SRI MEENAKSHI GOVT ARTS COLLEGE FOR WOMEN (AUTONOMOUS)

MADURAI – 625 002.

(Re-Accredited with "A" Grade by NAAC 3rd cycle)

DEPARTMENT OF GEOGRAPHY

SYLLABUS FOR B.Sc GEOGRAPHY

CHOICE BASED CREDIT SYSTEM

2022-2023

SRI MEENAKSHI GOVERNMENT ARTS COLLEGE FOR WOMEN (A), MADURAI-2.

DEPARTMENT OF GEOGRAPHY

INTRODUCTION

The Department of Geography was established in the year **1968** with UGC 3Guest Lecturers 1 Lab Assistant and 283 UG and 35 PG students among its various academic ventures. It produce so many scholars and create more professionals in various fields. It is one of the centers for Tamil Nadu Open University for B.Sc., Geography Course. The department specializes in Geographical structure in relation to Geomorphology, Bio Geography, Advanced Cartography, Remote Sensing, Geo – Statistical Techniques and Morphogenetic Regions. The department regularly conducts conference and seminars as well as interdisciplinary seminars in collaboration with other departments and association meetings.

COURSE OFFERED

UG COURSE : B.Sc., Geography - Both Tamil Medium & English Medium

VISION OF THE DEPARTMENT

Geographers study the Earth's features but with a strong appreciation for the human environment relations that shape and are shaped by the distributions of these features across the landscape.

MISSION OF DEPARTMENT OF GEOGRAPHY

- To provide students with knowledge about the Earth's natural environment and its relationship to society.
- To provide students with knowledge about the World's people, nations, cultural environments and spatial organization.
- To provide students with a good grounding in the modern technical skills of the discipline, including computer cartography, spatial analysis, spatially oriented quantitative methods and techniques and Geographic Information System.
- To instill within each student an appreciation for the great variety of cultural forms and ways of thinking throughout the world and to help students formulate a World view that uses this appreciation to become responsible citizens in India

PROGRAMME OUTCOME OF B.SC GEOGRAPHY

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

PO1: Inculcate a sustained interest to learn new concepts, techniques and acquire discipline based knowledge

PO2: Relate their knowledge to design problem solving strategies addressing the demands in the society

PO3: Involve themselves in capacity building and hone their skills for technical , conceptual and creative excellence

PO4: Perceive a plan to take up Post Graduate programmes leading to research within and outside their disciplines

PO5: Contribute to the ecological space and be sensitive to the multi-dimensional aspects of our country and strive for harmonious existence through environment –friendly academic involvement

PROGRAMME SPECIFIC OUTCOME

PSO1: Understand the relationship of man and environment

PSO2 : Acquiring knowledge of physical and human geography

PSO3: Analysis the problems of physical and cultural environment

PSO4 : Utilize and apply the the skill in securing employment

PSO5: Application of GIS and modern geographical map making techniques

PSO6: Development of observation and interaction power

PSO7: Development of communication skill and lifelong learning

SRI MEENAKSHI GOVT.ARTS COLLEGE FOR WOMEN (AUTONOMOUS), MADURAI-2

DEPARTMENT OF GEOGRAPHY

U.G. CBCS - SEMESTER WISE PAPER LIST

(For Those Who Are Joined From July 2022 Onwards)

PROGRAMME: B.SC. GEOGRAPHY

SEMESTER–I

Part	Course Type	CODE	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							Int	Ext	Total
I	LC	U221A1/ U221H1	Tamil/Hindi	6	3	3	25	75	100
II	ELC	U222A1	English	6	3	3	25	75	100
III	CC–I	U22CG1	Core I - GEOMORPHOLOGY	6	5	3	25	75	100
III	CC–II	U22CG2P	Core II Practical 1– REPRESENTATION OF MAP SCALES AND RELIEF.	3	3	3	40	60	100
III	AC-I	U22ABGT 1	First Allied Paper I (T) - Botany	4	3	3	25	75	100
III	AC–II	U22ABGP	First Allied Practical - Botany	3	--	--	--	--	---
IV	AEC	U22AE1	Value Education	2	2	3	25	75	100
Total				**30**	**19**				**600**

SEMESTER–II

Part	Course Type	CODE	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							Int	Ext	Total
I	LC	U221A2/ U221H2	Tamil/Hindi	6	3	3	25	75	100
II	ELC	U222A2	English	6	3	3	25	75	100
III	CC–III	U22CG3	Core III - CLIMATOLOGY	6	5	3	25	75	100
III	CC–IV	U22CG4P	Core IV Practical II– REPRESENTATION OF CLIMATIC DATA AND WEATHER MAP INTREPRETATION	3	3	3	40	60	100
III	AC-II	U22ABGP	First Allied Practical- Botany	3	3	3	40	60	100
III	AC-III	U22ABGT2	First Allied Paper II (T)- Botany	4	4	3	25	75	100
IV	AEC	U22AE2	Environmental Studies	2	2	3	25	75	100
Total				**30**	**23**				**700**

SEMESTER–III

Part	Course Type	CODE	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							Int	Ext	Total
I	LC	U221A3/ U221H3	Tamil/Hindi	6	3	3	25	75	100
II	ELC	U222A4	English	6	3	3	25	75	100
III	CCV	U22CG5	Core V - OCEANOGRAPHY	6	4	3	25	75	100
III	CCVI	U22CG6P	Core VI Practical III– MAP PROJECTION	3	3	3	40	60	100
III	AC–IV	U22AEG1	Second Allied Paper1(T) – Statistics – I (Economics)	6	4	3	25	75	100
III	AC–V	U22AGGP	Allied Practical – Statistical Diagrams and Maps	1	--	--	--	--	--
IV	NMEC–I	U22NMG1	NMEI – Fundamentals of Physical Geography	2	2	3	25	75	100
IV			Extension Activity		1		100	-	100
Total				**30**	**20**				**700**

SEMESTER–IV

Part	Course Type	CODE	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							Int	Ext	Total
I	LC	U221A4/ U221H4	Tamil/Hindi	6	3	3	25	75	100
II	ELC	U222A4	English	6	3	3	25	75	100
III	CC-VII	U22CG7	Core VII – CARTOGRAPHY	4	4	3	25	75	100
III	CC- VIII	U22C G8P	Core VIII – Practical IV- SURVEYING	3	3	3	40	60	100
III	AC–V	U22AGGP	Allied Practical Statistical Maps and Diagrams	1	2	3	40	60	100
III	AC–VI	U22AEG2	Second Allied Paper II(T) Statistics – II (Economics)	6	4	3	25	75	100
IV	NMEC–II	U22NMG 2	NME II – Social - Cultural Geography	2	2	3	25	75	100
IV	SEC–I	U22S3EG1	Skill Enhancement Course- 1 Theory – POPULATION DATA ANALYSIS	2	2	2	25	75	100
Total				**30**	**23**				**800**

SEMESTER–V

Part	Course Type	CODE	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							Int	Ext	Total
III	CC–IX	U22CG9	Core IX – WORLD REGIONAL GEOGRAPHY	5	5	3	25	75	100
III	CC–X	U22CG10	Core X – GEOGRAPHY OF INDIA	5	5	3	25	75	100
III	CC–XI	U22CG11	Core XI– HUMAN GEOGRAPHY	5	5	3	25	75	100
III	CC–XII	U22CG12P	Core XII - Practical V - THEMATIC DATA ANALYSIS AND MAP INTREPRETATION	6	5	3	40	60	100
III	DSEC	U22DSG1A/ U22DSG1B	DISCIPLINE SPECIFIC ELECTIVE COURSE 1- GEOGRAPHY OF RESOURCES / AGRICULTURAL GEOGRAPHY	5	5	3	25	75	100
IV	SEC– II	U22SEG2	Skill Enhancement Course -II Theory – PRINCIPLES OF GIS & GNSS	2	2	-	25	75	100
IV	SEC - III	U22SEG3P	Skill Enhancement Course III Practical –FIELD SURVEY AND MAPPING ANAYSIS	2	2	2	40	60	100
Total				**30**	**29**				**700**

SEMESTER–VI

Part	Course Type	CODE	Title of the Course	Hrs/ Week	Credits	Exam Hrs	Marks		
							Int	Ext	Total
III	CC–XIII	U22CG13	Core XIII – GEOGRAPHY OF SETTLEMENTS	6	5	3	25	75	100
III	CC–XIV	U22CG14	Core XIV – PRINCIPLES OF REMOTE SENSING	5	5	3	25	75	100
III	CC–XV	U22CG15P	Core XV – Practical VI – AERIAL PHOTO & SATELLITE IMAGE INTREPRETATION	5	4	3	40	60	100
III	DSEC– II	U22DSG2A / U22DSG2B	DISCIPLINE SPECIFIC ELECTIVE COURSE II – GEOGRAPHY OF TAMILNADU / BIOGEOGRAPHY	5	4	3	25	75	100
III	DSEC–III	U22DSG3A / U22DSG3B	DISCIPLINE SPECIFIC ELECTIVE COURSE III – GEOGRAPHY OF ASIA / GEOGRAPHY OF TRAVEL AND TOURISM	5	4	3	25	75	100
III	GECI	U22GEG1A / U22GEG1B	Generic Elective Course – GEOGRAPHY OF HEALTH / Disaster Management	2	2	3	25	75	100
V	AECIII	U22AE36	Ability Enhancement Course – General Knowledge	2	2	3	25	75	100
Total				**30**	**26**				**700**

COURSE STRUCTURE ABSTRACT FOR B.SC. PROGRAMME

Part	Course		Total No of Papers	Hours	Credit	Marks
I	Language Course (LC)		4	24	12	400
II	English Language Course (ELC)		4	24	12	400
III	Core Course(CC)		15	73	63	1500
III	Allied Course (AC)		6	28	20	600
III	Major Based Elective Course (MBEC)		3	13	13	300
III	Generic Elective Course (GEC)		1	2	2	100
IV	Non -Major Elective Course(NMEC)		2	4	4	200
IV	Skill Enhancement Course(SEC)		3	6	6	300
IV	Ability Enhancement Course(AEC)	Value Education	1	2	2	100
IV		Environmental Studies	1	2	2	100
IV		General Knowledge	1	2	2	100
V	NCC/NSS/Extension Activities		-1	-	1	100
Total			**42**	**180**	**140**	**4200**

Extra Credit Courses*				
Value Added Course – MAPPING TECHNIQUES FOR OTHER STUDENTS (III SEMESTER)	**1**	**2**	**2**	**50 (20+30)**
Value Added Course COMPUTER ASSISTED CARTOGRAPHY FOR MAJOR STUDENTS (IV SEMESTER)	**1**	**2**	**2**	**50 (20+30)**
Total	**44**		**144**	**4300**

Extra Credit Courses*-to be discussed

Programme : B.SC GEOGRAPHY **Part III: Course Type -I**
Semester : I **Hours : 6 P/W 90 Hrs P/S**
Sub. Code :U22CG1 **Credits : 5**

Title of the Paper**: GEOMORPHOLOGY**

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

PREAMBLE: The paper emphasize the knowledge about Remote Sensing –Elements of Remote Sensing and Computer based tool for mapping and analyzing feature events on earth

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Acquisition of information about an origin of the earth and its theory.	1	18
UNIT 2 CO2: To understand the theories	2	18
UNIT 3 CO3: to know about the earth movements	3	18
UNIT 4 CO4: to collect the informations of geomorphic process	4	18
UNIT 5 CO5:To identify the evolution of landforms	5	18

SYLLABUS

UNIT I: Geomorphology Meaning – Scope of geomorphology - Origin of the earth – Gaseous Hypothesis of Immanuel Kant - Nebular theory of Laplace – Tidal hypothesis of James Jeans and Modification by Jeffrey. Structure – Interior of the Earth

UNIT II: Theory of Isostasy - Wegner's Continental drift theory – seafloor spreading – Plate Tectonics

UNIT III: Earth movements – Endogenetic and Exogenetic- Folds – Faults –Earthquakes-Origin of Volcanoes and Types, Major Landforms – Types of Mountain, Plateaus, Plains.

UNIT IV: Geomorphic process - Rocks - classification of rocks - Igneous, sedimentary and metamorphic rocks. Weathering – controlling factors - types – mass movement – Soil formation - soil profile - types - erosion and conservation- Fluvial landforms- drainage patterns- normal cycle of erosion –Davis and Penck.

UNIT V: Evolution of landforms - Erosional landforms – Depositional landforms – River – Wind – Karst - Coastal - Glacier.

BOOKS FOR REFERENCES:

1. Das Gupta – Principles of Physical Geography - Chand and Company, New Delhi.1999
2. Kellaway P. George: A Background of Physical Geography - Macmillan Company – 1966.
3. Monkhouse: Principles of Physical Geography – University of London – 1975.
4. Phillip Lake: Physical Geography – Macmillan & Company – 1966.
5. Strahler H. Alan: Modern Physical Geography – John Wiley & Sons 1992.
6. Strahler H. Alan: Principles of physical Geograpyhy - John Wiley & sons1992.
7. Thornbury : Principles of Geomorphology – John Wiley & Sons – 1984.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Geomorphology Meaning – Scope	6	Chalk & talk
	Origin of the Theories	6	Video lecture and student seminar, PPT
	Structure and Interior of the Earth	6	PPT lecture
UNIT II			
	Continental drift theory	6	Chalk & talk, PPT,
	Seafloor spreading	6	PPT lecture , video
	Plate tectonic theory	6	Video lecture and PPT
UNIT III			
	Endogentic and Exogentic forces	6	Chalk & talk , PPT, reference
	Earthquake and Volcanoes	6	PPT , videos lecture
	Major landforms	6	e-content and references
UNIT IV			
	Rocks & types	6	PPT lecture
	Weathering	6	PPT lecture and student seminar
	Cycle of Erosion Theory	6	PPT And Video Lecture
UNIT V			
	Evolution of landforms	6	Chalk and talk and chart-test
	River, Wind	6	PPT and video, reference
	Karst, Coastal and Glacial	6	PPT, video, reference

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	5	3	3	4	4	3	5	4	3	5	4	3	5	3.9
CO2	5	4	3	3	3	4	5	4	3	5	3	4	5	3	3.9
CO3	5	3	3	4	4	3	3	3	4	5	5	4	3	3	3.7
CO4	3	3	4	5	4	5	4	3	4	4	5	4	3	3	3.9
CO5	5	4	3	4	5	4	5	4	4	3	3	4	5	3	4.0
Mean Overall Score															3.9

Result: The Score for this Course is 3.9 (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 = $\frac{\text{Total of Value}}{\text{Total No. of Pos \& PSOs}}$

Mean Overall Score of COs = $\frac{\text{Total of Mean Score}}{\text{Total No. of COs}}$

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

Course Designer: Dr.S.Usha Buvanewari

Programme : B.Sc GEOGRAPHY **Part III: Course Type -II**
Semester : I **Hours : 3 P/W 45 Hrs P/S**
Sub. Code : U22CG2P **Credits : 3**

Title of the Paper**: REPRESENTATION OF MAP SCALES AND RELIEF**

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

PREAMBLE: The practical paper explains the Maps, Maps Scale, Representation of Reliefs by Contours and mathematical methods.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the map scale and their types	1	11
CO2:Acquire more knowledge about plain scale, comparative scale and diagonal scale	2	11
CO3: Develop mapping skill through the Representation of Relief: Hill shading – contouring and form lines	3	12
CO4: Develop the skill to draw the cartographic relief features like hills, plateau, valleys and ridges	4	11

SYLLABUS

UNIT I: Determination of Map scale – Types ; Statement and Representative Fraction.

UNIT II: Construction of Graphical Scale - Plain Scale ,Comparative and Diagonal Scale.

