



GOVERNMENT COLLEGE FOR WOMEN (A)

KUMBAKONAM - 612001



B.SC. GEOGRAPHY

Curriculum Structure

&

Syllabus

(under CBCS)

**(Applicable to the candidates admitted from the academic year
2018-19 onwards)**

GOVERNMENT COLLEGE FOR WOMEN (A), KUMBakonam

DEPARTMENT OF GEOGRAPHY

B.Sc. GEOGRAPHY – COURSE STRUCTURE UNDER CBCS

(For the candidates admitted from the academic year 2018-2019 onwards)

Eligibility: +2 pass with any group

Sem	Course	Subject Code	Title of the Paper	Ins. Hours	Credit	Marks
I	Part I –Language	17GT1	Tamil	6	3	100
	Part II- Language	17GE1	English	6	3	100
	Part III- Core Course I	18GC101	World Regional Geography	6	5	100
	Part III Core Course II	18GC202P1	Practical I Representation of Relief and Map Making	3	-	-
	Allied Course I	18G1A1	Cartography I	6	4	100
	Allied Course II	18G2A2P	Allied Practical I - Cartography II	3	-	-
	Total				30	15
II	Part I –Language	17GT2	Tamil	6	3	100
	Part II- Language	17GE2	English	6	3	100
	Part III Core Course II	18GC202P1	Practical I Representation of Relief and Map Making	3	5	100
	Part III Core Course III	18GC203	Climatology	5	5	100
	Allied Course II	18G2A2P	Practical I Cartography II	2	3	100
	Allied Course III	18G2A3	Geography of Tourism	4	3	100
	Part IV	UVE	Value Education	2	2	100
	Part IV	UGCES	Environmental Studies	2	2	100
	Total				30	26
III	Part I –Language	17GT3	Tamil	6	3	100
	Part II- Language	17GE3	English	6	3	100
	Part III Core Course IV	18GC304	Geomorphology	6	5	100
	Part III Core Course V	18GC405P2	Practical I -Climatic Diagrams and Weather Report	3	-	-
	Allied Course IV	18G3A4	Statistics I	5	4	100
	Allied Course V	18G4A5P	Allied Practical II Statistics II	2	-	-
	Part IV NME	18G3NMEC1	Disaster Management	2	2	100
	Total				30	17

Sem	Course	Subject Code	Title of the Paper	Hours	Credit	Marks
IV	Part I	17GT4	Tamil	6	3	100
	Part II	17GE4	English	6	3	100
	Part III Core Course V	18GC405P2	Practical II -Climatic Diagrams and Weather Report	2	4	100
	Part III Core Course VI	18GC406	Oceanography	5	4	100
	Allied Course V	18G4A5P	Allied Practical II Statistics II	3	3	100
	Allied Course VI	18G4A6	Statistics III	4	3	100
	Part IV NMEC -II	18G4NMEC2	Agricultural Geography	2	2	100
	Part IV SBEC I	SBEC1	Inter Personal Skills	2	4	100
Total				30	26	800
V	Part III Core Course VII	18GC507	Human Geography	6	5	100
	Part III Core Course VIII	18GC508	Geography of Resources	5	4	100
	Part III Core Course IX	18GC509	Geography of India	5	4	100
	Part III Core Course X	18GC510	Biogeography	5	4	100
	MBEC I	18G5EC3:1	MBEC-I Physical Geography for Competitive Examinations	5	5	100
		18G5EC3:2	MBEC-I Social Geography for Competitive Examinations			
	Part IV - SBEC II	SBEC2	Office Management	2	4	100
	Part IV - SBEC III	SBEC3	Office Communication	2	4	100
Total				30	30	700
VI	Part III Core Course XI	18GC611P3	Practical III Map Projection and Surveying	6	5	100
	Part III Core Course XII	18GC612	Geography of Tamil Nadu	6	5	100
	Part III Core Course XIII	18GC613P4	Prac. IV Interpretation of Topographical Maps, Aerial Photos and Satellite Imageries	6	5	100
	MBEC II	18GC6EC4:1	MBEC-II Agricultural Geography	5	5	100
		18GC6EC4:2	MBEC-II Geography of Srilanka			
	MBEC III	18GC6EC5:1	MBEC-III Population Geography	6	4	100
		18GC6EC5:2	MBEC-III Remote sensing and GIS			
	Part IV-Naan Mudhalvan Course	23NM6ER	Employability Readiness	2	2	100
		Extension Activities	-	1		
Part IV	GS	Gender Studies	1	1	100	
Total				30	26	600
GRAND TOTAL				180	140	3800

SEMESTER I

CORE COURSE I

WORLD REGIONAL GEOGRAPHY

OBJECTIVES: *World Regional Geography provide a comprehensive introduction to help instructions and students understand the thematic approach to geography that they as provided in the text. The specific unique characteristics of places related to their culture, economy, topography, climate, politics and environmental factors such as their different species of flora and fauna. Also, regional geography also studies the specific boundaries between places.*

UNIT I

Regions: Definition – Types and characteristics: Formal - functional – physical –cultural – Economic – Micro – Macro.

UNIT II

World Regions: Major Climatic Regions of the World:- Location and Characteristics Features; Equatorial Region: Highland and Lowland regions: Tropical Region: Monsoon Type, Tropical Grass lands, Tropical Desert.

UNIT III

Cool Temperate Region: British Type or Marine West coasts, Siberian Type and Laurentian Type.

UNIT IV

Warm Temperate Region: Mediterranean Type, China Type and Temperate Grassland Region.

UNIT V

Polar Regions: Highland or Taiga type, Lowland or Tundra type. Changing Scenario of Antarctic Continents.

