cartography - concept publishing company, New Delhi -2002.
2. Pijushkanti saha & Partha Basu - Advanced Practical Geography -Books & Allied (P) Ltd, Kolkata - 2004 .
3. Saroaj.k.pal - Statistics for Geoscientists - concept publishing company, New Delhi - 1998.
4. Saroaj. k.pal - Statistical Techniques - Tata McGraw Hill Publishing company Ltd. New Delhi - 1982.
5. Zamier Alvi - Statistical Geography Methods and Application –Rawat publication's, New Delhi -2008
6. Majid Husain – Models in Geography Rawat publication's, New Delhi -2007
7. Narayan Panigrahi-Geographical Information Science – University Press, Hydarabad-2008

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	3	3	3	4	3	3	4	3	3	4	3.33
CO2	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	3	3	4	3	3	3	4	3	3	4	3.3
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											3.926

Result: The Score for this Course is 3.926 (High Relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs = Total of Value	Mean Overall Score of COs = Total of Mean Score
Total No. of Pos & PSOs	Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.

Programme : M.Sc GEOGRAPHY   **Part III: Core 16**
Semester   : 4   **Hours   : 7 P/W   105 Hrs P/S**
Sub. Code   : GPW   **Credits: 5**
              TITLE OF THE PAPER: PROJECT WORK

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	7	-	1	5	1

PREAMBLE: Project work- Demonstrate knowledge and understanding of the management principles and apply these to theirs work, as a member and leader in a team, to manage projects. They will perform effectively as an individual, and as member or leader in diverse teams, and in multidisciplinary settings.

COURSE OUTCOME	Unit	Hrs P/S
At the end of the Semester, the Students will be able to		
UNIT 1 CO1: Understand the definition and concept of regional geography study about the principles and importance of regional geography	1	21
UNIT 2 CO2: Understand regional geography approach for the study about the principles and importance of regional geography	2	21
UNIT 3 CO3: Understand theoretical structure of planning by central place theory, Growth pole theory, Gunnar mydal's cumulative causation.	3	21

UNIT 4 CO4: study about causes,effect of regional disparties and remedies on disparties	4	21
UNIT 5 CO5: Understand the principles and importance of regional geography	5	21

Course outcomes(cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PSO1	PSO2	PSO3	PSO4	PSO5	
CO1	4	4	4	4	4	4	4	4	4	4	4
CO2	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5
CO4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4
mean Overall score											4.4

Result: The Score for this Course is 4.4 (Very High)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
Scale	1	2	3	4	5
Relation	0.0-1.0	1.1-2.0	2.1-3.0	3.1-4.0	4.1-5.0
Quality	Very Poor	Poor	Moderate	High	Very High

Mean Score of COs =   Total of Value
                                    Total No. of Pos & PSOs

Mean Overall Score of COs = Total of Mean Score
                                              Total No. of COs

BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
KNOWLEDGE	50%	50%
UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Department of Geography.