UNIT III: Representation of Relief ;- Pictorial , Hachuring and Hill Shading Mathematical Methods , Spot Heights, Contouring and Form Lines

UNIT IV: Relief Features: Cross Section , Hill, Plateau, Ridge, Saddle, Pass, Knoll ,Slopes, Valleys and cliff

BOOKS FOR REFERENCES:

1. Jayachandaran, S. (1964). Practical Geography (Tamil Edition). Tamil Nadu Text Book Society, Chennai.
2. Khan, M.Z.A. (1998). Text Book of Practical Geography. Concept Publishing Company, New Delhi.
3. Negi, B.S. (1998). Practical Geography. Kedarnath and Ramnath, Meerut.
4. Singh, G. (1995). Map Work and Practical Geography (3rd Edition). Vikas Publishing House Pvt. Ltd., New Delhi.
5. Monkhouse, F.J. and Wilkinson, H.R. (1971). Maps and Diagrams (3rd Edition). Methuen & Co., London.
6. Saha, P. and Basu, P. (2013). Advanced Practical Geography. Kolkata Books and Allied Publisher, Kolkata.
7. Alvi, Z. (1998). A Text book of Practical Geography. Sangam Books Limited,Hyderabad.
8. Herubin, C.A. (1991). Principles of Surveying (4th Edition). Prentice Hall, New Jersey.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Determination of map scale	3	Chalk And Talk ,Demonstration and using maps and models
	Types of map scale	4	Chalk And Talk ,Demonstration and using instruments
	Statement and representative fraction	4	Chalk And Talk ,Demonstration and using instruments
UNIT II			
	Scale construction- plain scale	4	Chalk And Talk ,Demonstration and using instruments
	Comparative scale	3	Chalk And Talk ,Demonstration and using instruments
	Diagonal scale	4	Chalk And Talk ,Demonstration and using instruments
UNIT III			
	Relief representation- pictorial, hachuring and hill shading	6	Using topographical sheet , Demonstration and using chats
	Mathematical methods, spot heights, contouring and form lines	6	Demonstration and using instruments
UNIT IV			
	Relief features – cross section, hill, plateau	4	Using climatic data and weather reports.
	Ridges, saddle, pass	3	Using climatic data and weather reports.
	Knoll, slopes, valleys and cliff	4	Using climatic data and weather reports.

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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.25

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: Mrs.M.Sirasunisa Begum

Programme : B.Sc. GEOGRAPHY **Part III: Course Type 4**
Semester : II **Hours : 6 P/W 90 Hrs P/S**
Sub. Code : U22CG3 **Credits: 5**

Title of the Paper: **CLIMATOLOGY**

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

PREAMBLE: It is a part of physical geography, the scientific study of climate. It explains elements of climate.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1 : Understand the importance of weather and climate	1	18
CO2 : Know about the insolation and heat budget of the earth and the Atmosphere	2	18
CO3: Temperature- horizontal and vertical- pressure belts and the Planetary wind belt wind - seasonal winds –local winds	3	18
CO4: Familiar about the atmospheric humidity – measurement- fog - Clouds –Precipitations	4	18
CO5: Know about the Air mass- classification - cyclones origin and distribution of Climatic, anti cyclones - thunderstorms- tornado – Jet streams- Climatic classification	5	18

SYLLABUS

UNIT I :Climatology – meaning , scope and content– climatology and meteorology - composition of the atmosphere –structure of the atmosphere.

UNIT II : Insolation – meaning – distribution of insolation – factors affecting the distribution – heat budget of the earth and the atmosphere.

UNIT III: Temperature –controlling factors of temperature distribution - horizontal and vertical – Pressure –variations in atmospheric pressure –horizontal distribution of pressure and pressure belts - Wind - General circulation – Planetary wind belt – seasonal winds –local winds

UNIT IV: Atmospheric Humidity - measurement of humidity - Evaporation – evapotranspiration - Condensation – forms of condensation – fog - Clouds – Precipitations – forms - types and distribution.

UNIT V: Air mass - classification of air masses - cyclones – origin and distribution of tropical and temperate cyclones - anti cyclones - thunderstorms- tornado – Jet streams- Climatic classification – Koppen's - Thronthwaite's classification.

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(1999)-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. Oliver. John E, and John J Hiddore,(2003) Climatology - An Atmospheric Science – Pearson Education (Singapore) PVT.Ltd, New Delhi - 2003.
8. Siddhartha.K . Atmosphere Weather And Climate Kisalaya Publication Pvt . Ltd New Delhi

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT I			
	Meaning, Scope & Content	6	Maps, Atlas , VLC and PPT
	composition of atmosphere –	6	Maps, Atlas , VLC and PPT
	structure of atmosphere	6	Maps, Atlas , VLC and PPT
UNIT II			
	Distribution of insolation	6	Maps, Atlas , VLC and PPT
	factors affecting the distribution	6	Maps, Atlas , VLC and PPT
	Heat budget of the earth and the atmosphere	6	Maps, Atlas , VLC and PPT
UNIT III			
	Controlling factors of temperature distribution	6	Maps, Atlas , VLC and PPT
	Variations in atmospheric pressure	6	Maps, Atlas , VLC and PPT
	General circulation of wind	6	Maps, Atlas , VLC and PPT
UNIT IV			
	Measurement of humidity	6	Maps, Atlas , VLC and PPT
	Evaporation – evapotranspiration - Condensation	6	Maps, Atlas , VLC and PPT
	Fog - Clouds –Precipitations	6	Maps, Atlas , VLC and PPT
UNIT V			
	classification of air masses	6	Maps, Atlas , Census Report VLC and PPT
	Cyclones- Anti cyclones	6	Maps, Atlas , VLC and PPT
	Climatic classification	6	Maps, Atlas , VLC and PPT

Course Outcomes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score															4.2

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 : B.Sc GEOGRAPHY **Part III: Course Type-IV**
Semester : II **Hours : 3 P/W 45 Hrs P/S**
Sub. Code : U22CG4P **Credits: 3**

Title of the Paper**: REPRESENTATION OF CLIMATIC DATA AND WEATHER MAP INTERPRETATION**

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

PREAMBLE: The practical paper explains Representation of Climatic Data: Climatic graph, Water budget graph, Climograph, Hyther Graph, Rainfall dispersion diagram, Ergo Graph and Wind Rose: Simple and Octagonal wind rose. Maps and Instruments. Study of Indian Daily Weather maps

COURSE OUTCOME: At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Representation of Climatic Data: Climatic graph, Water budget graph, and Climograph.	1	10
CO2: Hyther Graph, Rainfall dispersion diagram, Ergo Graph and Wind Rose: Simple and Octagonal wind rose.	2	10
CO3: Maps and Instruments- Weather Elements on map Meteorological signs and symbols- Weather Station model- Salient features of Indian Seasons.	3	10
CO4: Study of Indian Daily Weather maps: Information - Procedures of interpretation - Interpretation of Indian daily weather Report.	4	15

SYLLABUS

UNIT I: Representation of Climatic Data: Climatic graph, Water budget graph and Climograph.

UNIT II: Hyther Graph, Rainfall dispersion diagram, Ergo Graph and Wind Rose: Simple and Octagonal wind rose.

UNIT III: Weather Maps and Instruments- Weather Elements on map- Meteorological signs and symbols- Weather Station model- Salient features of Indian Seasons.

UNIT IV: Study of Indian Daily Weather maps: Information - Procedures of interpretation –Interpretation of Indian daily weather Report.

BOOKS FOR REFERENCES:

1. Ahmad khan. M.Z- Text Book of practical Geography – Concept Publishing company ,New Delhi – 1988.
2. Ishtiaq M. – A text Book of practical Geography – Heritage Publishers - New Delhi - 2001.
3. Jayachandran.S – Practical geography – Tamilnadu Book Society, Chennai, 1963 (Tamil copy).
4. Misra R.P. and Ramesh. A – Fundamentals of Cartography – Concept Publishing company – New Delhi – 2002.
5. Monkhouse F.J. & Wilkinson H.R - Maps and Diagrams- Methuen, London - 1994.
6. Dr. Pijushkanti Saha & Dr. ParthBasu - Advanced Practical Geography – A Laboratory Manual - Books&Allied Pvt.Ltd,Kolkatta - 2004.
7. Singh and Kanunja - Map work and Practical Geography –Central Book Depot –Allahabad – 1979
8. Singh R.L - Elements of Practical Geography – Kalyani PublisheNew Delhi - 1979.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Representation of climatic data: Climatic graph	3	Chalk And Talk ,Demonstration and using maps and models
	Water budget graph	3	Chalk And Talk ,Demonstration and using instruments
	Climograph	4	Chalk And Talk ,Demonstration and using instruments
UNIT II			
	Hyther Graph,	3	Chalk And Talk ,Demonstration and using instruments
	Rainfall dispersion diagram	3	Chalk And Talk ,Demonstration and using instruments
	Ergo Graph & wind rose	4	Chalk And Talk ,Demonstration and using instruments
UNIT III			
	Weather maps and instruments	3	Using topographical sheet , Demonstration and using chats
	Weather elements	3	Demonstration and using instruments
	Meteorological sign and symbols - Weather Station model	4	Demonstration and using instruments
UNIT IV			
	Study of Indian daily weather maps.	5	Using climatic data and weather reports.
	Procedure of interpretation	5	Using climatic data and weather reports.
	Weather map interpretation.	5	Using climatic data and weather reports.

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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.25

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: Dr.A.Gandhimathi

Programme : B.Sc GEOGRAPHY **Part III: Course Type -V**
Semester : III **Hours : 6 P/W 90 Hrs P/S**
Sub. Code : U22GCG5 **Credits :4**

Title of the Paper**: OCEANOGRAPHY**

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

PREAMBLE: Oceanography is a branch of physical geography deals with meaning scope, ocean temperature, salinity and density. Dynamics of ocean and corals, marine deposits and marine resources.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Acquire knowledge about the meaning , scope and significance of oceanography and configuration of ocean floor	1	18
CO2:understand the Temperature , Salinity and Density of sea water – Atlantic, Pacific and Indian Ocean .	2	18
CO3: Familiar with Dynamics of Ocean Water – Waves and Tides and Tsunami	3	18
CO4: understand the types and general Ocean Currents- Types- Corals	4	18
CO5: develop knowledge about the Marine Deposits and Marine Resources.	5	18

SYLLABUS

UNIT I : Oceanography – meaning – scope and importance of oceanography- Distribution of land and sea –ocean bottom – continental shelf, continental slope, and deep sea plain, deeps and trenches-submarine canyons - Bottom topography of Atlantic, Pacific and Indian Ocean.

UNIT II: Temperature – Process of Heating and Cooling- distribution of temperature – horizontal and vertical - Salinity- Sources - Controlling factors - distribution of salinity – horizontal and vertical.

UNIT III: Oceanic movements - waves and tides –ocean Currents of Atlantic, Pacific and Indian Oceans - El Nino and La Nina.

UNIT IV: Marine resources – classification - coral reef – conditions of Growth - types and distribution of coral reefs Theories of origin.

UNIT V: Marine deposits- Sources and types – Classification – Marine Sediments – Distribution of Sediments.

BOOKS FOR REFERENCES:

1. Alyn.c.Duxbury and Alison . B. Duxbury- an introduction to the world's oceans- Addison Wesley publishing company ltd .1994.
2. Chorley.R.J- Introduction to Physical Hydrology- Methuen – 1974.
3. Das Gupta-Principles of Physical Geography – Chand & Co-New Delhi - 1955.
4. Gorden Pirie.R-Oceanography-Oxford University Press- U.S.A -1977.
5. Monkhouse- Principles of Physical Geography-John Wiley & Sons - 1992.
6. Philip Lake- Physical Geography- MacMillan & Co - 1966.
7. Siddhartha.K.- Oceanography- A Brief Introduction – Kisalya Publication, Pvt.Ltd - 1999.
8. Sharma and Vatal-Oceanography for Geographers –Chaitanya Publication - 1986.
9. Strahler – Physical Geography - John Wiley & Sons – New York -1992.
10. Tom Garrison – Oceanography – An Introduction to Marine Science – Words Worth Publishing Company – Belmont – California - 1993.

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNITI			
	Meaning – scope and importance of oceanography	6	Group discussion, Maps and Atlas
	Distribution of land and sea	6	Group discussion, Maps and Atlas
	Bottom topography	6	Group discussion, Maps and Atlas
UNIT II			
	Process of Heating and Cooling	6	chalk and talk and usage of maps and atlas
	Salinity	6	chalk and talk and usage of maps and atlas
	Horizontal and vertical.	6	chalk and talk and usage of maps and atlas
UNIT III			
	Oceanic movements	6	Maps , Atlas , Models and VLC
	waves and tides –.	6	Maps , Atlas , Models and VLC
	Ocean Currents - El Nino and La Nina	6	Models and VLC
UNIT IV			
	Marine resources	9	Maps , Atlas , Models and VLC
	Theories	9	Maps , Atlas , Models and VLC
UNIT V			
	Marine Deposits	9	Maps , Atlas , Models and VLC
	Marine Sediments	9	Maps , Atlas , Models and VLC

Course Outcomes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score															4.6

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: Mrs.N.Pothumani

Programme : B.SC GEOGRAPHY **Part III: Course Type –VI**
Semester : III **Hours : 3 P/W 45 Hrs P/S**
Sub. Code : U22CG6P **Credits : 3**

Title of the Paper**: MAP PROJECTIONS**

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

PREAMBLE: The paper demonstrate the construction, understand and practice different types of Map projections.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: understand the construction methods of different types of directions and Bearings	1	11
CO2: Construct and Analyse the measurement of area and measurement of Distance with Thread, Divider and Rotometer methods.	2	11
CO3: Construct and understand the classification of projections(Cylindrical , Equidistant, Equal area and Mercator's projection)	3	11
CO4: Understand to measure the conical ,Zenithal , Polyconic, Mollweide and Sinusoidal projections.	4	12

SYLLABUS

UNIT I : Direction – Bearings - Quarter Angle and Whole Circle Bearings.

UNIT II : Measurement of Area ; Square and Triangle – Measurement of Distance – Thread , Divider and Rotometer .

UNIT III : Map Projection -Meaning – Classification – Construction (Graphical) and uses – choice of projections -Cylindrical Projection : Equidistant – Equal area -Mercator's Projection.

UNIT IV : Conical Projections : One Standard Parallel , Two Standard parallels ,Bonne's projection and Polyconic projections - Zenithal Projection :Equidistant -Equal Area – Gnomonic – Stereographic Projection – Mollweide - Sinusoidal .

BOOKS FOR REFERENCES

1. Gopal singh, (1996). Map work and practical geography, Vikas Publishing House Pvt.Ltd.,
2. Khullar, (1997). Practical Geography, Educational Publishers, New Delhi.
3. Monkhouse, F.J. and Wilkinson, H.R., (1989). Maps and Diagrams, B.I.Publications, New Delhi.
4. Pijushkanti Saha and Partha Basu, (2010). Advanced Practical Geography, Books and Allied (P) Ltd, Kolkata.
5. Singh, R. L., (2005). Elements of Practical Geography, Kalyani Publishers, New Delhi.
6. Zulfequar Ahmad Khan, M. D., (1998). Text Book of Practical Geography, Concept Publishing Company, New Delhi.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Introduction of Directions and Bearing	6	Chalk And Talk ,Demonstration and using instruments(computer)
	Quarter angle and whole circle Bearings	5	Chalk And Talk ,Demonstration and using instruments
UNIT II			
	Measurements of area – Square and Triangle	6	Chalk And Talk ,Demonstration and using instruments
	Measurements of Distance – Thread, divider and Rotometer	5	Chalk And Talk ,Demonstration and using instruments
UNIT III			
	Map projections Classification– choice of projection- Cylindrical Projection: Equidistant – Equal area – Mercator's Projection	8	Chalk And Talk ,Demonstration and using instruments
	Construction (Graphical) and uses	3	Chalk And Talk ,Demonstration and using instruments
UNIT IV			
	Conical Projections : One Standard parallel, Two Standard parallels , Bonne's projection	6	Chalk And Talk ,Demonstration and using instruments
	Polyconic projections - Zenithal Projection: Equidistant – Equal Area – Gnomonic – Stereographic Projection	3	Chalk And Talk ,Demonstration and using instruments
	Mollweide – Sinusoidal	3	Chalk And Talk ,Demonstration and using instruments

Course Outcomes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.75

Result: The Score for this Course is 4.75 (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 Mean Score / Total No. of COs		

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

Course Designer: Mrs.M.Sirasunisa Begum

Programme : B.SC GEOGRAPHY **Part III: Course Type- AC-V**
Semester : III & IV **Hours : 1+ 1 P/W - 15+15= 30 Hrs P/S**
Sub. Code : U22AGGP **Credits : 2**

Title of the Paper**: STATISTICAL MAPS AND DIAGRAMS**

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	1+1	30 MINS	30 MINS	30 MINS	30 MINS

PREAMBLE: This practical course explains the method of representation of statistical data in the form diagrams and maps

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the method of representation of statistical data in the form of diagrams.	1	3 + 3
CO2: Acquire more knowledge about the differentiation of two dimension and three dimension graphs and diagrams	2	3 + 3
CO3: Develop the mapping skill about the representation of the diagrams in the maps	3	4 + 4
CO4: Familiar with the cartographic skill through the preparation of diagrams and maps.	4	5+ 5

SYLLABUS

UNIT – I: Graphs- Line graph – Multiple graph – Band graph

UNIT–II: One dimensional - Bar Diagram : Simple Bar – Vertical Bar – Horizontal Bar and Compound Bar – Compared Bar – Multiple Bar- Pyramidal Bar.