REFERENCES:

1. Oliver H.Heintzelman, Richard M. Highsmith J.R (1965) – World Regional Geography, Printice Hall of India (P) Ltd, New Delhi.
2. Roger Minshull (1967) Regional Geography: Theory and Practice, Hutchinson University Library, London.
3. Khanna and Gupta – Economic and Commercial Geography.

SEMESTER - I

CORE COURSE II

PRACTICAL I REPRESENTATION OF RELIEF AND MAP MAKING

OBJECTIVES:

UNIT I

Scales: Meaning – Conversion of Scales – Construction of Simple Linear Scale, Comparative Scale, Diagonal Scale and Time Scale.

UNIT II

Enlargement and Reduction of Maps – Square and Similar Triangular Methods. Compilation of Maps.

UNIT III

Representation of Relief Features on Map: Spot Height, Bench Mark, Hachuring, Triangulation station, Hill Shading and Layer Tilting – Form Lines.

UNIT IV

Contours: Drawing of cross section – representation of land forms.

REFERNCES:

- 1. S. Jayachantran. practical Geography (Tamil Edition) Tamil Nadu Text Book Society, Chennai.**
- 2. Z.A .Khan (1998), Text Book of practical Geography, concept publishing Company.**
- 3. B.S. Negi (1995) Text Book of practical Geography, Kedar Nath, Ramnath, Meerut.**
- 4. Gopal Singh (1996) Map Work Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi**
- 5 .F.J. Monk house and H.R. Wilkinson, (1980) Maps and Diagrams, B.I. Publications, New Delhi.**

SEMESTER I

ALLIED COURSE I

CARTOGRAPHY I

OBJECTIVES: *To develop an understanding of cartography (earth-map relationship, map design, sources of data). To explore the students to the integration of computers, automated surveying, remote sensing, GPS and GIS for the cartographic process.*

UNIT-1

Cartography – Definition , Nature, Scope and Significance of Cartography – Science and art of Cartography - Cartography as a Science of human communication - Major branches of Cartography; Types of maps and Uses.

UNIT-2

Historical Development of Cartography: Ancient, Middle, Renaissance, Reformation and Recent Periods.

UNIT-3

Cartographic Drawing Materials; Map Compilation and generalization – Enlargement and Reduction - Procedures of map compilation - pull-ups - Generalization of physical and cultural details – finalization.

UNIT-4

**Map design and Layout: Principles of Map design – Constraints in map design
Symbolization : Point, Line and Area Symbols – Map Format – Lettering and Toponymy.**

UNIT-5

Map reproduction – Processes: Duplicating Processes and Printing Processes. Computer Assisted Cartography -Merits and demerits of Computer Cartography.

REFERNCES:

1. Gregory.S- Statistical Methods and the Geographer, Longman.S, London (1963)
2. Lawrence. G.R.P.- Cartographic Methods , Methuen, London (1968).
3. Singh, R.L. and Dutt.P.K.- Element of practical Geography, Kalyani publishers and New Delhi (1979)
4. Misra. R.P. and Ramesh. A- Fundamentals of Cartography, memillan co., New Delhi (1986).
5. Robinson. A.H.et al – Elements of cartography. John Wiley & Sons. U.S.A (1995).
6. Khan.Z.A. Text Book of pratical Geography Concept New Delhi (1998).

SEMESTER I

ALLIED COURSE II

PRACTICAL - CARTOGRAPHY II

UNIT I

Latitude and Longitude – Time Conversion - International Date Line - Direction and Bearings.

UNIT II

Measurement of Distance: Thread, Divider and Rotometer methods - Measurement of Area- Square and strip methods - Function of Planimeter.

UNIT III

Qualitative Distribution Maps – Types: Chorochromatic Maps, Simple Colour Maps, Choroschematic Maps with Pictorial.

UNIT IV

Quantitative Distribution Maps – Types: Dot Maps: Mono dot, Multiple Dot –Located Diagrams – Bar Graph, Circle, Sphere, Flow Maps, Volume Maps.

REFERNCES:

- 1. S. Jayachantran. practical Geography (Tamil Edition) Tamil Nadu Text Book Society, Chennai.**
- 2. Z.A .Khan (1998), Text Book of practical Geography, concept publishing Company.**
- 3. B.S. Negi (1995) Text Book of practical Geography, Kedar Nath, Ramnath, Meerut.**
- 4. Gopal Singh (1996) Map Work Practical Geography, Vikas Publishing Hous Pvt. Ltd., New Delhi**
- 5. F.J. Monk house and H.R. Wilkinson, (1980) Maps and Diagrams, B.I Publications, New Delhi.**

SEMESTER II

CORE COURSE III

CLIMATOLOGY

OBJECTIVES: *Its aims to study the nature of climate. The subject of climatology involves a lot of the atmosphere's structure and how meteorological parameters (temperature, air pressure, humidity) in addition to the basic understanding of the atmospheric processes.*

UNIT I

Definition and Significance of Climatology – Climatic Elements – Weather and Climate – Composition and Structure of Atmosphere – Insolation.

UNIT II

Horizontal and Vertical Distribution of Temperature – Range of Temperature – Diurnal, Seasonal, and Annual – Heat Budget.

UNIT III

Atmospheric Pressure and Winds: Vertical, Horizontal Distribution of Pressure – Winds: Local – Monsoon – Planetary - Jet stream.

UNIT IV

Atmospheric Moisture – Forms of Precipitation and Types of Rainfall – Clouds – Types and Classification: Clouds – Air Masses - Fronts.

UNIT V

Cyclone : Tropical, Temperate, Anticyclones. Climatic Classification of Koppen and its significance.