UNIT – III: Two dimensional diagram – squire – circle and pie diagram

UNIT – IV: Three dimensional diagram – cube – Spherical diagram. Locational diagram maps: Line – Bar – Circle and Pie diagram maps.

BOOKS FOR REFERENCE

1. Ahmad khan. M.Z- Text Book of practical Geography – Concept Publishing company ,New Delhi – 1988.
2. Ishtiaq M. – A text Book of practical Geography – Heritage Publishers - New Delhi - 2001.
3. Jayachandran.S – Practical geography – Tamilnadu Book Society, Chennai, 1963 (Tamil copy).
4. Misra R.P. and Ramesh. A – Fundamentals of Cartography – Concept Publishing company – New Delhi – 2002.
5. Monkhouse F.J. & Wilkinson H.R - Maps and Diagrams- Methuen, London - 1994.
6. Dr. Pijushkanti Saha & Dr. ParthBasu - Advanced Practical Geography – A Laboratory Manual - Books&Allied Pvt.Ltd,Kolkatta - 2004.
7. Singh and Kanunja - Map work and Practical Geography –Central Book Depot –Allahabad – 1979
8. Singh R.L - Elements of Practical Geography – Kalyani PublisheNew Delhi - 1979.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Statistical method: Line graph-	1+1	Chalk And Talk ,Demonstration and using instruments(computer)
	Multiple graph	1+1	Chalk And Talk ,Demonstration and using instruments (computer)
	Band graph	1+1	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT 11			
	One dimensionall - Bar Diagram : Simple Bar – vertical Bar – Horizontal	2+2	Chalk And Talk ,Demonstration and using instruments(computer)
	Bar Compound Bar – Compared Bar – Multiple Bar- Pyramidal Bar.	1+1	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT III			
	Two dimensional diagram – squire – circle	2+2	Chalk And Talk ,Demonstration and using instruments(computer)
	pie diagram	2+2	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT IV			
	Three dimensional diagram – cube – spherical diagram. Locational maps	3+3	Chalk And Talk ,Demonstration and using instruments(computer)
	Line – Bar – Circle and Pie diagram maps	2+2	Chalk And Talk ,Demonstration and using instruments(computer)

Course Outcomes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.75

Result: The Score for this Course is 4.75 (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: Mrs.N.Pothumani

Programme : B.Sc GEOGRAPHY **Part IV: Course Type –NMEC-I**
Semester : IV **Hours : 2 P/W 30 Hrs P/S**
Sub. Code : U22NMG1 **Credits : 2**

Title of the Paper**: FUNDAMENTALS OF PHYSICAL GEOGRAPHY**

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

PREAMBLE: The paper explain solar System, shape and size of the earth system earth fundamentals of physical geography

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Geography –Solar System – Shape & Size of the Earth	1	6
CO2: Interior of the Earth – Earth Movement	2	6
CO3: Rocks – Igneous- Sedimentary- Metamorphic .	3	6
CO4: Weathering - Factors –Physical, Chemical, Biological.	4	6
CO5: Elements of weather and climate – temperature , pressure , wind, humidity and precipitation	5	6

SYLLABUS

UNIT – I : Scope and content of physical geography – the Earth and Universe, solar system, shape of the Earth – Latitude , Longitude.

UNIT – II: Movement of the Earth: Rotation and Revolution – Interior of the Earth – Internal structure.

UNIT –III: Plate Tectonic – Rocks – types and classification - Igneous, Sedimentary, Metamorphic folding, faulting- Earthquake and Volcanoes.

UNIT – IV: Forces of gradation and Weathering – factors – Physical, Chemical and Biological – Mass wasting and Mass Movement.

UNIT – V: Weather and Climate – Definition, Elements of Weather and Climate – Temperature, Pressure, Wind, Humidity and Precipitation.

BOOKS FOR REFERENCE

1. Das Gupta & Kapoor – Principles of Physical Geography – Chand & Co., Ltd.,New Delhi - 2004.
2. Sharma. T.C. & Coutino - Economic and Commercial Geography of India – Vikas Publishing House Pvt. Patna - 1980.
3. Strahler A.H.& Strahler. A.N. – Modern Physical Geography – John Willey& sons - 2004.
4. Surendar Singh – Geography for the UPSC Civil Service – Preliminary Examination – Tata Mc Graw Hill – New Delhi - 2007.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Geography – Definition – Solar System – Shape & Size of the Earth	6	Chalk and talk, ,Grouph discussion,with Models , PPT and VLC
UNIT II			
	Interior of the Earth – Earth Movement	2	Chalk and talk, ,Grouph discussion,with Models , PPT and VLC
	Fold, Fault,	4	Chalk and talk, ,Grouph discussion,with Models , PPT and VLC
UNIT III			
	Rocks – Igneous- Sedimentary- Metamorphic .	6	Chalk and talk, ,Grouph discussion,with Models , PPT and VLC
UNIT IV			
	Weathering - Factors –Physical, Chemical, Biological.	6	Chalk and talk, ,Grouph discussion,with Models , PPT and VLC
UNIT V			
	Elements of weather and climate – temperature , pressure , wind, humidity and precipitation	6	Chalk and talk, ,Grouph discussion,with Models , PPT and VLC

Course Outcomes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score															4.6

Result: The Score for this Course is 4.6 (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 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 : B.SC GEOGRAPHY **Part III: Course Type -VII**
Semester : IV **Hours : 4 P/W 60Hrs P/S**
Sub. Code : U22CG7 **Credits :4**

Title of the Paper**: CARTOGRAPHY**

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

PREAMBLE:

The Paper on cartography describes nature-scope – modern trends- latitudes –longitudes- international date line and maps scale – maps - point- line- area- symbols- contours- map projection

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understanding about the meaning and nature of cartography	1	12
UNIT 2 CO2: Getting knowledge about map design with tools and techniques.	2	12
UNIT 3 CO3: Analyzing the symbolizing and processing the map data.	3	12
UNIT 4 CO4: Attain the familiarity about reliefs in maps, climate & hydrological data and explain about socio economic data.	4	12
UNIT 5 CO5: Knowledge about map projections and classification.	5	12

SYLLABUS

UNIT I : Meaning and Nature of Cartography – Cartography as a Science – Historical Development – Maps – Types of Maps – Compilation and Generalization of maps.

UNIT II: Map Design and Layout – Lettering and Toponomy – Tools and Techniques for Drawing - Map Construction and Reproduction.

UNIT III: Symbolizing and Processing Data - Diagrams on Maps – Point, Line, Area and Volume Symbols – Qualitative and Quantitative maps.

UNIT IV: Mapping the Geologic Structure, Relief and Terrain Data – Mapping the Climatological and Hydrological Data – Mapping the Socio- Economic Data – Cartographic Appreciation.

UNIT V: Map Projections – Fundamentals – Classification – Major Types of Map Projections.

BOOKS FOR REFERENCES:

1. Ahmad Khan. M. Z –Text Book of Practical Geography – Concept Publishing Company – New Delhi – 2001
2. Ishtiaq M. – A text book of Practical Geography – Heritage Publisher – New Delhi - 1989.
3. Jayachandran.S – Practical geography – Tamilnadu Book Society, Chennai, 1963 (Tamil version).
4. Misra R.P. and Ramesh. A- Fundamentals of Cartography – Concept Publishing Company – New Delhi - 2002.

5. Robinson.A.H. Elements of Cartography. John Wiley &Sons.U.S.A - 1995.
6. Monkhouse F.J .&Wilkinson.H.R–Maps and Diagrams – Methuen London - 1994.
7. Singh R.L; Elements of Practical Geography Kalyani Puplication. New Delhi.1979
8. Singh and Kanunja – Map work and Practical Geography – Central Book Depot – Allahabad.1966
9. SethuRakkayee .S – An Introduction to Cartography – Shanmugam Pathipagam, madurai-7,2005(Tamil copy).

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I - Meaning and Nature of Cartography			
	Meaning & Nature	2	Chalk and Talk & Maps
	Cartography as a Science	5	Maps and Models
	Compilation & Generalization	5	Maps, Diagrams and Models
UNIT II- Map Design and Layout			
	Lettering and Toponomy	3	Atlas , Models and Maps
	Tools and Techniques for Drawing	3	Explanation and demonstration with Models and Maps
	Construction and Reproduction	6	Lecture & Atlas, Models and Maps with PPT
UNIT III -Symbolizing and Processing Data			
	Diagrams on Maps	6	Demonstrate with Atlas and Maps
	Qualitative and Quantitative maps	6	PPT – Thematic Atlas and Maps
UNIT IV-Mapping			
	Geologic Structure	4	Explanations with Models
	Relief and Terrain Data & Socio Economic	4	Chalk & Talk, Survey of India topographical maps & Atlas
	Cartographic Appreciation	4	Survey of India topographical maps & Atlas
UNIT V- Map Projections			
	General Principles	3	Demonstrate with the skeleton Globe and Atlas
	Classification	5	Atlas and Maps
	World Projections	4	Demonstrate with the skeleton Globe, Atlas , Models and Maps

Course Out comes (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	PS O7	
CO1	4	4	4	4	4	4	4	4	4	4	3	4	4	3	3.857
CO2	4	4	4	4	4	4	4	4	4	4	4	4	4	3	3.929
CO3	4	4	4	4	4	4	4	4	4	4	4	4	3	3	3.857
CO4	3	3	3	4	3	3	3	3	3	3	3	4	3	3	3.143
CO5	3	4	4	4	3	4	3	3	3	3	3	3	3	3	3.286
Mean Overall Score															3.614

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 = $\frac{\text{Total of Value}}{\text{Total No. of Pos \& PSOs}}$

Mean Overall Score of COs = $\frac{\text{Total of Mean Score}}{\text{Total No. of COs}}$

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

Course Designer: Dr.J.Rosy Grace Angelene.

Programme : B.SC GEOGRAPHY **Part III: Course Type -VIII**
Semester : IV **Hours : 3 P/W 45 Hrs P/S**
Sub. Code : U22CG8P **Credits : 3**

Title of the Paper**: SURVEYING**

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

PREAMBLE: The paper demonstrate the construction , understand and practice different survey methods.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: apply the knowledge to conduct the two methods of chain survey	1	12
CO2: Construct and Analyse the prismatic compass and its applications	2	11
CO3: understand about plane table survey and constructions of its types.	3	11
CO4: Understand to measure the height .of the object through (Indian clinometers), leveling (dumpy level)	4	11

SYLLABUS

UNIT I: Chain Survey ; Triangulation ,Open and Closed Traverse.

UNIT II; Prismatic Compass Open and Closed Traverse - Bowdich's Method.

UNIT III: Plane Table Survey Open and Closed Traverse, Correction of Closing Errors.

UNIT IV: Indian Clinometer Accessible and Inaccessible Method - Dumpy Level.

BOOKS FOR REFERENCES

1. Gopal singh, (1996). Map work and practical geography, Vikas Publishing House Pvt.Ltd.,
2. Khullar, (1997). Practical Geography, Educational Publishers, New Delhi.
3. Monkhouse, F.J. and Wilkinson, H.R., (1989). Maps and Diagrams, B.I.Publications, New Delhi.
4. Pijushkanti Saha and Partha Basu, (2010). Advanced Practical Geography, Books and Allied (P) Ltd, Kolkata.
5. Singh, R. L., (2005). Elements of Practical Geography, Kalyani Publishers, New Delhi.
6. Zulfequar Ahmad Khan, M. D., (1998). Text Book of Practical Geography, Concept Publishing Company, New Delhi.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Chain survey – open traverse	6	Chalk And Talk ,Demonstration and using instruments(computer)
	Chain survey – closed traverse	6	Chalk And Talk ,Demonstration and using instruments
UNIT II			
	Prismatic compass – open traverse		Chalk And Talk ,Demonstration and using instruments
	Prismatic compass – closed traverse	3	Chalk And Talk ,Demonstration and using instruments
	Appling Bowdich method	3	Chalk And Talk ,Demonstration and using instruments
UNIT III			
	Plane table survey – open traverse	5	Chalk And Talk ,Demonstration and using instruments
	Plane table survey – closed traverse	6	Chalk And Talk ,Demonstration and using instruments
UNIT IV			
	Indian clinometer accessible and inaccessible method	5	Chalk And Talk ,Demonstration and using instruments , Using climatic charts and weather reports.
	Dumpy level	6	Chalk And Talk ,Demonstration and using instruments

Course Out comes (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	PS O1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PS O7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.75

Result: The Score for this Course is 4.75 (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 = $\frac{\text{Total of Value}}{\text{Total No. of Pos \& PSOs}}$

Mean Overall Score of COs = $\frac{\text{Total of Mean Score}}{\text{Total No. of COs}}$

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

Course Designer: Mrs.M.Sirasunisa Begum

Programme : B.SC GEOGRAPHY **Part III: Course Type-AC-V**
Semester : III & IV **Hours : 1+ 1 P/W - 15+15= 30 Hrs P/S**
Sub. Code : U22AGGP **Credits : 2**

Title of the Paper**: STATISTICAL DIAGRAMES AND MAPS**

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

PREAMBLE: This practical course explains the method of representation of statistical data in the form diagrams and maps

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the method of representation of statistical data in the form of diagrams.	1	3 + 3
CO2: Acquire more knowledge about the differentiation of two dimension and three dimension graphs and diagrams	2	3+3
CO3: Develop the mapping skill about the representation of the diagrams in the maps	3	4+4
CO4: Familiar with the cartographic skill through the preparation of diagrams and maps.	4	5+5

SYLLABUS

UNIT - I: Graphs- Line graph – Multiple graph – Band graph

UNIT– II: One dimensionall - Bar Diagram : Simple Bar – vertical Bar – Horizontal Bar and Compound Bar – Compared Bar – Multiple Bar- Pyramidal Bar.

UNIT– III: Two dimensional diagram – squire – circle and pie diagram

UNIT– IV: Three dimensional diagram – cube – spherical diagram. Locational diagram maps : Line – Bar – Circle and Pie diagram maps.