REFERENCES

- 1 .Lal,D.S.,(1989): Climatology, Chaitanya publisher's House, Allahabad.
2. Critchfield,H.,(1975): General Climatology, Prentice-Hall, New-York.
3. Das,R.K.,(1968): The Monsoons, National Book Trust, New Delhi.
4. Mather,J.R.,(1974): Climatology, McGraw Hill, New York.
5. Kumaraswamy.K.,et al.,(2003): Climatology (Tamil Edition), Grace Publishers, Kumbakonam.

SEMESTER II

ALLIED COURSE III

GEOGRAPHY OF TOURISM

OBJECTIVES: To conserve and products the natural environment as well as assuring respect of customs, traditions and cultural heritage. Creates community awareness, understanding and support for tourism development.

UNIT – I

Meaning & Nature of Tourism - Basic Concepts, Components –Types of Tourism – Hotel and Types – Motivations of Tourism.

UNIT –II

Historical growth – Prehistoric – Middle Ages – Modern Period. Causes and Consequences of Tourism – Technological Causes.

UNIT-III

Role of Travel Agency – Travel Agent – Tour Operators – Travel Organization Planning & development – Importance of Tourism Planning.

UNIT – IV

International Tourism Organizations: International Union of Official Travel Organization – World Tourism Organization – Pacific Asia Travel Association (PATA).

UNIT – V

Tourism Places in India: Delhi, Mumbai, Kolkatta, Bangalore and Chennai. Tourism Places in Tamilnadu: Climate Centre (Nilgiris and Kodaikkanal), Cultural Centre (Thanjavur and Mahabalipuram) and Sancturies.

REFERENCES :

- 1. Tourism Development – Principles and Principles and Practices, Bhatia A.K.**
- 2. Dynamics of Tourism – T.N. Kaul.**
- 3. An Introduction to Travel and Tourism – Preamnathsen.**
- 4. Tourism and Development – Bryden and John M.**
- 5. Tourism Past. Present and Future – Brykare. A.J. and Medliks.**
- 6. The Social implication of Tourism Development – Buseller R.V**
- 7. Tourism Management and Marketing A.K. Bhatia**

SEMESTER - III

CORE COURSE - IV

GEOMORPHOLOGY

OBJECTIVES: *The main objective of the course is to introduce students to basic concept of geomorphology. It also considers recognizing the landforms and understanding the natural processes including internal and external.*

Unit I

Geomorphology – Nature and scope, development of Geomorphology – Solar system and Origin of Earth: Kant and Laplace theories – Interior of the Earth.

Unit II

Geomorphic Processes: Internal Processes: Diastrophism - Fold, Fault and cracks. Earthquakes and Volcanoes. External Processes: Weathering and Mass wasting.

Unit III

Rocks: Igneous, sedimentary and metamorphic - Wegner's Continental drift Theory - Plate Tectonic Theory.

Unit IV

Geomorphic Agents and Processes – Rivers: Erosion, Transportation and Depositional features. Davis concept of cycle of Erosion – Erosional and depositional features of Glacier.

Unit V

Aeolian Landscapes – Waves Action - Work of Underground water – Springs and Gaysers - Karst Topography.

REFERENCES :

- 1. Balbir Singh Negi, Physical Geography, S.J. Publications Meerut, 1993.**
- 2. Das Gupta, A and Kapoor, A.N, Principles of Physical Geography, S.C. Chand & Company Ltd, 2001.**
- 3. Strahler A.H and Strahler A.N – Modern Physical Geography, New York, John Wiley and Sons. INC, 1975.**
- 4. Robinson H., Physical Geography, Mac Donald and Evans Ltd, 1971.**
- 5. Thorn Bury. D., - Principles of Geomorphology, Wiley Eastern Ltd, New Delhi, 1984.**
- 6. Sivamurthy, A.,(1964): Geomorphology (Tamil Edition),Tamil Nadu Text book Society, Chennai.**

7. **Sharma. V.K., Earth Surface Process and forms, Tata Mc Graw – Hill Publishing Company Ltd, New Delhi, 1986.**

SEMESTER III

CORE COURSE V

PRACTICAL II CLIMATIC DIAGRAMS AND WEATHER REPORT

UNIT I

Diagrammatic representation of Climatic Data – Types of Line and BarDiagrams. Drawing of Isopleth Maps (Isotherm, Isobar and Isohytes)

UNIT II

Simple Climatic Diagrams – Climatic Graphs, Taylor’s and E.E. Foster’s Climograph, Hythergraph, Ergograph, Rainfall Dispersion Diagram.

UNIT III

Wind Roses – Simple Wind Rose Diagram, Star Wind Rose Diagram, Superimposed Wind Rose Diagram and Octagonal Wind Rose Diagram.

UNIT IV

Weather Symbols – Beaufort Scale – Station Model – Interpretation of Indian Daily Weather Report (All Seasons).

REFERENCES:

- 1. Gopal Singh, (1996): Map Work Practical Geography, Vikas PublishingHouse, New Delhi.**
- 2. Jayachandran, (1964): Practical Geography (Tamil Edition) Tamil Nadu Text Book Society, Chennai.**
- 3. Khan, Z.A., (1998): Text Book of Practical Geography, Concept Publishing Company, New Delhi.**
- 4. Monkhouse, F.J. and H.R. Wilkinson, (1980): Maps and Diagrams, B.I Publications, New Delhi.**
- 5. Negi, B.S., (1995): Text Book of Practical Geography, Kedar Nath publications, Meerut.**

SEMESTER III

ALLIED COURSE IV

STATISTICS I

OBJECTIVES: The basic aim of statistical study is to provide methods of organizing and simplifying data. The main objective is to equip students with consequently requisite quantitative skills that they can employ and build on in flexible ways.

UNIT I

Fundamentals of Statistics and limitations of Statistics – Uses of Statistics in Geography, Collection of Data - Primary and secondary.

UNIT II

Classification – Different types – Objectives – Tabulation of Data –Types of tables - Frequency distributions – simple problems.

UNIT III

Diagrammatic and Graphic Representation – Difference – Bar Diagrams, Simple, Compound and Component – Histogram, Frequency Polygon and Ogive curve.

UNIT IV

Measures of Central Tendency – Properties – Mean, Types of Mean- Median, Mode. Geometric Mean and Harmonic Mean.

UNIT V

Measures of Dispersion – Range, Quartile Deviation, Mean Deviation, Standard Deviation and Coefficient of Variation.

REFERENCES:

- 1. S.P. Gupta-Statistical Methods, Sultan chand & Sons. New Delhi. Dievairakkam**
- 2. Gregory. S Statistical Methods and the Geographer, London 1963.**
- 3. Harmond and Megullah – Quantitative Techniques in Geography.**
- 4. Aslam Mahmood – Statistical Methods in Geographical Studies.**

SEMESTER III

ALLIED COURSE V

PRACTICAL II – STATISTICS II

UNIT I

Analysis of frequency distribution – Frequency table – Graphs, Histogram, Polygon, Frequency Curve, Ogive or Cumulative Frequency Curves.

UNIT II

Time Series Analysis – Moving Average – Semilog and Log Log Graph.

UNIT III

Test of distribution in Space – Mean, Median, Mode – Correlation –Types – Karl Pearson`s Coefficient of Correlation, Rank Correlation – Regression: Regression equations.

UNIT IV

Hypothesis Testing – Chi-square Test, ‘t’-Test and ‘F’ Test.

REFERENCES:

- 1. Gregory .S (1971) – Statistical Methods in Geography Orient Longmans Press.**
- 2. Hammond & Me Gullah – Quantitative Techniques in Geography.**
- 3. Mahmood & Aslam – Statistical Methods in Geographical Studies.**
- 4. Monkhouse F.J. – Maps and Diagrams.**
- 5. Smith D.M. – Patterns in Human Geography.**

PART IV

NON MAJOR ELECTIVE COURSE I

DISASTER MANAGEMENT

OBJECTIVES: The study of this paper aims to reduce or avoid, the potential losses from hazards, assure prompt and appropriate assistance to victims of disaster and achieve rapid and effective recovery. The methods used to achieve this include hazard and vulnerability analysis, preparedness, mitigation and prevention measures, and the use of predictive and warning systems.

UNIT I

Disaster : Meaning, Scope and Significance of Disaster; Types of Disaster: Natural and Man-made Disasters.

UNIT I

Disaster Management: Definition of Disaster Management – Basic Concept and Methods used in Disaster Management.

UNIT III

Disaster Assessment: Risk and Vulnerabilities: Disaster Risk Management Process- Tools for assessing hazards, Vulnerability factors and analysis.

UNIT IV

Disaster Prevention: Need for Prevention of disaster risk – role of public awareness – preparation of prevention and mitigation strategies.

UNIT V

Preparedness planning and policy initiatives: Early Warning Systems – Damage Assessment – Policy for the reduction of disaster consequences.

REFERENCES:

- 1. Comfort Louise K.(ed.) Managing Disasters: Strategies and policy perspectives, Durham. NC: Duke University Press.**
- 2. Abbott, Patrick L., 1996, Natural Disasters, Wm. C. Brown Publishing Co., 438pp.**
- 3. Coch. Nocholas K., 1995 Geohazards, Natural and Human, Prentice Hall, 481pp.**
- 4. Murck, Barbara W., Brain J. Skinner, and Stephen C. Porter, 1997, Dangerous Earth. An Introduction to Geologic Hazards.**

5. Skinner, Brain. J and Stephen C. Porter, 1995, The Dynamic Earth, An Introduction to Physical Geology, 3rd Ed., John Wiley & Sons, Inc.,

SEMESTER IV

CORE COURSE VI

OCEANOGRAPHY

OBJECTIVES: *The main aim of the course is to understanding the chemical, physical, geological and biological processes which act on the ocean's surface and to recognize the submarine forms, the seawater composition and properties.*

UNIT – I

Oceanography: Nature, Scope and Significance – Distribution of Land and Sea – Surface configuration of the Ocean floor – Continental shelf, Continental slope – Deep sea plains and Oceanic Deeps.

UNIT – II

Major Relief Features of the Atlantic Ocean, Pacific Ocean and Indian Ocean.

UNIT – III

Temperature of the Ocean water, Salinity and Density of Sea water (Pacific, Atlantic and Indian Oceans).

UNIT – IV

Dynamics of Ocean Water: Currents, Waves and Tides – Types and Effects.

UNIT – V

Ocean Deposits: Classification and distribution – Coral reefs – Types -Conditions for the Growth. Marine Resources: Types – Distribution and Uses.

REFERENCES:

- 1. Ramasamy.G (1970): Oceanography (Tamil Edition), Text Book of Society, Chennai.**
- 2. Nagi.B.S.(1995) Climatology and Oceanography Kedar Nath Ram Nath, Meerut.**
- 3. Siddhartha.K (1998) The Oceans, CDER Delhi.**
- 4. Tilkha R.N. (1999), Physical Geography, Kedar Nath Ram &co., Meerut.**
- 5. Savindra singh (2002) Physical Geography.**
- 6. Dr.Subbiah - Oceanography (Tamil Edition).**

SEMESTER IV

ALLIED COURSE VI

STATISTICS III

OBJECTIVES: *The main objective of statistical techniques and procedures are applied in all fields of academic research; wherever data are collected and summarized or wherever any numerical information is analyzed or research is conducted, statistics are needed for sound analysis and interpretation of results.*

UNIT – I

Skewness and Kurtosis – Coefficient of Skewness – Bowley’s and Pearson’s - Simple Problems.