BOOKS FOR REFERENCE

1. Ahmad khan. M.Z- Text Book of practical Geography – Concept Publishing company ,New Delhi – 1988.
2. Ishtiaq M. – A text Book of practical Geography – Heritage Publishers - New Delhi - 2001.
3. Jayachandran.S – Practical geography – Tamilnadu Book Society, Chennai, 1963 (Tamil copy).
4. Misra R.P. and Ramesh. A – Fundamentals of Cartography – Concept Publishing company – New Delhi – 2002.
5. Monkhouse F.J. & Wilkinson H.R - Maps and Diagrams- Methuen, London - 1994.
6. Dr. Pijushkanti Saha & Dr. ParthBasu - Advanced Practical Geography – A Laboratory Manual - Books&Allied Pvt.Ltd,Kolkatta - 2004.
7. Singh and Kanunja - Map work and Practical Geography –Central Book Depot –Allahabad – 1979
8. Singh R.L - Elements of Practical Geography – Kalyani PublisheNew Delhi - 1979.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Statistical method: Line graph-	1+1	Chalk And Talk ,Demonstration and using instruments(computer)
	Multiple graph	1+1	Chalk And Talk ,Demonstration and using instruments (computer)
	Band graph	1+1	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT II			
	One dimensionall - Bar Diagram : Simple Bar – vertical Bar – Horizontal	2+2	Chalk And Talk ,Demonstration and using instruments(computer)
	Bar Compound Bar – Compared Bar – Multiple Bar- Pyramidal Bar.	1+1	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT III			
	Two dimensional diagram – squire – circle	2+2	Chalk And Talk ,Demonstration and using instruments(computer)
	pie diagram	2+2	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT IV			
	Three dimensional diagram – cube – spherical diagram. Locational maps	3+3	Chalk And Talk ,Demonstration and using instruments(computer)
	Line – Bar – Circle and Pie diagram maps	2+2	Chalk And Talk ,Demonstration and using instruments(computer)

Course Out comes (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	PS O1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PS O7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.75

Result: The Score for this Course is 4.75 (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 = $\frac{\text{Total of Value}}{\text{Total No. of Pos \& PSOs}}$

Mean Overall Score of COs = $\frac{\text{Total of Mean Score}}{\text{Total No. of COs}}$

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

Course Designer:Mrs.N.Pothumani

Programme : B.SC GEOGRAPHY **Part IV: course type: NMEC2**
Semester : IV **Hours : 2 P/W 30 Hrs P/S**
Sub. Code : U22NMG2 **Credits : 2**

Title of the Paper**: SOCIAL – CULTURAL GEOGRAPHY**

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

PREAMBLE: It is Brach of Human Geography and it explains the social and cultural aspects of the world.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: To understand the nature and scope of social geography	1	6
CO2: To know the structure and process of the space and society	2	6
CO3: To explain the knowledge of socio – cultural regions of India	3	6
CO4: To understand the Religion and caste system of India	4	6
CO5: To know the classification of Indian language – language concentration and diversification	5	6

SYLLABUS

UNIT I:. Nature – Scope and Content of Social and Cultural Geography.

UNIT II:. Social space and cultural landscape – Elements of Society – Elements of Culture.

UNIT III:. Characteristics and Classification of Races - Cultural realms of the world.

UNIT IV :Caste and Religion – religious groups – Caste system of India.

UNIT V:. Geography of Language – Classification of Indian language – Language Concentration and diversification.

BOOKS FOR REFERENCES:

1. Aijazuddin Ahmad (2012), Social Geography of India –Concept Publishing Company Pvt Ltd, New Delhi.
2. Aijizuddin Ahmed (2007) Social Geography Rawat Publication Jaipur.
3. David Atkinson (2007) Cultural Geography Rawat Publication Jaipur.
4. G.s. Mohanty (2005) Social and Cultural Geography- Isha books.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Nature and scope of social geography	3	chalk and talk and usage of maps and atlas and PPT lecture
	Nature and scope of cultural geography	3	chalk and talk and usage of maps and atlas and PPT lecture
UNIT II			
	Social space and cultural landscape	3	chalk and talk and usage of maps and Atlas
	Elements of society and elements of culture	3	chalk and talk and usage of maps and atlas
UNIT III			
	Characteristics and classification of races	3	chalk and talk and usage of maps and atlas and PPT lecture
	Cultural realms of the world	3	chalk and talk and usage of maps and atlas and PPT lecture
UNIT IV			
	Religious groups of India	3	chalk and talk and usage of maps and atlas and PPT lecture
	Caste system of India	3	chalk and talk and usage of maps and atlas and PPT lecture
UNIT V			
	Classification of Indian language	3	Group discussion, Census Report, Maps and Atlas and PPT lecture
	Language concentration and diversification	3	Group discussion, Census Report, Maps and Atlas and PPT lecture

Course Out comes (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	PS O7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.6

Result: The Score for this Course is 4.6 (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: Mrs.M.Sirasunisa Begum

Programme : B.SC GEOGRAPHY **Part IV: Course Type: SEC-I**
Semester : IV **Hours : 2 P/W 30 Hrs P/S**
Sub. Code : U22S3EG1 **Credits : 2**

Title of the Paper**: POPULATION DATA ANALYSIS**

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

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

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: To understand the Sources of Population data	1	6
CO2: To know the Dynamics of Population	2	6
CO3: To explain the knowledge Major consequences of migrations - Laws of Migration - Policies on migration	3	6
CO4: To understand the Population composition - Sex composition Gender ,Age structure ,Literacy, Determinants.	4	6
CO5: To know the Occupational composition of population	5	6

SYLLABUS

UNIT 1: Sources of Population data - World population distribution and Density – Determinants of distribution and density.

UNIT II: Dynamics of Population - Fertility - Measures and determinants of Fertility - Mortality - Measures and determinants of mortality - World population Growth.

UNIT III: Migration- Types - Determinants - Major consequences of migrations - Laws of Migration - Policies on migration

UNIT IV: Population composition - Sex composition - Gender - Age structure –Literacy – Determinants.

UNIT V: Occupational composition of population - Determinants and world pattern - Optimum Population, over population and under population.

BOOKS FOR REFERENCES:

1. The End of World Population Growth in the 21sst century: New Challenges for Human Capital formation and Sustainable Development - Lutz, W. Sanderso, w.e.and Scherbov, S. - Earthscan, London 2005.
2. Geography and Population: Approach and Applications - Clarke John, I (ed.),Pergamon Press Ltd. Oxford, 1984
3. Population Geography - Clarke, J .1., Pergamon Press Ltd., Oxford, 1972
4. Population Geogjraphy: A Reader, Demko, G.J., Rose, H.M. and Schnell, G.A., McGraw HilllBook Col., New York, 1970
5. Principles of Demography, Bogue Donald, J., John Wiley & Sone, New York, 1969 Geography of Population: World Patterns - Trewartha, G.T., John Wiley & Sons, New York, 1969
6. Population Geography, Wilson, M.G.A., Nelson, London, 1968.
7. Geography of Population, Beaujeu - Gamier, Longman Group Ltd, London, 1966

Web References

8. https://www.thoughtco.com/population-geography-overview-1435468
9. https://projects.ncsu.edu/cals/course/ent425/library/tutorials/ecology/popn_dyn.html
10. http://www.economicsdiscussion.net/theory-of-population/top-3-theories-ofpopulation-with-diagram/18461

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Sources of Population data	3	chalk and talk and usage of maps and atlas and PPT lecture
	World population distribution and Density	3	chalk and talk and usage of maps and atlas and PPT lecture
UNIT II			
	Dynamics of Population	3	chalk and talk and usage of maps and Atlas
	Fertility - Mortality	3	chalk and talk and usage of maps and atlas
UNIT III			
	Migration	3	chalk and talk and usage of maps and atlas and PPT lecture
	Policies and Laws of Migration	3	chalk and talk and usage of maps and atlas and PPT lecture
UNIT IV			
	Population composition	3	chalk and talk and usage of maps and atlas and PPT lecture
	Literacy	3	chalk and talk and usage of maps and atlas and PPT lecture
UNIT V			
	Occupational composition of population	3	Group discussion, Census Report, Maps and Atlas and PPT lecture
	Determinants and world pattern	3	Group discussion, Census Report, Maps and Atlas and PPT lecture

Course Out comes (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	PS O7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.6

Result: The Score for this Course is 4.6 (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: Dr.A.Gandhimathi

Programme : B.SC GEOGRAPHY **Part III: Course Type: IX**
Semester : V **Hours : 5 P/W 75 Hrs P/S**
Sub. Code : U22CG9 **Credits :5**

Title of the Paper**: WORLD REGIONAL GEOGRAPHY**

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

PREAMBLE: The explains the broad regional divisions of the world in a changing world system.To appraise the students about resources: their potentials: utilization and suitability aspects. To provide for an understanding and appreciation of the mutual dependence and resource sharing.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: know about different types of Regions – understand the specific characteristics about vegetation, animal life of world regions	1	15
UNIT 2 CO2: Acquire knowledge about Tropical Regions – Monsoon type – Sudan type - Sahara type – Caribbean type	2	15
UNIT 3 CO3: Analyze the Warm Temperate Regions- Mediterranean type- China type – Tropical Desert type.	3	15
UNIT 4 CO4: Understand the Cool Temperate Regions- British type, Siberian type and Laurentian type.	4	15
UNIT 5 CO5: Explain about the Polar Regions – high land - Tundra type	5	15

SYLLABUS

UNIT –I: Definition of Region – Physical Elements – Space Relationships -Weather and Climate -Landforms – Hydrology – Natural Vegetation – Forest , Grasslands , Desert – The associated Animal Life – soil - Population - Economic Activities - Cultural Features .

UNIT II: World Regions: Major Climatic Regions of the World – Location and Characteristics – Equatorial Regions, Highland and Lowland Regions – Tropical Regions; Monsoons, Tropical Grassland and Tropical Deserts.

UNIT III: Warm Temperate Regions – Mediterranean – Temperate Grassland , China Type.

UNIT IV: Cool Temperate Regions: British Type or Marine West Coasts , Siberian Type and Laurentian Type.

UNIT V: Polar Regions: Highland or Ice Cap Type , Lowland or Tundra Type.

BOOKS FOR REFERENCES

1. Gopal singh, (1996). Map work and practical geography, Vikas Publishing House Pvt.Ltd.,
2. Khullar, (1997). Practical Geography, Educational Publishers, New Delhi.
3. Monkhouse, F.J. and Wilkinson, H.R., (1989). Maps and Diagrams, B.I.Publications, New Delhi.
4. Pijushkanti Saha and Partha Basu, (2010). Advanced Practical Geography, Books and Allied (P) Ltd, Kolkata.
5. Singh, R. L., (2005). Elements of Practical Geography, Kalyani Publishers, New Delhi.
6. Zulfequar Ahmad Khan, M. D., (1998). Text Book of Practical Geography, Concept Publishing Company, New Delhi.

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT I			
	Definition of regions and physical elements	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Weather and climate – landforms – hydrology – natural vegetations	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Animal life- soil – economic and cultural features of world regions	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
UNIT II			
	Equatorial regions, Highland and lowland regions	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Tropical regions – Monsoonal type	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Tropical grassland and Tropical deserts	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
UNIT III			
	Mediterranean regions	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Temperate grass land	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	China type	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
UNIT IV			
	British type or Marine type	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Siberian type	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
	Laurentian type	5	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture
UNIT V			
	Highland or ice cape type	8	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture and VLC
	Tundra type	7	Chalk and talk , Group discussion, Maps ,Atlas and PPT lecture and VLC

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	3	5	5	4	3	3	3	4	3	3	3	4	5	3	3.6
CO2	5	4	3	3	3	4	5	5	4	3	3	3	4	3	3.7
CO3	3	5	4	3	4	3	4	4	3	5	5	4	3	3	3.8
CO4	4	5	5	4	3	3	3	3	4	3	4	5	4	3	3.8
CO5	5	3	3	3	4	3	4	4	3	4	3	4	5	3	3.6
Mean Overall Score															3.7

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: Mrs.M.Sirasunisa Begum

Programme : B.Sc. Geography **Part III:**

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

Sub. Code : G62 **Credits: 5**

Title of the Paper**: GEOGRAPHY OF INDIA**

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

PREAMBLE: The paper Geography of India is regional study explains the Physical, socio-economic development and distribution of resources

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
UNIT 1 CO1: Understand the location Physiography, Drainage, Climate, and Vegetation of India	1	15
UNIT 2 CO2: Know the silent feature, problems and prospects of Agriculture.	2	15
UNIT 3 CO3: Know about the power resources in India.	3	15
UNIT 4 CO4: Understand the nature of industries and study the spatial Distribution of manufacturing industries in India	4	15
UNIT 5 CO5: Understand population Composition in India	5	15

SYLLABUS

UNIT – I: Geographical setting - Major Physiographic Divisions - Drainage- Perennial and non-perennial rivers in India – Climate - Soil and Natural Vegetation.

UNIT – II: Agriculture: Irrigation – Types and distribution – Major crops and their distribution: Rice, Wheat, Sugarcane, Cotton, Groundnut - Plantation Crops: Tea and Coffee - Problems of Indian Agriculture.

UNIT – III: Minerals: Iron, Copper, Mica, Manganese, Bauxite, and Atomic minerals - Power Resources: Coal, Petroleum, Natural gas, Hydro Power – Multipurpose river projects - Atomic power stations.

UNIT – IV: Industries: Distribution and production of major industries: Cotton and textiles, Iron and Steel, Sugar, Cement, Chemical and Automobile Industries.

UNIT – V: Population, Transport Types and Trade: Population – Growth, density, distribution and problems. Transport: Land, water and air - Foreign trade of India

BOOKS FOR REFERENCE

1. Gopal Singh, (1970), A Geography of India, Atnaram & sons, New Delhi.
2. Khullar, D. R., (2010), India – A Comprehensive Geography, Kalyani Publishers, New Delhi.
3. Krishnan, M.S. (1982), Geology of India and Burma, CBS Publishers, New Delhi.
4. Majid Hussain (2008), Geography of India, Tata McGraw Hill Publishing company Ltd., New Delhi.
5. Mathur, S.M. (1982), Physical Geology of India, National Book Trust, India, New Delhi.
6. Pal, Saroj K. (2003), Physical Geography of India – A study in Regional Earth Sciences, Orient Longman Pvt. Ltd. Kolkata.
7. Sharma, T.C., (2003), India – An Economic & Commercial Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
8. Singh, R.L., (1977), India - A Regional Geography, NGSI, Varanasi

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Location, Relief, , Soil	5	Maps, Atlas , VLC and PPT
	Drainage, Climate	5	Maps, Atlas , VLC and PPT
	Natural Vegetation - Unity in Diversity	5	Maps, Atlas , VLC and PPT
UNIT 11			
	Agriculture: Irrigation Types- Multipurpose Projects	5	Maps, Atlas , VLC and PPT
	Major Crops – Cultivatio and Distribution of Rice , Wheat, Cotton,	5	Maps, Atlas , VLC and PPT
	Sugarcane, Tea, Oilseeds & Tobacco.	5	Maps, Atlas , VLC and PPT
UNIT III			
	Power Resources – Coal, Petroleum, Natural Gas -	5	Maps, Atlas , VLC and PPT
	Hydro Electric Power, Atomic power –	4	Maps, Atlas , VLC and PPT
	Minerals : Iron, Manganese, Bauxite, Copper & Mica.	6	Maps, Atlas , VLC and PPT
UNIT IV			
	Industries – Iron and Steel,	5	Maps, Atlas , VLC and PPT
	Automobiles, Ship Building,	4	Maps, Atlas , VLC and PPT
	Cotton Textiles & Jute	6	Maps, Atlas , VLC and PPT
UNIT V			
	Population –Growth – Distribution – Density- Population Problems -	6	Maps, Atlas , Census Report VLC and PPT
	Transport: Land, Water	6	Maps, Atlas , VLC and PPT
	Air - Trade .	3	Maps, Atlas , VLC and PPT

Course Out comes (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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score															4.2

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: Mrs.D.Rukmanidevi.

Programme : B.SC GEOGRAPHY **Part III: Course Type :- XI**

Semester : V **Hours : 5 P/W 75 Hrs P/S**
Sub. Code : U22CG11 **Credits :5**

Title of the Paper**: HUMAN GEOGRAPHY**

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

PREAMBLE: Orderly description and interpretation of morphology, functions and spatial organization of human settlements on the earth surface

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Nature and scope : understand the branches of Human Geography	1	15
CO2: Know the Concepts of Determinism, Possiblism and Probablism.	2	15
CO3: Able to analyze Levels of Culture – Primitive to modern – World cultural Regions.	3	15
CO4: Explain Language, Religion , Race and Distribution	4	15
CO5:Understand the demographic pattern, problems and related theories.	5	15

SYLLABUS

UNIT-I: Definition , Scope and Content –Branches of Human Geography – Inter-disciplinary Approach: systematic-behavioral approach

UNIT-II: Different Views – Concepts of Determinism , Possiblism and Probablism.

UNIT-III: Levels of Culture – Primitive to modern – World cultural Regions.

UNIT-IV: Language and Religion – language groups - Race - Criteria for Classification- Major types – Distribution.

UNIT-V: Population – Spatial Pattern of distribution – Growth, Problems of over Population – Malthusian – Optimum theory of Population – Migration – Causes – Types – Problems.

BOOKS FOR REFERENCE

1. Brock – A Geography of Man Kind – John Wiley, & Sons, New York - 1994.
2. David M. Smith – Human Geography – Edward Arnold (Publishers) Ltd, London -1977.
3. Deblij – Human Geography – John Wiley, & Sons New York – 1996.
4. Garnier – Geography of Population – Longmans Publications, London – 1990.
5. Majid Husain – Cultural Geography – Anmol publication Pvt. Ltd., New Delhi – 1994.
6. Majid Husain – Human Geography – Rawath Publications, Jaipur - 2003.
7. Money D.C. – Introduction to Human Geography – University Tutorial Press Ltd., London – 1972.
8. Specer K. Thomas – Cultural Geography – Anmol publication Pvt., Ltd., New Delhi 1994.

UNITS	TOPIC	Hrs/ WEEK	MODE OF TEACHING
UNIT I			
	Scope and content Definition	5	Chalk and talk
	Branches	5	PPT lecture
	Approachs	5	PPT Lecture and Test
UNIT II			
	Views – Concepts of Determinism	5	PPT lecture
	Possiblism	5	PPT lecture
	Probablism.	5	PPT Lecture and Test
UNIT III			
	Levels of Culture – Primitive to modern	5	Chalk and talk -video
	World cultural	5	video lecture
	cultural Regions	5	PPT lecture
UNIT IV			
	Language and Religion – language - religion	5	video lecture
	Classification- Race	5	video lecture
	Types – Distribution	5	Chalk And Talk- Test
UNIT V			
	Population –distribution – Growth, and Problems–	5	Chalk And Talk and PPT lecture
	Theory	5	Chalk And Talk
	Migration	5	Video Lecture And Test

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	3	3	3	5	4	3	3	3	3	4	3	3	3	3	3.3
CO2	3	5	3	3	3	4	3	4	3	3	4	3	3	3	3.4
CO3	3	3	4	5	4	3	5	3	4	3	3	3	3	4	3.6
CO4	3	3	5	4	3	4	3	4	3	5	5	4	3	3	3.7
CO5	3	4	3	3	3	3	5	3	3	4	3	3	4	3	3.4
Mean Overall Score															3.5

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: Dr.J.Rosy Grace Angelene

Programme : B.SC GEOGRAPHY **Part III: Course Type-XII**
Semester : V **Hours : 6 P/W 90 Hrs P/S**
Sub. Code : U22CG12P **Credits : 5**

Title of the Paper**: THEMATIC DATA ANALYSIS AND MAP INTREPRETATION**

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

PREAMBLE:

The practical paper explains the representation of Socio-Economic Data with graph and diagrams and methods of SOI map , OS sheets map interpretation.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the Statistical method: One dimensional diagrams, Two dimensional diagrams, Three dimensional diagrams, Pyramidal diagrams- pictorial- flow, line pie diagrams with computer assistance	1	20
CO2: Acquire more knowledge about the drawing of isopleths- choropleth- chorochromatic and choroschematic maps with computer assistance	2	20
CO3: Familiar with the cartographic skill through the Methodological signs and symbols of SOI maps.	3	25
CO4: develop the interpretation skills of SOI maps and OS sheets.	4	25

SYLLABUS

UNIT - I: Statistical method: One dimensional diagrams- Bar- Two dimensional diagrams- Rectangular, square and circle- Three dimensional diagrams – cubes and sphere – with computer assistance. Pyramidal diagrams- pictorial- flow, line , pie diagrams with computer assistance

UNIT – II: Method of representing distribution of data – drawing of isopleths- choropleth- chorochromatic and choroschematic maps.

UNIT – III: Representation of Relief on a Block Diagram Topographic Maps: Conventional signs and symbols of SOI maps

UNIT- IV: Cartographic appreciation and comparison of SOI, OS and US sheets Interpretation of SOI maps.

BOOKS FOR REFERENCES

1. Gopal singh, (1996). Map work and practical geography, Vikas Publishing House Pvt.Ltd.,
2. Khullar, (1997). Practical Geography, Educational Publishers, New Delhi.
3. Monkhouse, F.J. and Wilkinson, H.R., (1989). Maps and Diagrams, B.I.Publications, NewDelhi.
4. Pijushkanti Saha and Partha Basu, (2010). Advanced Practical Geography, Books andAllied (P) Ltd, Kolkata.
5. Singh, R. L., (2005). Elements of Practical Geography, Kalyani Publishers, New Delhi.
6. Zulfequar Ahmad Khan, M. D., (1998). Text Book of Practical Geography, ConceptPublishing Company, New Delhi.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I : Statistical Method			
	Statistical method: One dimensional diagrams- Bar-	5	Chalk And Talk ,Demonstration and using instruments(computer)
	Two dimensional diagrams- Rectangular, square and circle	5	Chalk And Talk ,Demonstration and using instruments (computer)
	Three dimensional diagrams – cubes and sphere – Pyramidal diagrams- pictorial-flow, line , pie diagrams with computer assistance	10	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT II: Method of representing distribution of data			
	drawing of isopleths	5	Chalk And Talk ,Demonstration and using instruments(computer)
	chorochromatic and choroschematic maps.	10	Chalk And Talk ,Demonstration and using instruments(computer)
	drawing of isopleths with computer assistance	5	Chalk And Talk ,Demonstration and using instruments(computer)
UNIT III : Representation of Relief and symbols			
	Representation of Relief on a Block Diagram Topographic Maps	15	Using topographical sheet , Demonstration and using chats
	Conventional signs and symbols of SOI maps	10	Demonstration and using maps
UNIT IV : Map comparison and interpretation			
	Cartographic appreciation and comparison of SOI	10	Using SOI and US maps
	OS and US sheets Interpretation of SOI maps.	15	Using SOI and US maps

Course Out comes (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	PS O7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.75

Result: The Score for this Course is 4.75 (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: Dr. S.Usha Buvaneswari

Programme : B.Sc. Geography **Part III:Course Type: DSEC**

Semester : V **Hours : 4 P/W 60 Hrs P/S**

Sub. Code : U22DSG1A **Credits: 4**

Title of the Paper**: GEOGRAPHY OF RESOURCES**

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

PREAMBLE: The paper explain the changes that occur in world resources and the meaning, use, distribution, and importance of **resources**. The geographically informed student must understand that a "**resource**" is a cultural concept. A **resource** is any physical material constituting part of Earth that people need and value.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Know the difference of Renewable & Non- Renewable resources – and its Significance.	1	12
CO2: Analyse the population Distribution and Density and understand Problems of Population.	2	12
CO3: Understand the types of Fishing and distribution and identify the Forests and its conservation to know about the Cattle and Sheep rearing	3	12
CO4: Know about the Agriculture – Type and Major crops	4	12
CO5: identify the Mineral Resources and Energy Resource. Know about the various industries and its Distribution.	5	12

SYLLABUS

UNIT I: Resources : Definition – Types – Renewable & Non- Renewable – Significance of Resources. Land as a Resource – Land Utilization and Conservation.

UNIT II: Human Resource –Distribution , Density and Growth – Problems of Population .

UNIT III: Fisheries –types , factors affecting fishing - Major Fishing grounds of the world – Forests – Types, Distribution , Uses and Conservation - Cattle and Sheep rearing.

UNIT IV: Agriculture – Types- Shifting, Sedendary -Intensive and Extensive – Mixed farming – Plantation Agriculture - Major crops – Rice , Wheat, Cotton, Tea and Coffee - Production and Distribution

UNIT V : Mineral Resources – Iron Ore, Mica and Bauxite – Energy Resources-Coal, Petroleum Natural Gas, solar, wind and tidal energy - Major Manufacturing Industries– Iron and Steel, Ship building and Cotton Textile Industries- Production and Distribution.

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(1999)-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. Oliver. John E, and John J Hiddore,(2003) Climatology - An Atmospheric Science - Pearson Education (Singapore) PVT.Ltd, New Delhi - 2003.
8. Siddhartha.K . Atmosphere Weather And Climate Kisalaya Publication Pvt . Ltd New Delhi

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT I			
	Resources : Definition – Types – Renewable & Non- Renewable–	6	Chalk and talk , Maps, Atlas , VLC and PPT
	Significance of Resources.	2	Chalk and talk , Maps, Atlas , VLC and PPT
	Land as a Resource – Land Utilization and Conservation.	4	Chalk and talk , Maps, Atlas , VLC and PPT
UNIT II			
	Human Resource –Distribution ,	4	Maps, Atlas , VLC and PPT
	Density and Growth –	5	Maps, Atlas , VLC and PPT
	Problems of Population	3	Maps, Atlas , VLC and PPT
UNIT III			
	Fisheries –types , factors affecting fishing - Major Fishing grounds of the world	5	Chalk and talk , Maps, Atlas , VLC and PPT
	Forests – Types, Distribution , Uses and Conservation	4	Chalk and talk , Maps, Atlas , VLC and PPT
	Cattle and Sheep rearing	3	Chalk and talk , Maps, Atlas , VLC and PPT
UNIT IV			
	Agriculture – Types-	5	Maps, Atlas , VLC and PPT
	Agriculture - Major crops – Rice , Wheat, Cotton,	4	Maps, Atlas , VLC and PPT
	Tea and Coffee - Production and Distribution	3	Maps, Atlas , VLC and PPT
UNIT V			
	Mineral Resources – Iron Ore, Mica and Bauxite	3	Chalk and talk, Maps, Atlas , Census Report VLC and PPT
	– Energy Resources-Coal, Petroleum Natural Gas, solar, wind and tidal energy -	4	Chalk and talk ,Maps, Atlas , VLC and PPT
	Manufacturing Industries– Iron and Steel, Ship building Cotton Textile Industries- Production and Distribution	5	Chalk and talk ,Maps, Atlas , VLC and PPT

Course Out comes (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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score															4.2

Result: The Score for this Course is 4.2 (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 Mean Score / Total No. of COs		

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

Course Designer: Dr.J.Rosy Grace Angelene

Programme : B.Sc GEOGRAPHY **Part III: DSEC**
Semester : V **Hours : 5 P/W 75 Hrs P/S**
Sub. Code : U22DSG1B **Credits :5**

Title of the Paper**: AGRICULTURAL GEOGRAPHY**

Pedagogy	Hours	Lecture	Peer Teaching	GD/VIDOES/TUTORIAL	ICT
	5	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. Agricultural geography seeks to describe and explain spatial variations in agricultural activity over the earth's surface.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: understand nature, scope and significance of agricultural geography	1	15
CO2: acquire knowledge about agricultural determinants modernization of agriculture- green revolution	2	15
CO3: know the significance von thunen's theory and land use and land capability classification	3	15
CO4: evaluate the agricultural productivity	4	15
CO5: understand the regionalization of agriculture	5	15

SYLLABUS

UNIT I: Nature scope and significance of Agricultural Geography – Approaches to the study of Agricultural geography – Elements of agriculture.

UNIT II: Determinants of agricultural land use – Physical, economic, social, institutional and technological determinants.

UNIT III: Von Thunen's theory of agricultural location and its recent modifications – Land use – Types – Land use surveys – Land capability classification.

UNIT IV: Measurement of agricultural productivity – Crop combination – Delimitation of crop combination regions – Weaver – Crop diversification regions.

UNIT V: Agricultural regions of the world – A review of Whittlessey's agricultural classification – Agricultural regions of India – Characteristics – Agricultural Problems.

BOOKS FOR REFERENCES

1. Basu, D.N., and Guha, G.S., (1996). Agro-Climatic Regional Planning in India (Vol. I & II). Concept Publication, New Delhi.

2. Grigg, D.B. (1984). Introduction to Agricultural Geography. Hutchinson, London.

3. Shafi, M., (2006). Agricultural Geography. Doring Kindersley India Pvt. Ltd., New Delhi.

4. Singh, J. and Dhillon, S.S. (1984). Agricultural Geography. Tata McGraw Hill, New Delhi.

5. Hussain, M. (1979). Agricultural Geography. Inter India Publications, New Delhi.

6. Morgan, W.B. and Munton, R.J.C. (1971). Agricultural Geography. Methuen & Co., London.

7. Singh, J. and Dhillon, S.S. (1995). Agricultural Geography. Tata McGraw Hill Pub. Company Ltd., New Delhi.

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT I			
	Nature, scope	5	Chalk and talk and PPT
	Significance and approaches	5	Chalk and talk and PPT
	Elements of agricultural geography	5	Chalk and talk and PPT
UNIT II			
	Physical ,economical land use determinants	5	Chalk and talk and PPT
	Social and institutional determinants	5	Chalk and talk and PPT
	Technological determinants	5	Chalk and talk and PPT
UNIT III			
	Von thunen's Theory	5	Chalk and talk and PPT
	Agricultural Land use	5	Chalk and talk and PPT
	land capability and classification	5	
UNIT IV			
	Agricultural productivity determinants	5	Chalk and talk and PPT
	Crop combination	5	Chalk and talk and PPT
	Crop diversification regions	5	Chalk and talk and PPT
UNIT V			
	Agricultural regions of the world	5	Chalk and talk and PPT
	Whittlessey's agricultural classification	5	Chalk and talk and PPT
	Regions of india – characteristics - agricultural problems	5	Chalk and talk and PPT

Course out comes (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: Mrs.M.Sirasunisa Begum .

Programme : B.Sc GEOGRAPHY **Part :III Course Type: SEC - II**
Semester : V **Hours : 2 P/W 30Hrs P/S**
Sub. Code : U22SEG2 **Credits : 2**

Title of the Paper**: PRINCIPLES OF GIS AND GNSS**

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

PREAMBLE: The paper emphasize the knowledge about Geographical Information System & GNSS –Elements of GIS and Computer based tool for mapping and analyzing feature events on earth.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: To know about the Concepts: Definition and History of GIS	1	6
CO2: Learn and practice the Raster and Vector Data Analysis	2	6
CO3: Examine the Vector Data, Spatial Data Accuracy, Vector data Sources.	3	6
CO4: Identify the Historical Development of GPS System.	4	6
CO5: To analyze the Integration techniques - Hardware and Software Platforms	5	6

SYLLABUS

UNIT I : Basic Concepts: Definition and History of GIS – Components of GIS – Data Structure and Formats – Spatial Data models: Raster and Vector – Database Design – Linking Spatial and Non Spatial Data.

UNIT II: Raster and Vector Data Analysis :Integration of Raster and Vector Data, Raster data – Types, Data Structure, Data Compression, Data Files, Data Conversion.

UNIT III: Slope Aspects, Overlay Operations and Statistical Analysis. Vector Data – Topological and Non Topological Vector Data, Map Scale, Spatial Resolution, Spatial Data Accuracy, Vector data Sources.

UNIT IV :Introduction: Historical Development – GPS System overview – Space Segment – Control Segment – User Segment – Recent Trends – Working Principles of GPS: Satellite Ranging – Resection; error sources – Atmospheric and Ionospheric errors.

UNIT V :GNSS AND GIS Integration: Integration techniques – Data Focused Integration, Position focused and technology focused integration – Hardware and Software Platforms – GPS, GIS.

BOOKS FOR REFERENCES:

1. Burrough, P.A. (1986). Principles of Geographical Information System for Land Resources Assessment. Clarendon Press, Oxford.
2. Heywood, I., Cornelius, S. and Carver, S. (1988). An Introduction to Geographical Information Systems. Addison Wiley Longmont, New York.
3. Burrough, P.A. and McDonnell, R. (2000). Principles of Geographical Information Systems. Oxford University Press, London.
4. Hofmann-Wellenhof, B., Lichtenegger, H. and Wasle, E. (2008). Global Navigational Satellite Systems (GNSS). Springer Wien, New York.
5. Agrawal, N.K. (2006). Essentials of GPS. Geodesy and GPS Publications, Hyderabad.
6. Sickle, J.V. (2008). GPS for Land Surveyors, CRC Press, Taylor & Francis Group, New York.