UNIT – II

Correlation – Scatter diagram, Karl Pearson’s Coefficient of correlation – Rank Correlation – Spearman’s Rank Correlation.

UNIT – III

Regression – Difference between Correlation and Regression – Regression line (two variables only) – Regression Coefficient – Simple problems.

UNIT – IV

Curve fitting – Concept – Principles of Least Squares – Fitting of Straight line and Parabola.

UNIT – V

Probability – Definition, Probability Theorems – Addition Theorem, Multiplication Theorem – Probability Distribution – Binomial distribution, Normal distribution – Problems.

REFERENCES:

1. S.P. Gupta – Statistical Methods, Sultan Chand & Sons, New Delhi.
2. Gregory .S. – Statistical Methods and the Geographer London 1963
3. Harmond and megullah – Quantitative Techniques in Geography.
4. Aslam Mahmood – Statistical Methods in Geographical Studies.

PART IV

NON - MAJOR ELECTIVE COURSE II

AGRICULTURAL GEOGRAPHY

OBJECTIVES: *The performance of various crops in a country or region is not uniform. There are inter regional, intra-regional, intra-village and intra-farm variations in the production and productivity of different crops are simplify studying in non major students.*

UNIT I

Agriculture : Meaning - Factors influencing of Agriculture (Physical, Cultural, Socio-economic factors) – Approaches of Agriculture.

UNIT II

Soil: Soil Classification – Erosion and Conservation. Irrigation, Types and Methods and the need.

UNIT III

Agricultural crops: Food Crops – Rice and Wheat. Plantation Crops: Tea, Coffee and Rubber. Commercial Crops: Cotton, Jute and Sugar cane.

UNIT IV

Agricultural regions: Methods of Delineation – Agricultural regions of the World (Wittlessey's) – Agricultural region of India and their characteristic features.

UNIT V

Vonthunen's Theory of agricultural location and its recent modifications. Agricultural problems in India.

REFERENCES:

- 1. Morgan W.B. and Munton R.Jc(1971) Agricultural Geography, Methuen, London.**
- 2. Majid Hussain (1971) Agricultural Geography, Inter-India Publications, Delhi.**
- 3. Coh Cheng Leong, Human and Economic Geography, Oxford University Press, Kolalumthur.**
- 4. Misra. R.P.(1986) Agricultural Geography, Heritage Publishers, New Delhi.**
- 5. Ali Mohammed (1978) Studies in Agricultural Geography, Rajesh**

Publications, New Delhi.

6. Gregor and Howard F (1979) *Geography of Agriculture: Themes in Research* Printice Hall, New Jersey.

SEMESTER V

CORE COURSE VII

HUMAN GEOGRAPHY

OBJECTIVES: The objective of human geography is the student known to human environment relationship, how to adopt to environment, and human modify the environment.

UNIT I

Scope and Content of Human Geography, Concepts of Determinism, Possibilism, Neo-Determinism and Probabilism.

UNIT II

Races: Caucasoid, Mongoloid, Negroid and their Characteristics. Major Regional Tribes in the World.

UNIT III

Origin of Settlements Types: Rural and Urban Settlements – Rural Settlement: Definition – Functions of Rural Settlements – Patterns of Rural Settlements.

UNIT IV

Urban Settlements – Definitions of Urban Places – Site and Situation – Functional Classification of Towns.

UNIT V

Origin and Growth of Urbanization in the World – Problems associated with Urbanization – Urbanization in India – Indian Metropolitan Cities (Delhi, Kolkata, Mumbai and Chennai)

REFERENCES:

- 1. Coh Cheng Leone Human and Economic Geography Oxford University Press Delhi.**
- 2. Peripillou A.V.Human Geography Long man Group Pvt.Lid.,**
- 3. G.T.Trewartha (1969) Geography of Population, World Patterns John Wiley and Sim Inc.**
- 4. R.L.Singh (1972) Readings in Rural Settlement Geography. Benaras Hindu University, Varanasi.**
- 5. K. Siddhartha and SD. Mukhanee(1998) Cities and Urbanisation System**

SEMESTER V

CORE COURSE VIII

GEOGRAPHY OF RESOURCES

OBJECTIVES: The objectives of this course are to give an overview of type and distribution of mineral resources, energy resources, industrial resources, trade and transportation at global level. The gives a broader out look about the availability of renewable and non-renewable resources to the students.

UNIT I

Resources –Definitions – Types: Renewable and non renewable Resources – Resources utilization – conservation of resources.

UNIT II

Agricultural: Production and Distribution of Rice, Wheat, Cotton , Jute, Sugarcane, Tea, Coffee and Rubber – Dairy Farming – Distribution and characteristics – Production and distribution of fisheries.

UNIT III

Mineral Resources – Iron ore, Bauxite, Gold and Manganese. Power Resources:Types- Thermal-Hydel-Atomic. Non-Convectional energy resources.

UNIT IV

Manufacturing Industries: Locational factors of Industries – Distribution of Iron and Steel Industries – Cotton Textiles – Sugar Industries – Chemical, Aircraft, Automobiles and Ship Building.

UNIT V

Transportation and Trade: Importance –modes of Transport –Trade: Internal and International – International Trading Organization – WTO - Impact of Globalization on Trade.