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT I: Basic Concepts			
	Components of GIS – Data Structure and Format	2	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Spatial Data models: Raster and Vector	2	Chalk and Talk , Demonstrate the network model through ppt.
	Linking Spatial and Non Spatial Data	2	Chalk and Talk
UNIT II: Raster and Vector Data Analysis			
	Integration of Raster and Vector Data	2	Chalk and Talk
	Data Structure, Data Compression	2	Demonstrate the through ppt. Group Discussion.
	Data Files, Data Conversion	2	Demonstrate the ppt.
UNIT III: Statistical Analysis			
	Slope Aspects, Overlay Operations	2	Demonstrate the network through maps.
	Topological and Non Topological Vector Data	2	Validate the network model through practical assignment.
	Spatial Resolution	2	Establish the network model through practical assessment.
UNIT IV: Introduction- GNSS			
	GPS System overview	2	Demonstrate through ppt.
	Working Principles of GPS	2	Establish the model through ppt.
	Atmospheric and Ionospheric errors.	2	Chalk and Talk , Reveal the model through maps and ppt.
UNIT V: GNSS AND GIS Integration			
	Integration techniques	2	Chalk and Talk.
	Data Focused Integration	2	Demonstrate the process through ppt.
	Hardware and Software Platforms	2	Self study and group discussion.

Course out comes (cos)	Programme outcomes (pos)					Programme specific outcomes (PSOs)					Mean scores of Cos
	PO1	PO2	PO3	PO4	PO 5	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	
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: Dr.J.Rosy Grace Angelene.

Programme : B.SC GEOGRAPHY **Part III: Course Type : SEC - III**

Semester : V **Hours : 2P/W 30 Hrs P/S**
Sub. Code : U22SEG3P **Credits : 2**

Title of the Paper**: FIELD SURVEY AND MAPPING ANALYSIS**

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

PREAMBLE: The paper emphasize the knowledge about Field Survey & mapping techniques based on suitable analysis.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the Ethics, Framing Research Questions, Objectives	1	7
CO2: Examine the Selection of field and identification of the topic	2	7
CO3: Apply the knowledge to Field Techniques	3	8
CO4: Understand to measure the Qualitative / Quantitative Data Analysis	4	8

SYLLABUS

UNIT I: Field work: Ethics, Framing Research Questions, Objectives and Hypothesis; Literature Review; Preparing Sample Questionnaire.

UNIT II: Selection of field and identification of the topic – Physical Survey / Socio-Economic survey / Rural / Urban / Coastal / Environmental.

UNIT III: Field Techniques – Merits, Demerits and Selection of the Appropriate Technique / geospatial technology / spatial sampling / questionnaire survey / Focused Group Discussions

UNIT IV: Data Analysis: Qualitative / Quantitative Data Analysis; spatial data Representation Techniques - Spatial Analysis – Field Report.

BOOKS FOR REFERENCES:

1. Creswell J., 1994. Research Design: Qualitative and Quantitative Approaches Sage Publications.
2. Dikshit, R. D. 2003. The Art and Science of Geography: Integrated Readings. Prentice-Hall of India, New Delhi.
3. Evans M., 1988. Participant Observation: The Researcher as Research Tool in Qualitative Methods in Human Geography, eds. J. Eyles and D. Smith, Polity.
4. Mukherjee, Neela, 1993. Participatory Rural Appraisal: Methodology and Application. Concept Publs. Co., New Delhi.
5. Mukherjee, Neela, 2002. Participatory Learning and Action: with 100 Field Methods. Concept Publs. Co., New Delhi.
6. Research Reports: A Basic Guide for Students of the Social and Behavioural Sciences.
7. Robinson A., 1998. Thinking Straight and Writing That Way, in Writing Empirical
8. Stoddard R. H., 1982. Field Techniques and Research Methods in Geography, Kendall/Hunt.
9. Wolcott, H., 1995. The Art of Fieldwork. Alta Mira Press, Walnut Creek, CA.

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT I Field work			
	Framing Research Questions, Objectives	4	Demonstration
	Preparing Sample Questionnaire	3	Chalk And Talk
UNIT II : Selection of field			
	Physical Survey	3	Chalk And Talk
	Socio-Economic survey etc.,	4	Chalk And Talk ,Demonstration and using instruments
UNIT III : Field Techniques			
	Selection of the Appropriate Technique	4	Demonstration and using instruments
	Spatial sampling / Questionnaire survey	4	Chalk And Talk ,Group Discussion
UNIT IV: Data Analysis			
	Spatial data Representation	4	Demonstration and using instruments
	Field Report	4	Group Discussion

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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.75

Result: The Score for this Course is 4.75 (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 Mean Score / Total No. of COs		

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

Course Designer: Dr.J.Rosy Grace Angelene.

Programme : B.SC GEOGRAPHY **Part III: Course Type :XIII**
Semester : VI **Hours : 6 P/W 90 Hrs P/S**
Sub. Code : U22CG13 **Credits :5**

Title of the Paper**: SETTLEMENT GEOGRAPHY**

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

PREAMBLE:
Orderly description and interpretation of morphology, functions and spatial organization of human settlements on the earth surface

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Nature and scope : to understand the location size and growth has related with nature of Settlements.	1	18
CO2: Rural settlements : space bound social organization varying from an isolated farmstead	2	18
CO3: Urban settlements: to study the social organization has much greater scope	3	18
CO4: Urban morphology : examine the concerned with form, structure and functions of an area	4	18
CO5:Understand the demographic pattern and problems of urban areas	5	18

SYLLABUS

UNIT –I: Nature and Scope – Types of Settlements- Rural and Urban

UNIT –II: Rural Settlements – Locational factors – Rural Settlement Types and Patterns – rural service centers.

UNIT –III: Urban Settlements – concept – Site & Situation - Functional classification of towns – Factors for
Urban Growth – Urbanization - Urbanization in India.

UNIT –IV: Urban Morphology – Urban Land Use Models - Concentric Zone Theory – Sector Theory – Multiple Nuclei Theory.

UNIT –V: Urban Demography- Urban Problems – Slums – Transport - Pollution – Urban Planning.

BOOKS FOR REFERENCE

1. Everson J.A & Fitz Gerald B.P-Concepts in Geography- Settlement Patterns-Longman Group Ltd, England-1969.
2. Gohcheng Leong, Gillion c.Morgon – Human & Economic Geography – Oxford University press, Oxford – 1995.
3. Johnson J.H. – Urban geography – An Introductory Analysis – Pergamon Press, London – 1967.
4. Majid Husain – Urban Geography - Anmol Publications Pvt Ltd, New Delhi - 1994.
5. Mandal .R.B Urban Geography – A Text book – Concept publishing Company, New Delhi – 2000.
6. Mayer H.M &Kohn C.F - Readings in Urban Geography – Chicago Printing Press, Chicago – 1967.
7. Misra H.N. - Rural Geography - Heritage Publishers, New Delhi – 1987.
8. Money D.C. - Introduction to Human Geography – Evan Brothers, London - 1967.
9. Sinha S.P. Faguni Ram, Manager Prasad, Hari Ram Nangalia - Instant Encyclopaedia of Geography of Urban and Rural Geography - Mittal Publications, New Delhi – 1993.
10. Singh R.L. - Reading in Rural Settlement Geography – Kalyani Publishers, New Delhi – 1979.

UNITS	TOPIC	Hrs / Week	MODE OF TEACHING
UNIT 1			
	Nature and Scope	6	Chalk and talk
	Types of Settlements	6	PPT lecture and student seminar
	Rural and Urban	6	PPT and video lecture
UNIT 11			
	Rural Settlements Locational factors	6	Chalk and talk -test
	Rural Settlement Types	6	PPT lecture and student seminar
	Patterns	6	PPT lecture
UNIT III			
	Urban Settlements – Site & Situation	6	Chalk and talk -video
	Functional classification	6	PPT , Chalk and talk lecture
	Urbanization	6	video lecture-test
UNIT IV			
	Urban Morphology – Morphology	6	PPT lecture
	Land Use Models	6	PPT lecture and student seminar
	Theory.	6	PPT lecture
UNIT V			
	Demography and Problems – Demography	6	PPT lecture
	Problems	6	Video lecture
	Planning	6	Reference and video lecture

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	3	5	5	4	3	3	3	4	3	3	3	4	5	3	3.6
CO2	5	4	3	3	3	4	5	5	4	3	3	3	4	3	3.7
CO3	3	5	4	3	4	3	4	4	3	5	5	4	3	3	3.8
CO4	4	5	5	4	3	3	3	3	4	3	4	5	4	3	3.8
CO5	5	3	3	3	4	3	4	4	3	4	3	4	5	3	3.6
Mean Overall Score															3.7

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: Dr.J.Rosy Grace Angelene

Programme : B.SC GEOGRAPHY (UG) **Part III: XIV**
Semester : VI **Hours : 5 P/W 75 Hrs P/S**
Sub. Code :U22CG14 **Credits : 5**

Title of the Paper**: PRINCIPLES OF REMOTE SENSING**

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

PREAMBLE: The paper emphasize the knowledge about Remote Sensing –Elements of Remote Sensing and Computer based tool for mapping and analyzing feature events on earth

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Acquisition of information about an object- area without making physical contact by air crafts and satellite.	1	15
CO2: To understand the Elements of remote sensing system , sensing of emitted energy and the use of non- imaging sensors	2	15
CO3: Examine the air photos through sophisticated methods	3	15
CO4: Refers to the structure of the instruments has mounted	4	15
CO5:To manage the spatial data with suitable applications	5	15

SYLLABUS

UNIT I: Remote Sensing: Definition and types: Aerial, Satellite and Radar, Development of Space Programs.

UNIT II: Remote Sensing Processes: Sources of Energy, Electromagnetic Radiation (EMR), Electromagnetic Spectrum, Atmospheric Windows – Energy Interaction with Atmosphere and Earth.

UNIT III: Platforms, Types of Platforms and its Characteristics – Sensor: Active and Passive, Optical – Mechanical Scanners and Push-Broom Scanners.

UNIT IV: Fundamentals of Aerial Remote Sensing: Components of Aerial Camera, Types of Aerial Photographs – Elements of Photo Interpretation.

UNIT V: Fundamentals of Satellite Remote Sensing: Types of Satellites: Geo Stationary and Sun Synchronous Satellites – IRS Series – Resolution : Spatial, Spectral, Radiometric and Temporal.

BOOKS FOR REFERENCES:

1. Agarwal C.S. and P.K. Garg– Text Book of Remote Sensing – Wheeler publishers, New Delhi - 2000
2. Bhatta . B – Remote Sensing and GIS – Oxford University Press, New Delhi – 2008.
3. Campbell, James.B – Introduction to Remote Sensing – The Guild Press – New york - 1996
4. Curran.p – Fundamentals of Remote Sensing – Longman London – 1990.
5. Chouhan T.S. & Josi K.N. Applied Remote Sensing and Photo Interpretation – Vigyan Prakashan Jodhpur – 1996
6. Kang- Tsung Chang – Introduction to Geographic Information Systems – Published by McGraw – Hill,A Business Unit of the McGraw – Hill Companies, Newyork - 2002
7. Kudral M.K., Dr. Nag. P – Digital Remote sensing – Concept of Publsihing Company, New Delhi – 1998.
8. Lillesand .T.M. and Kiefer R. W. – Remote Sensing and Image Interpretation, Fourth Edition, John wiley & Sons, Inc New york – 2000.
9. Mathur P.M. – Computer Application in Geography, Weliey - 1991
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 – Universities press.. – 1999.
12. Patel.A.N. and Surendra Singh - Remote Sensing Principles an Application – Scientific Publishers (India) Jodhpur - 1999.
13. Pradeep Kumar – Dictionary of Geographical Information Systems – Bio Tec Books, 1123/74, Trinagar Delhi - 2007
14. Rampal,K.K – Hand Book of Aerial Photography and Interpretation – Concept Publishing Company, New Delhi – 1999.
15. Barrett, E.C. and Curtis, L.F. (1992). Introduction to Environmental Remote Sensing.

Chapman and Hall Publications, London.
16. Campbell, J.B. and Wynne, R.H. (1987). Introduction to Remote Sensing. The Guilford Press, New York.
17. Lillesand, T.M. and Kiefer, R.W. (1987). Remote Sensing and Image Interpretation. John Willy and Sons, New York.
18. Lueder, D.R. (1959). Aerial Photographic Interpretation– Principles and Applications. McGraw Hill Book Co., New York.
19. Wolf, P.R. (1974). Elements of Photogrammetry: with Air Photo Interpretation and Remote Sensing. McGraw Hill Book Co.,New York.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I Remote Sensing			
	Remote sensing Definition	6	Chalk & talk
	Scope	6	Video lecture and student seminar
	Historical development	6	PPT lecture
UNIT II- Remote Sensing Processes			
	Remote Sensing System Energy sources	6	Chalk & talk
	– EMR – Spectrum-	6	PPT lecture
	Interaction energy	6	Video lecture and student seminar
UNIT III - Platforms			
	Platforms – Sensor System	6	Chalk & talk and student PPT
	LAND SAT System – SPOT System	6	PPT lecture
	IRS Series	6	e-content and practical assessment
UNIT IV Aerial Remote Sensing:			
	Components of Aerial Camera	6	PPT lecture
	Types of Aerial Photographs	6	PPT lecture and student seminar
	Photo Interpretation	6	PPT And Video Lecture -Test
UNIT V - Satellite Remote Sensing			
	Types of Satellites	6	PPT And Video Lecture
	IRS Series	6	PPT And Video Lecture
	Resolution	6	Video Lecture / Group Discussion

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
CO1	4	5	3	3	4	4	3	5	4	3	5	4	3	5	3.9
CO2	5	4	3	3	3	4	5	4	3	5	3	4	5	3	3.9
CO3	5	3	3	4	4	3	3	3	4	5	5	4	3	3	3.7
CO4	3	3	4	5	4	5	4	3	4	4	5	4	3	3	3.9
CO5	5	4	3	4	5	4	5	4	4	3	3	4	5	3	4.0
Mean Overall Score															3.9

Result: The Score for this Course is 3.9 (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: Dr.J.Rosy Grace Angelene

Programme : B.Sc GEOGRAPHY **Part III: Course Type:XV**
Semester : VI **Hours : 5 P/W 75Hrs P/S**
Sub. Code : U22CG15P **Credits : 4**

Title of the Paper**: AERIAL PHOTO AND SATELLITE IMAGE INTERPRETATION**

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

PREAMBLE: Analysis of physical data through profiles – drainage pattern - stream order and analysis and representation of climatic data. This method explains the spatial 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
CO1: Understand the Elements of aerial photographs – Determination of scale, distance, height and area.	1	18
CO2: Understand different analysis of Interpretation of single vertical photograph – Interpretation of stereo pair	2	18
CO3: To know the techniques of Marginal information of satellite	3	19
CO4: To identify the Interpretation of resources and weather satellite images – image classification	4	20

SYLLABUS

UNIT -1: Marginal information of aerial photographs – Elements of aerial photographs – Determination of scale, distance, height and area.

UNIT -II: Stereovision test using pocket stereoscope and mirror stereoscope – Interpretation of single vertical photograph – Interpretation of stereo pair

UNIT -III: Marginal information of satellite images – Elements of image Interpretation.

UNIT -IV: Interpretation of satellite images – Interpretation of resources and weather satellite images – image classification

BOOKS FOR REFERENCES

1. Barrett, E.C. and Curtis, L.F. (1992). Introduction to Environmental Remote Sensing.Chapman and Hall Publications, London.
2. Campbell, J.B. and Wynne, R.H. (1987). Introduction to Remote Sensing. The Guilford Press, New York.
3. Lillesand, T.M. and Kiefer, R.W. (1987). Remote Sensing and Image Interpretation.John Willy and Sons, New York.
4. Lueder, D.R. (1959). Aerial Photographic Interpretation– Principles and Applications. McGraw Hill Book Co., New York.
5. Wolf, P.R. (1974). Elements of Photogrammetry: with Air Photo Interpretation andRemote Sensing. McGraw Hill Book Co., New York.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Elements of aerialphotographs	9	Demonstration with aerial photo.
	Determination of scale, distance, height and area.	9	Demonstration with aerial photo.
UNIT II			
	Stereovision test using pocket stereoscope and mirror stereoscope	9	Demonstration with aerial photo and stereo pair
	Interpretation of single vertical photograph Interpretation of stereo pair	9	Demonstration with aerial photo and stereo pair
UNIT III			
	Marginal information of satellite images	9	Demonstration with topographical maps
	Elements of image interpretation	10	Demonstration with aerial photos.
UNIT IV			
	Interpretation of resource satellite images	8	Demonstration with aerial photos.
	Weather satellite interpretation	8	Demonstration with meteorological report
	Image classification	4	Demonstration with meteorological report.

Course out comes (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 MeaScore / Total No. of COs

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

Course Designer: Dr. S.Usha Buvaneswari

Programme : B.SC GEOGRAPHY **Part III: Course Type:DSEC:II**
Semester : VI **Hours : 5 P/W 75 Hrs P/S**
Sub. Code : U22DSG2A **Credits : 4**

Title of the Paper**: GEOGRAPHY OF TAMILNADU**

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

PREAMBLE: Geography of Tamil Nadu is a part of Regional Geography explains the Physical, socio-economic development and distribution of resources of Tamil Nadu.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Identify the location, Relief, Drainage, Climate, Types of Soils and Forest of Tamil Nadu	1	15
CO2: Examine the distribution of various forests, livestock and fisheries in Tamil Nadu	2	15
CO3: Analyse the irrigation and agricultural resources in Tamil Nadu	3	15
CO4: Knowledge about the different types mineral and industrial resources in Tamil Nadu	4	15
CO5: Understand the growth, distribution of population of Tamil Nadu and the various kinds of transportation like land ,water and air and trade	5	15

SYLLABUS

UNIT 1: Location and Extend: Administrative units – Major relief features Major rivers – Climate: temperature, Seasonal and Annual rainfall distribution, Soil: types and their distribution.

UNIT II: Forest, Livestock and Fisheries: Types and distribution, forest products, Livestock: cattle, sheep, dairying and fisheries-inland and deep-sea fishing.

UNIT III: Irrigation and Agriculture Resources: types and distribution – canal, tank and well irrigation, Agriculture: distribution and production of rice, cotton, sugarcane, and rain fed crops, oil seeds, tea and coffee.

UNIT IV: Mineral and Industrial Resources: General distribution and production. Power resources: Hydel, thermal, atomic and wind power, Industries: distribution and production of – cement, sugar, cotton, automobile and paper.

UNIT V: Transport: Development and distribution of roads, railways, air and sea transportation - Important ports, Population – growth and distribution of rural and urban population.

BOOKS FOR REFERENCES

1. Kumaraswamy, S.V. (2014). Geography of Tamil Nadu (Tamil Edition), Sakthi Abirami Pathipagam, Coimbatore.

2. SHBoTN (2004). Statistical Hand Book of Tamil Nadu. Department of Economics and Statistics, Government of Tamil Nadu, Chennai.

3. TNEA (2014). Tamil Nadu – An Economic Appraisal 2011-12 to 2013-14. Department of Evaluation and Applied Research, Chennai.

4. SCRoTN (2004). Season and Crop Report of Tamil Nadu for the Agricultural Year 2003-2004. Department of Economics and Statistics, Chennai.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Location - Relief -administrative units	5	Group discussion, Maps and Atlas
	Major rivers - climate	5	Group discussion, Maps and Atlas
	Rainfall and soil distribution	5	Group discussion, Maps and Atlas
UNIT 11			
	Forest – types – products	5	chalk and talk and usage of maps and Atlas
	Livestock types and distribution	5	chalk and talk and usage of maps and atlas
	Fisheries and types	5	chalk and talk and usage of maps and atlas
UNIT III			
	Irrigation types	5	Maps , Atlas and VLC
	Distribution of rice, cotton, sugarcane	5	Maps , Atlas and VLC
	Rainfed crops, oil seeds, tea and coffee	5	Maps , Atlas and VLC
UNIT IV			
	General distribution of minerals	5	chalk and talk and usage of maps and atlas and PPT lecture
	Power resources like Hydel, thermal, atomic and wind power	5	chalk and talk and usage of maps and atlas and PPT lecture
	Industries distribution of cement, sugar, cotton, automobile and paper	5	chalk and talk and usage of maps and atlas and PPT lecture
UNIT V			
	Development of transport system	5	Group discussion, Census Report, Maps and Atlas and PPT lecture
	Distribution of roads, railways, air and sea transportation	5	Group discussion, Census Report, Maps and Atlas and PPT lecture
	Population – growth and distribution of rural and urban population	5	Group discussion, Maps and Atlas and PPT lecture

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PSO 1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7	
CO1	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Mean Overall Score															4.6

Result: The Score for this Course is 4.6 (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: Mrs.M.Sirasunisa Begum

Programme : B.SC GEOGRAPHY **Part III: DSEC-II**
Semester : VI **Hours : 5 P/W 75 Hrs P/S**
Sub. Code :U22DSG2B **Credits : 4**

Title of the Paper**: BIO - GEOGRAPHY**

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

PREAMBLE: The paper emphasize the knowledge about the Bio – Geography and its explains the interrelations between Biotic and Abiotic elements of the Eco-system. Types of the Ecosystem and Environmental Management.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the Definition Scope, Origin of Flora and Fauna-Distribution of plant life on the Earth.	1	15
CO2: To understand The Basic principles, food chain and concept of Biome, Eco – tone and community.	2	15
CO3: Analysis Biodiversity, Habitat decay, need for conservation and process of Desertification and its Consequences.	3	15
CO4: Understand the World Biome Topical forest and grasslands, Temperate grassland and Tropical Desert	4	15
CO5: understand the Ecological and Environmental Managements	5	15

SYLLABUS

UNIT I: Bio-geography: Definition, Scope and significance Origin of Fauna and Flora-Plants and Animal evolution throughout the geological times- distribution of plant life on the earth.

UNIT II: Basic Ecological Principles-Tropical level and food chain. Concepts of Biome, Eco-tone and community.

UNIT III: Bio-Diversity: Problems of Extinction of plant and animal life-Habitat decay and need for conservation-Process of Desertification and its Consequences.

UNIT IV: World Biomes: Major Biomes – Tropical forest – Tropical Grasslands Temperate Grasslands and Tropical Deserts.

UNIT V: Ecological and Environmental Managements: Study of Ecological regions of Himalayas and the Western-Ghats- Conservation and Management.

BOOKS FOR REFERENCES:

1. Robinson, H.(1972).Biogeography. Macdonald and Evans Publication, London.
2. Singh,S.(1991).Environmental Geography. Prayag Pustak Bhawan, Allahabad.
3. Pears,N.(1993). Basic Biogeography. Longman Publictions, London.
4. Newbigin, M.(1968). Plant and Animal Geography. Geography. Egmont Books Ltd.,
5. Saxema,H.M.(2004). Environmental Geography (2nd Edition). Rawat Publications, Jaip.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Bio-geography: Definition, Scope and significance	5	Chalk & talk
	Origin of Fauna and Flora-Plants and Animal evolution	5	Video lecture and Map
	Distribution of plant life on the earth.	5	Chart, PPT
UNIT II			
	Basic Ecological Principles-Tropical level and food chain	5	Chalk & talk
	Concepts of Biome,	5	Chart and PPT
	Eco-tone and community.	5	Video lecture and student seminar
UNIT III			
	Bio-Diversity: Problems of Extinction of plant and animal life	5	Chalk & talk and student PPT
	Habitat decay and need for conservation	5	PPT lecture
	Process of Desertification and its Consequences.	5	Chalk and talk
UNIT IV			
	World Biomes: Major Biomes	5	PPT lecture
	Tropical forest – Tropical Grasslands	5	PPT lecture and student seminar
	Temperate Grasslands and Tropical Deserts.	5	Map and Chalk and Talk
UNIT V			
	Ecological and Environmental Managements	5	PPT And Video Lecture
	Study of Ecological regions of Himalayas and the Western-Ghats-	5	PPT And Video Lecture
	Conservation and Management	5	Group Discussion

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	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	5	3	3	4	4	3	5	4	3	5	4	3	5	3.9
CO2	5	4	3	3	3	4	5	4	3	5	3	4	5	3	3.9
CO3	5	3	3	4	4	3	3	3	4	5	5	4	3	3	3.7
CO4	3	3	4	5	4	5	4	3	4	4	5	4	3	3	3.9
CO5	5	4	3	4	5	4	5	4	4	3	3	4	5	3	4.0
Mean Overall Score															3.9

Result: The Score for this Course is 3.9 (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: Mrs.D.RukmaniDevi

Programme : B.SC GEOGRAPHY **Part III: Course Type :DSEC-III**
Semester : VI **Hours : 5 P/W 75Hrs P/S**
Sub. Code : U22DSG3A **Credits :4**

Title of the Paper**: GEOGRAPHY OF ASIA**

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

PREAMBLE: The paper emphasis the student to understand physical conditions, economic and commercial development of Asia and the impact of man and environmental relationship related.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: To know the idea about the Physical Landscape: Location-importance of its location - Asia is a continent of contrast – Political divisions - Physiographic division	1	15
CO2: To understand Soil: types, characteristics and problems – Agricultural determinants - Major crops and distribution - Asia	2	15
CO3: To explain the Minerals and Industries, major industries and their location - problems and future.	3	15
CO4: Acquire more knowledge about the Transport and Trade	4	15
CO5: To understand the Population: distribution, population pyramids, problems and policies with case studies and Natural and Human Hazards - Asia in future.	5	15

SYLLABUS

UNIT-1: Physical Landscape: Location-importance of its location - Asia is a continent of contrast – Political divisions - Physiographic divisions - Drainage - Climate - Natural vegetation.

UNIT-II: Soil and Agriculture: Soil: types, characteristics and problems – Agricultural determinants - Major crops and distribution - Agricultural problems and sustainable agriculture.

UNIT-IIII: Minerals and Industries: Minerals: location, distribution and issues – Power resources Industries: major industries and their location - problems and future.

UNIT-IV: Transport and Trade: Transport: types – and major routes - Major ports and harbors Tourism - Trade: major imports and exports.

UNIT-V: Population, Urbanization and Recent Issues: Population: distribution, population pyramids, problems and policies with case studies -Languages - Urbanization: current status and urban problems - Natural and Human Hazards - Asia in future.

BOOKS FOR REFERENCES

1. Douglas.L.J., (2009) World Regional Geography, 10thEdition, Pearson Education, Inc., New Jersey.
2. Hussain M. (2015) World Geography, 5thEdition, Rawat publications, Jaipur.
3. Alka Gautam . Advanced Economic Geography – Saharda Pustak Bhawan Allahabad -2010
4. Bergsmark.D.R. - Economic Geography of Asia - Vol.I&II -Mangal Deep Publication , Jaipur.
5. Cressy - Asia's Land and People - Mc Graw Hill - 1964.
6. Dobby.E.H.G -South East Asia, University of London Press -1960.
7. East and Spate - Changing Map of Asia - Methuen Publication - 1971.
8. Fisher.W.B - The Middle East : A Physical Social and Regional Geography - New York - 1971.
9. Kahanna K.K. And Gupta V.K Economic And Commercial Geography – sulthan chand and Sons

, New Delhi -2001.
10. Mohammed Shafi - Agricultural Geography of South Asia - Mac Millan India Ltd., New Delhi - 2000.
11. Phani Deka - Geography, Economic and Regional - Wiley Eastern Ltd.,Chennai - 1992.
12. Ranjit Tirtha – Geography of Asia - Rewet Publications New Delhi -2001.
13. Stamp - A Regional Geography Longmans - 1965.

Web References

1.http://www.mapsopensource.com/asia-political-map.html (Political facts of Asia)

2.http://www.mapsofworld.com/physical-map/asia.htm (Physical of Asia)

3.http://www.asiafastfacts.com/asiaclimate.html (Climate of Asia)

4.http://www.Biologydiscussion.com/soil/what-are-the-main-causes-of-soil degradation /7276 (Soil of Asia)

5.http://www.conserve-energy-future.com/causes-effects-solutions-of-desertification.php (Natural Vegetation of Asia)

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Physical Landscape: Location-importance of its location Asia is a continent of contrast – Political divisions -	5	Group discussion, VLC and PPT lecture
	Physiographic divisions - Drainage	5	Group discussion, VLC and PPT lecture
	Climate - Natural vegetation.	5	Group discussion, VLC and PPT lecture
UNIT II			
	Soil: types, characteristics and problems	5	chalk and talk and usage of maps ,PPT and VLC
	Agricultural determinants - Major crops and distribution -	5	chalk and talk and usage of maps ,PPT and VLC
	Agricultural problems and sustainable agriculture.	5	chalk and talk and usage of maps ,PPT and VLC
UNIT III			
	Minerals: location, distribution and issues	5	Group discussion, VLC and PPT lecture
	– Power resources –	5	Group discussion, VLC and PPT lecture
	Industries: major industries and their location -	5	Group discussion, VLC and PPT lecture
UNIT IV			
	Transport: types – and major routes	5	Group discussion, chalk and talk and usage of maps VLC and PPT lecture
	Major ports and harbors – Tourism	5	Group discussion, chalk and talk and usage of maps VLC and PPT lecture
	Trade: major imports and exports..	5	Group discussion, chalk and talk and usage of maps VLC and PPT lecture
UNIT V			
	Population: distribution, population pyramids, problems and policies	5	chalk and talk ,Group discussion, , Maps and Atlas and PPT lecture
	Languages - Urbanization: current status and urban problems -	5	chalk and talk ,Group discussion, Maps and Atlas and PPT lecture
	- Natural and Human Hazards - Asia in future.	5	chalk and talk ,Group discussion, Maps and Atlas and PPT lecture

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	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 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 : Mrs.N.Pothumani

Programme : B.SC GEOGRAPHY **Part III: Course Type :DSEC-III**
Semester : VI **Hours : 5 P/W 75Hrs P/S**
Sub. Code : U22DSG3B **Credits :4**

Title of the Paper**: GEOGRAPHY OF TRAVEL AND TOURISM**

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

PREAMBLE: The paper emphasis the student to understand physical, social and economical development of area and the impact of man and environmental relationship related with tour and travel

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Know the idea about the Travel – Motivation - Meaning and Nature of Tourism - Types of Tourism.	1	15
CO2: Understand the Elements of Tourism – Attraction, Accessibility, Accommodation and Amenities	2	15
CO3: Acquire more knowledge about the Travel formalities – Tour Itinerary Travel Agencies – Travel Abroad Facilities – Visa, Passport, Bank restrictions – Traveller's Cheques.	3	15
CO4: Explain the Role of Transport in Tourism Development.	4	15
CO5: observe and recognize Tourism Potentials of India - special reference to India- The role of India Tourism Development Corporation (ITDC) – Indian Tourism Development Corporation and World Tourism Organization (WTO)	5	15

SYLLABUS

UNIT -I: Concept of Leisure and Tourism – Types of Tourism –Determinants and motivation of tourism-Tourism development in the world – Tourism in India.

UNIT -II: Elements of tourism – Attraction, Accessibility and Amenities –Classification of tourist spots – Accommodation – Primary and supplementary accommodation – Hotels, inns and motels

UNIT -III: Travel formalities – Tour itinerary – Travel agency – Travel restriction – Passport, visa and bank restriction – Traveler's cheques – Credit and debit cards – Tourism and environment – Eco tourism

UNIT – IV: Transport and Trade: Transport: Types and major routs-Major ports and harbours- Trade: Major imports and exports-ASEAN.

UNIT-V: Tourist Organization –World Tourism Organization (WTO)–Indian Tourism Development Corporation (ITDC) and subsidiaries – Tourism promotion – advertisement – Tourism planning and development – Tourist spots in India – Potential of tourism in India - Problems of tourism development .