REFERENCES:

- 1. Coh Cheng Leong – Economic and Human Geography, Oxford University Press, New Delhi.**
- 2. Clawson Marion (Ed) Natural Resources and International development. New York.**

3. S.K. Sadhukhan (1994) Economic and Geography an Appraisal of Resources, S.Chand & Co., Chennai.

4. K.Khanna & V.K. Gupta (1998) Economic and Commercial Geography Sultan Chand & Sons, New Delhi.

SEMESTER V

CORE COURSE IX

GEOGRAPHY OF INDIA

OBJECTIVES: To understand the concept of place and how it is connected to people's sense of belonging to the physical environment, landscape and culture. To understand regional development and how economic opportunities are captured, retained and expanded.

UNIT I

Location – Major Physiographic Division – Drainage System – Climate – Soil and types – Natural Vegetation.

UNIT II

Irrigation: types – Multi Purpose Projects – Distribution, Characteristics and Problems of Indian Agriculture – Production of Major Crops: Rice, Wheat, Sugarcane, Cotton, Jute, Coffee and Tea.

UNIT III

Distribution and Production of Mineral Resources – Iron ore, Manganese, Bauxite, Mica and Copper. Fuel Resources – Coal, Petroleum, Natural Gas. Power Resources – Hydel, Thermal and Nuclear.

UNIT IV

Location and Distribution of Major Industries: Iron and Steel, Cotton Textiles, Sugar, Cement, Automobiles and Ship Building.

UNIT V

Population: Distribution, Density and Growth – Effects of over population –Problems. Transport: Road, Rail and Air Transportation. Major Ports – Trade.

REFERENCES:

1. Singh Gopal (1970) – Geography of India, Atmaram & Sons, New Delhi.
2. Spate, O.H.K and Learmonth A.T.A., 1954 – India and Pakistan – Methues & Co., India.
3. Arunachalam.B (1996) – Economic Geography of India – Bombay.
4. Sharma (1998) – Economic and Commercial Geography of India, Vikas Publishing House Private Limited – New Delhi.

5. Tiwari, (2002), Geography of India, Prayag Pustak Bhawan, Allahabad.

SEMESTER V

CORE COURSE X

BIOGEOGRAPHY

OBJECTIVES: *The main aim of the study is to introduce th students about the distribution of species and ecosystems in geographic space and through geological time. They also understand the organisms and biological communities often vary in a regular fashion along geographic gradients of latitudes, elevation, isolation and habitat area.*

UNIT I

Definition, Scope and Significance of Biogeography – Basic Ecological Principles: Darwin’s Theory of Evolution – Concepts of Biome, Ecotone and Community.

UNIT – II

Origin of Fauna and Flora – Plant and Animal evolution through Geological times – Distribution of Plant life on Earth and its relation to Soil types, Climates and Human Practices.

UNIT – III

Problems of extinction of plant and animal life – Habitat decay and their conservation – desertification, consequences and management. Industrial effluent and its effect on fresh water biology and management practices (Special Reference to India).

UNIT –IV

Major Biomes – Equatorial Forest – Tropical Grassland – Temperate Grassland and Tropical Deserts.

UNIT – V

Study of Ecological regions of Himalayas and Western Ghats - Plant and Animal life, their interrelations, Problems, Conservation and Management Measures.

REFERENCES:

- 1. Robinson. H – Biogeography, ELBS: McDonald and Evana, London – 1982.**
- 2. Nigel Pears – Basic Biogeography, Longman, London and New York – 1985.**
- 3. Newbegin.I – Plant and Animal Geography – Retheran – U.K.**
- 4. Saxena.H.M. – Environamantal Geography, Rawat, Jai**

SEMESTER VI

CORE COURSE XI

PRACTICAL III – MAP PROJECTION AND SURVEYING

UNIT I

Map Projection – General Principles – Classification – Identifications – Transformation. Construction, Properties, Limitations and uses of the following projections: Conical - One Standard, Two Standard, Bonne's and Polyconic.

UNIT II

Construction, Properties, Limitations and uses of the following projections: Cylindrical – Simple, Equal area and Mercator.

UNIT III

Construction, Properties, Limitations and uses of the following projections: Zenithal : Gnomonic, Stereography, Orthographic, Equidistant, Equal Area (Polar Cases only) Conventional : Sinusoidal, Mollweide's (Normal Cases only), Sinusoidal interrupted and Mollweide interrupted.

UNIT IV

Surveying : by

- 1. Chain**
- 2. Prismatic Compass**
- 3. Plane Table**
- 4. Dumpy Level**
- 5. Indian Clinometer,**
- 6. Abney Level.**

REFERENCES:

- 1. Kellaway George. P: Map Projections – Methuen &Co. – London.**
- 2. Streets, J.A. – Map Projections, University London Press, London.**
- 3. R.L. Singh – Practical Geography – Kalyani Publishers, New Delhi.**
- 4. Jayachandran.S – Practical Geography (Tamil Edition).**
- 5. Khan – Text Book of Practical Geography.**
- 6. Khulla – Elements of Practical Geography – Kalyani Publications.**

SEMESTER VI

CORE COURSE XII

GEOGRAPHY OF TAMIL NADU

OBJECTIVES: *The main objective of geography of Tamilnadu is essential for administration, physiographical division, climate, agriculture, mineral resources, industries, population, transport etc.*

UNIT I

Location – Major Physiographic Division – Drainage System – Climate – Soil types – Natural Vegetation.

UNIT II

Irrigation: types – Agriculture: Production and Distribution of Rice and Sorghum – Bajra and Pulses – Groundnut and other Oil seeds – Sugarcane and Cotton. Fisheries – Livestock – Dairy development – Poultry development.

UNIT III

Distribution and Production of Mineral Resources – Iron ore, Manganese, Bauxite, Mica and Copper. Fuel Resources – Coal, Petroleum, Natural Gas. Power Resources – Hydel, Thermal and Nuclear.