BOOKS FOR REFERENCES

1. Tourism development – Bhatia, Sterling Publishers, 1986
2. Tourism: Past, Present and Future – Burkart & Madlik, Heinemann, 1976
3. Geography of Tourism – Robinson, Mcdonald and Evans, 1976
4. Geography of Recreation and Leisure, - Consgrove, Hutchinson, 1972

Web References

1. http://www.tourismsociety.org/page/88/tourism-definitions.htm
2. https://www.britannica.com/topic/tourism
3. https://www.researchgate.net/figure/The-elements-of-tourism-system_fig2_313841811
4. http://anandasanyal.blogspot.com/2009/04/role-of-transportation-in-tourism.html
5. https://www.tandfonline.com/loi/rthp21

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Travel – Motivation - Meaning and Nature of Tourism -	5	Group discussion, VLC and PPT lecture
	Types of Tourism	5	Group discussion, VLC and PPT lecture
	Tourism development in the world – Tourism in India.	5	Group discussion, VLC and PPT lecture
UNIT II			
	Elements of Tourism –	5	chalk and talk and usage of maps ,PPT and VLC
	Attraction, Accessibility,	5	chalk and talk and usage of maps ,PPT and VLC
	Accommodation and Amenities	5	chalk and talk and usage of maps ,PPT and VLC
UNIT III			
	Travel formalities – Tour Itinerary	5	Group discussion, VLC and PPT lecture
	Travel Agencies – Travel Abroad Facilities – Visa, Passport,	5	Group discussion, VLC and PPT lecture
	Bank Restrictions – Traveller's Cheques	5	Group discussion, VLC and PPT lecture
UNIT IV			
	Role of Transport in Tourism Development-Land and Water	5	Group discussion, chalk and talk and usage of maps VLC and PPT lecture
	Air Transport	5	Group discussion, chalk and talk and usage of maps VLC and PPT lecture
	Trade: Major imports and exports-ASEAN.	5	Group discussion, chalk and talk and usage of maps VLC and PPT lecture
UNIT V			
	Tourism Potentials of India (India Tourism Development Corporation-ITDC)	5	chalk and talk ,Group discussion, , Maps and Atlas and PPT lecture
	Potential of tourism in India	5	chalk and talk ,Group discussion, Maps and Atlas and PPT lecture
	Problems of tourism development .	5	chalk and talk ,Group discussion, Maps and Atlas and PPT lecture

Course Out comes (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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	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 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: Mrs.N.Pothumani

Programme : B.Sc. GEOGRAPHY **Part III: Course Type : GEC1**
Semester : VI **Hours : 2 P/W 30 Hrs P/S**
Sub. Code : U22GEG1B **Credits: 2**

Title of the Paper**: GEOGRAPHY OF HEALTH**

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

PREAMBLE:
Geography of Health is a sub discipline of human geography, which deals with the interaction between people and the environment. Health geography views health from a holistic perspective encompassing society and space, and it conceptualizes the role of place, location and geography in health, well-being and disease.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Understand the nature scope and development of health geography.	1	6
CO2: Find out the Geographical Background of Diseases.	2	6
CO3: to identify the health risk and exposure	3	6
CO4: Understand classification of diseases. Create Awareness of malnutrition and hygiene.	4	6
CO5: Understand the Process of health care planning in India.	5	6

SYLLABUS

UNIT-I: Perspectives on Health: Definition; linkages with environment, development and health; driving forces in health and environmental trends - population dynamics, urbanization, poverty and inequality.

UNIT-II: Pressure on Environmental Quality and Health: Human activities and environmental pressure land use and agricultural development; industrialization; transport and energy.

UNIT-III: Exposure and Health Risks: Air pollution; household wastes; water; housing; workplace.

UNIT-IV: Major Diseases – Cholera, Malaria, Tuberculosis, Hepatitis, Leprosy, Cardiovascular, Cancer, AIDS and STDS.

UNIT-V : Health Care Planning in India – Health care services, Primary Health Care, Family Welfare, Immunization, National Diseases Eradication Programmes

BOOKS FOR REFERENCE

1. Ahmed Hussain .Geography and Health-Mahaveer & sons,New Delhi-2007.
2. Cliff. A and Hagget. P. – Atlas of Disease Distribution – Basil Backwell Oxford – 1989.
3. May J.M. The World Atlas of Disease, Nat. Book Trust, New Delhi - 1970.
4. Misra.R.P Geography of Health - Concept Publishing Company,New Delhi-2007
5. Park. K. Preventive and Social Medicine - M/s Banarasidas Bhenot, Jabalpur - 2007.
6. Rais A, and Learmonth A.T. A - Geographical Aspects of Health and Diseases in India - 1970.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I Health- Environment			
	Geography of Health- Definition; linkages with environment	2	Chalk and talk
	Development and health and environment trends	2	Chalk and talk
	Population dynamics, urbanization, poverty and in equality.	2	Chalk and talk & videos
UNIT II environmental pressure			
	Human Health – environmental pressure	2	Medical reports and VLC
	Urbanization	2	Medical reports and VLC
	Transport and energy	2	Medical reports and VLC
UNIT III exposure and health risks			
	Air & water pollution .	2	Medical reports ,VLC and PPT Representation
	Household waste & housing	2	Medical reports, VLC and PPT Representation
	Health risk in workplace	2	Medical reports ,VLC and PPT Representation
UNIT IV Major Diseases			
	Major Diseases – Cholera, Malaria, Tuberculosis,	2	Medical reports ,VLC and PPT Representation
	Hepatitis, Leprosy, Cardiovascular,	2	Medical reports, VLC and PPT Representation
	Cancer, AIDS and STDS.	2	Medical reports ,VLC and PPT Representation
UNIT V Health Care Planning in India			
	Health Care Planning in India – Health care services, Primary Health Care,	2	Medical reports ,VLC and PPT Representation
	Family Welfare, Immunization,	2	Medical reports ,VLC and PPT Representation
	National Diseases Eradication Programmes.	2	Medical reports ,VLC and PPT Representation

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO1	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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Mean Overall Score															4.8

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: Dr.S.Usha Buvaneswari

Programme :B.SC GEOGRAPHY **PART: III Course Type : GEC1**
Semester : VI **Hours : 2 P/W 30Hrs P/S**
Sub. Code : U22GEG1B **Credits :2**

Title of the Paper**: DISASTER MANAGEMENT**

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

PREAMBLE: Disaster management is a part of Environmental Geography –explains the hazard and its impact and management.

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Knowledge about the hazard, types - natural , manmade and environmental hazards	1	6
CO2: Understand the effects of global warming and causes of cyclones, flood, drought and tsunamis	2	6
CO3: Analyze the human impact on agriculture, consequences of deforestation and desertification	3	6
CO4: Knowledge about the classification of pollutions- air, water and noise pollution	4	6
CO5: Examine the awareness programmes about the disaster management	5	6

SYLLABUS

UNIT-I: Disaster and Hazards –Definition and Types- Environmental Hazards - Earthquake, Volcanoes & Landslide.

UNIT-II: Global Warming - Greenhouse Effect - Cyclones - Flood – Drought – Tsunami.

UNIT-III: Human impact on Agriculture – Deforestation - Desertification.

UNIT-IV: Pollution - Definition and classification.

UNIT-V: Disaster Management and Environmental Impact Assessment.

BOOKS FOR REFERENCE

1. Aaradhana. P.S- Environmental Management- Rajat Publication, New Delhi - 1998.
2. Abbasi.S.A.- Environmental Impact Assessment - Discovery Publishing House, New Delhi - 2000.
3. Agarwal.S.K.- Environmental Issues and Themes - APH Publishing corporation, New Delhi.
4. Chawla- Natural Hazards and Disaster Management – Suman Printing Press – shahdara, New Delhi - 1993
5. Clark.B.D- Environmental Impact Assessment - Mansell Publication, London - 1980.
6. Robinson.H. - Biogeography Plymouth - MacDonald and Evans Ltd - 1972.
7. Sharma.P.D.- Ecology and Environment - Rastogi Publications, Meerut - 1994.
8. Trivedi.P.R. - Water Pollution - Akashdeep Publishing House, New Delhi - 1992.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Disaster and Hazards –Definition	2	Group discussion, VLC and PPT lecture
	Types- Environmental Hazard	2	Group discussion, VLC and PPT lecture
	Earthquake, Volcanoes & Landslide.	2	Group discussion, VLC and PPT lecture
UNIT 11			
	Global Warming - Greenhouse Effect -	2	chalk and talk and usage of maps and Atlas and VLC
	Cyclones	2	chalk and talk and usage of maps and atlas and VLC
	Flood – Drought – Tsunami	2	chalk and talk and usage of maps and atlas and VLC
UNIT III			
	Human impact on Agriculture	2	Group discussion, VLC and PPT lecture
	Deforestation	2	Group discussion, VLC and PPT lecture
	Desertification	2	Group discussion, VLC and PPT lecture
UNIT IV			
	Pollution - Definition	1	Group discussion, VLC and PPT lecture
	classification.	5	Group discussion, VLC and PPT lecture
UNIT V			
	disaster management mitigation	3	Group discussion, Census Report, Maps and Atlas and PPT lecture
	Environmental Impact Assessment	3	Group discussion, Census Report, Maps and Atlas and PPT lecture

Course Out comes (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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	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 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: Mrs.N.Pothumani

Programme :B.SC GEOGRAPHY **PART: III Course Type :**
Semester : **Hours : 2 P/W 30Hrs P/S**
Sub. Code : **Credits :2**

Title of the Paper**: MAPPING TECHNIQUES (**NON MAJOR STUDENTS**)**

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

PREAMBLE: The Paper on mapping techniques describes map – nature – scope- content – Shape and Size of earth - latitudes –longitudes- international date line and maps scale – point- line- area- symbols- Types of maps: Physical, Economic and thematic maps

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Knowledge about the Map: Definition – Nature – Scope and content	1	6
CO2: Understand the Earth: Shape and Size - Latitude and Longitude – Local time – Standard time and International Date	2	6
CO3: Analyze the Map Scales: Types – Uses	3	6
CO4: Knowledge about the Symbols: Types and Uses – Point, Line and Area.	4	6
CO5: Examine the Types of maps: Physical, Economic and thematic maps	5	6

SYLLABUS

UNIT-I: Map: Definition – Nature – Scope and content.

UNIT-II: The Earth: Shape and Size - Latitude and Longitude – Local time – Standard time and International Date.

UNIT-III: Map Scales: Types – Uses

UNIT-IV: Symbols: Types and Uses – Point, Line and Area.

UNIT-V: Types of maps: Physical, Economic and thematic maps

BOOKS FOR REFERENCES

1. Aaradhana. P.S- Environmental Management- Rajat Publication, New Delhi - 1998.
2. Abbasi.S.A.- Environmental Impact Assessment - Discovery Publishing House, New Delhi - 2000.
3. Agarwal.S.K.- Environmental Issues and Themes - APH Publishing corporation, New Delhi.
4. Chawla- Natural Hazards and Disaster Management – Suman Printing Press – shahdara, New Delhi - 1993
5. Clark.B.D- Environmental Impact Assessment - Mansell Publication, London - 1980.
6. Robinson.H. - Biogeography Plymouth - MacDonald and Evans Ltd - 1972.
7. Sharma.P.D.- Ecology and Environment - Rastogi Publications, Meerut - 1994.
8. Trivedi.P.R. - Water Pollution - Akashdeep Publishing House, New Delhi - 1992.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT 1			
	Map- Definition	2	chalk and talk and usage of maps and Atlas and VLC
	Nature and Scope	2	chalk and talk and usage of maps and Atlas and VLC
	content	2	chalk and talk and usage of maps and Atlas and VLC
UNIT 11			
	The Earth: Shape and Size	2	chalk and talk and usage of maps and Atlas and VLC
	Latitude and Longitude	2	chalk and talk and usage of maps and atlas and VLC
	Local time – Standard time and International Date	2	chalk and talk and usage of maps and atlas and VLC
UNIT III			
	Map Scales	2	chalk and talk and usage of maps and Atlas and VLC
	Types	2	chalk and talk and usage of maps and Atlas and VLC
	Uses	2	chalk and talk and usage of maps and Atlas and VLC
UNIT IV			
	Symbols: Types and Uses	1	chalk and talk and usage of maps and Atlas and VLC
	Point, Line and Area.	5	chalk and talk and usage of maps and Atlas and VLC
UNIT V			
	Types of maps	3	chalk and talk and usage of maps and Atlas and VLC
	Physical, Economic and thematic maps	3	chalk and talk and usage of maps and Atlas and VLC

Course Out comes (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	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO2	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO4	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
CO5	4	4	4	4	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 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: Mrs.N.Pothumani

Programme :B.SC GEOGRAPHY **PART: III Course Type :**
Semester : **Hours : 2 P/W 30Hrs P/S**
Sub. Code : **Credits : 2**

Title of the Paper**: COMPUTER ASSISTED CARTOGRAPHY (**MAJOR STUDENTS**)**

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

PREAMBLE:

COURSE OUTCOME At the end of the Semester, the Students will be able to	Unit	Hrs P/S
CO1: Knowledge about the Components of Computer: Elements of computer	1	6
CO2: Understand the Operating system	2	6
CO3: Analyze the Micro Soft Office	3	6
CO4: Knowledge about the Computer Remote Sensing: Digitization – Design and Layout – Reproduction	4	6
CO5: Examine the Computer GIS: GIS software	5	6

SYLLABUS

UNITS –I : Components of Computer: Elements - Hardware and Software.

UNITS –II : Operating system: Files and Folders Processing.

UNITS –III : Micro Soft Office: Word – Excel – Power Point.

UNITS –IV : Computer Remote Sensing: Digitization – Design and Layout – Reproduction

UNITS –V: Computer GIS: Raster Data – Vector data – GIS software.

BOOKS FOR REFERENCE

1. Ahmad khan. M.Z- Text Book of practical Geography – Concept Publishing company ,New Delhi – 1988.
2. Ishtiaq M. – A text Book of practical Geography – Heritage Publishers - New Delhi - 2001.
3. Jayachandran.S – Practical geography – Tamil Nadu Book Society, Chennai, 1963 (Tamil copy).
4. Misra R.P. and Ramesh. A – Fundamentals of Cartography – Concept Publishing company – New Delhi – 2002.
5. Monkhouse F.J. & Wilkinson H.R - Maps and Diagrams- Methuen, London - 1994.
6. Dr. Pijushkanti Saha & Dr. ParthBasu - Advanced Practical Geography – A Laboratory Manual - Books&Allied Pvt.Ltd,Kolkatta - 2004.
7. Singh and Kanunja - Map work and Practical Geography –Central Book Depot –Allahabad – 1979
8. Singh R.L - Elements of Practical Geography – Kalyani Published New Delhi - 1979.

UNITS	TOPIC	Hrs/ Week	MODE OF TEACHING
UNIT I			
	Components of Computer:	2	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Elements	2	Chalk and Talk , Demonstrate the network model through ppt.
	Hardware and Software	2	Chalk and Talk , Demonstrate the network model through ppt
UNIT II			
	Operating system	2	Chalk & talk Demonstrate the through ppt. Group Discussion
	Files Processing	2	Chalk & talk Demonstrate the through ppt. Group Discussion
	Folders Processing	2	Chalk & talk Demonstrate the through ppt. Group Discussion
UNIT III			
	Micro Soft Office:	2	Demonstrate the through ppt. Group Discussion
	Word – Excel	2	Demonstrate the through ppt. Group Discussion
	Power Point.	2	Demonstrate the through ppt. Group Discussion
UNIT IV			
	Computer Remote Sensing: Digitization	2	Chalk & talk Demonstrate the through ppt. Group Discussion.
	Design and Layout	2	Chalk & talk Demonstrate the through ppt. Group Discussion
	Reproduction	2	Chalk & talk Demonstrate the through ppt. Group Discussion
UNIT V			
	Computer GIS:	3	Chalk and Talk , Demonstrate the network model through maps and ppt.
	Raster Data – Vector data	3	Demonstrate the through ppt. Group Discussion.
	GIS software		Demonstrate the ppt.

Course Out comes (Cos)	Programme Outcomes (Pos)							Programme Specific Outcomes (PSOs)							Mean scores of Cos
	PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7	
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CO3	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
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CO5	4	4	4	4	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 Relationship)

Mapping	1-20%	21-40%	41-60%	61-80%	81-100%
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BLOOM'S TAXANOMY	INTERNAL	EXTERNAL
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UNDERSTANDING	30%	30%
APPLY	20%	20%

Course Designer: Mrs.N.Pothumani