UNIT IV

The industrial scene: Textiles: Cotton, silk – Chemical and Fertilizer Industries – Leather-Automobiles – Industrial Zones.

UNIT V

Population: Distribution, Density and Growth – Population Composition. Transport: Road, Rail and Air Transportation. Major Ports – Trade.

REFERENCES:

1. Basic resources Atlas of Tamil Nadu Pub: University of Madras
2. Tamil Nadu Economic Appraisal Pub: Finance Department Govt. of Tamil Nadu
3. A Geography of India – Gopal Singh
4. Publications of Tamil Nadu Text Book Society, Madras

SEMESTER VI

CORE COURSE XIII

**PRACTICAL IV-INTERPRETATION OF TOPOGRAPHICAL MAPS,
AERIAL PHOTOS AND SATELLITE IMAGERIES**

UNIT – I

Study of conventional symbols used in Indian topographical maps – Marginal Information of India topographical maps – Interpretation of Indian topographical maps.

UNIT – II

Aerial Photographs – Types – Elements of Photo Interpretation – Marginal Information of Aerial Photos - Interpretation of Physical and Cultural features in Aerial Photos.

UNIT – III

Satellite Imageries – Marginal Information of Satellite Imageries - Interpretation of Physical and Cultural features in Satellite Imageries.

UNIT – IV

Comparative study of Marginal Information of Topographical sheets, Aerial Photographs and Satellite Imageries.

REFERENCES:

- 1. Raghunandar Singh (1965), Map Work and Practical Geography, Central Book Depot, Allahabad.**
- 2. Singh R.L. and Rana P.B. Singh (1998) Elements of Practical Geography, Kalyani Publishers, New Delhi, Ludhians.**
- 3. Negi B.S. (1998) Practical Geography Geography, Kedarnath and Ramnath, Meerut.**
- 4. G.H. Dory – Map Interpretation – Sir Issue Pitman & Sons Ltd. – London.**

MAJOR BASED ELECTIVE COURSE

PHYSICAL GEOGRAPHY FOR COMPETITIVE EXAMINATIONS

OBJECTIVES: *The acquaint the pupils with living conditions of men in different parts of the globe. To enable the pupils to acquire a knowledge of natural resources. To develop pupils an understanding of how environment and climatic factors have influenced our life.*

UNIT – I

General Geography : Solar System – Rotation and Revolution of the Earth, Eclipses, Latitudes and Longitudes, Time zones - International Date Line – Continents and Oceans.

UNIT – II

Geomorphology : Major Landforms – Mountains, Plateaus and Plains. Erosional and Depositional Features : 1) River , 2) Glacier, 3)Wind.

UNIT – III

Climatology: Weather and Climate Elements of climate Atmosphere Composition & Structure – Temperature, Pressure, Wind, Humidity – Precipitation.

UNIT – IV

Oceanography : Land and Sea Distribution: Relief features of Ocean – Bottom Continental Shelf, Slope, Abyssal plain, Trenches and Deeps – Waves, Tides, Currents Deposits.

UNIT – V

Biogeography : Meaning, Biosphere as a system, Types and Functions of Ecosystem; Geobiochemical Cycles: Hydrological, Carbon, Oxygen, Nitrogen and Phosphorous Cycles.

REFERENCES:

1. N.Tikka(1998): Physical Geography, Kedar Nath, Ram Nath, Meerut.
2. P.Dayal(1995): Text book of Geographology, Shukla Book Depot, Patna.
3. Glen. T, Trewarthyaq and Hom.L.A. An Introduction to Climate, Megrow Hill Ltd, Looms New York.
4. D.S>Lal(1998): Climatology, Chaitanya Publishing House, Allahabad.
5. Dr.K.Kumarasamy er.al Climatology (Tamil Edition)
6. Critichfieldl. H: General Climatology – Prentice Hall of India Pvt., New Delhi.
7. Savindra Singh: Biogeography.

MAJOR BASED ELECTIVE COURSE

SOCIAL GEOGRAPHY FOR COMPETITIVE EXAMINATIONS

OBJECTIVES: *To understand the origin, growth and development of social geography. To learn about the study of people and their cultural activities.*

UNIT – I

Cartography: Meaning, Types and uses of Maps. Map Making – Compilation, Generalization and Finalization.

UNIT – II

Population and Settlement: World Population Distribution, Density and Growth – Factors Affecting them. Rural and Urban Settlements: Site, Situation and Classification.

UNIT – III

Environmental Geography : Meaning - Relation Between Man and Environment. **Pollutions:** Land, Air, Water, Noise - Global Warming and Ozone Depletion.

UNIT – IV

Resource of World: Meaning and Types. **Minerals:** Iron Ore, Mica, Coal, Petroleum and Gold. **Power Station:** Hydro, Thermal and Nuclear.

UNIT – V

Geography of India: Location – Relief – Climate – Soil – Population and Urbanization.

REFERENCES:

1. N.Tikka(1998): Geography of India, Kedar Nath, Ram Nath, Meerut.
2. Kannah & Gupta: Economic & Commercial Geography.
3. Savindra Singh: Environmental Geography.
4. Gosh: Population Geography.
- 5.R.P.Mishra: Fundamentals of Cartography.

MAJOR BASED ELECTIVE COURSE

REMOTESENSING AND GIS

OBJECTIVES: To provide an opportunity for individuals to learn remote sensing and geo information science for the benefit of their professional carrier. This basic course in remote sensing and geographical information system will allow graduates to build their knowledge and practical expertise in remote sensing and GIS technology with independent study and project experience at the certificate level or course.

UNIT I

Remote Sensing : Definition, Types-Aerial, Satellite. Historical Development, Active and Passive Remote Sensing, Platforms, Geostationary and Sun Synchronous orbits, Uses of Remote Sensing.

UNIT II

Electro Magnetic Radiation: Electromagnetic Spectrum -Energy interaction with atmosphere and Earth Surface features (Water, Soil and Vegetation).

UNIT III

Remote Sensing Sensors: Classification of Sensors & Platform Characteristics of LAND SAT, SPOT, IKONOS, Active and Passive sensors and IRS.

UNIT IV

GIS – Definition – Components – DBMS – Vector and Raster models – Spatial Data Input and Editing - GIS analysis – Queries, Buffering, Overlay and Neighbourhood functions.

UNIT V

Applications of RS, GIS and GPS - Resource Mapping – Land and Water Resources, Urban Studies, Disaster Management and Land use Planning.

REFERENCE BOOKS:

- 1. Lillesand T.M. and R.W. Kiefer 1987 Remote Sensing and Image Interpretation John Wiley & Sons. New York.**
- 2. Arthur Carcknell Ladson Hayes September 1991, Introduction to Remote Sensing, Taylor & Francis.**
- 3. Eric C.Barrett, Anton Micallef., October 1991, Remote Sensing for Hazard Monitoring and ;Disaster Assessment: Marine and Coastal Application in the**

Mediterranean Region, Gprdpm & Breach Science Publication.

4. Floyd F. Sabins August 1997, Remote Sensing: Principles of Interpretation. W. H. Freeman & Co.

MAJOR BASED ELECTIVE COURSE

AGRICULTURAL GEOGRAPHY

OBJECTIVES: *To examine the spatial distribution of crops, livestock and other agricultural activities. The cropping patterns and crop and livestock combinations vary in space and time.*

UNIT I

The origin of Agriculture – Geographical factors influencing Agriculture : Physical, Cultural, Social and Economic factors – Agriculture and soil: Soil Classification – Erosion and Conservation – Irrigation, Types and Methods and the need.

UNIT II

Global patterns of farming systems, simple subsistence farming – migratory, sedentary, intensive and extensive, mechanized grain farming – plantation – commercial.

UNIT III

Agricultural crops: Rice, Wheat. Beverage crops: Tea and Coffee – Industrial crops: Cotton and Jute. Cash crops: Sugar cane and Tobacco.

UNIT IV

Agricultural regions: Methods of Delineation – agricultural regions of the World – Agricultural region of India and their characteristic features.

UNIT V

Vonthunen's Theory of agricultural location and its recent modifications. Wittilley's world agricultural classification.

REFERENCES:

1. Morgan W.B. and Munton R.Jc(1971) Agricultural Geography, Methuen, London.
2. Majid Hussain (1971) Agricultural Geography, Inter-India Publications, Delhi.
3. Coh Cheng Leong, Human and Economic Geography, Oxford University Press, Kolumpur.
4. Misra. R.P.(1986) Agricultural Geography, Heritage Publishers, New Delhi.
5. Ali Mohammed (1978) Studies in Agricultural Geography, Rajesh

Publications, New Delhi.

6. Gregor and Howard F (1979) Geography of Agriculture: Themes in Research Printice Hall, New Jersey.

MAJOR BASED ELECTIVE COURSE

POPULATION GEOGRAPHY

OBJECTIVES: *To examine the population geography gives data concerning births and deaths, age and sex distribution etc. useful for various purposes. It provides data for the study of social changes and present economic structure as well as the possibilities of future growth.*

UNIT I

Nature, Scope and Significance of Population Geography – Sources of Population Data – Problems of Data.

UNIT II

World Population: Determination of Population – Distribution, Density and Growth – Recent Trends of World Population.

UNIT III

Composition of Population: Age, Sex, Religion and Language. Composition: Rural-Urban Population, Occupational Structure.

UNIT IV

Migration: Meaning, Classification, Causes and Consequences of Migration, Population Policies of Developed Countries – Indian Population Policies.

UNIT V

Population and Resources: Population and Resource Developments, Population and Environmental Problems.

REFERENCE:

1. Coh Cheng Leone Human and Economic Geography Oxford University Press Delhi.
2. Peripillou A.V.Human Geography Long man Group Pvt.Lid.,
3. G.T.Trewartha (1969) Geography of Population, World Patterns john Wiley and Sim Inc.
4. R.L.Singh (1972) Readings in Rural Settlement Geography. Benaras Hindu University, Varanasi.
5. K. Siddhartha and SD. Mukhanee (1998) Cities and Urbanisation Syste

MAJOR BASED ELECTIVE COURSE

GEOGRAPHY OF SRILANKA

OBJECTIVES: To study and understand regional development and how economic opportunities are captured, retained and expanded to other country.

UNIT I

Srilanka: Location – Physiography – Physical Divisions – Climatic Regions – Drainage.

UNIT II

Soil and their types – landuse in Srilanka – Agriculture – Major Crops – Food Crops, Commercial Crops and Plantation Crops. Agro Region of Srilanka.

UNIT III

Minerals: Distribution – Metallic and Non Metallics – Major Industries – Industrial Regions of Srilanka.

UNIT IV

Population: Distribution, Density and Growth – Sex Composition – Literacy and Religious.

UNIT V

Transportation and Trade: Land, Water and Air Transportation – Internal and International Trade.

REFERENCE:

- 1. Wivis M.S.: A Systematic Geography of World Relations.**
- 2. Wilmore : Groundwork of Modern Geography.**
- 3. Biley and Young : World Vegetation.**
- 4. Minshull : Regional Geography.**
- 5. Kannah & Gupta : Economic & Commercial Geography.**

