DEGREE OF MASTER OF SCIENCE
CHOICE BASED CREDIT SYSTEM (CBCS)
SYLLABUS FOR M.SC. GEOGRAPHY
FOR THE STUDENTS ADMITTED FROM THE
ACADEMIC YEAR 2021–2022 ONWARDS
<table>
<thead>
<tr>
<th>No.</th>
<th>Name</th>
<th>Designation</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td><strong>Dr. P. Thangavelu</strong></td>
<td>Chairman</td>
<td>Assistant Professor and Head Department of Geography A.A.Govt. Arts College Namakkal – 2</td>
</tr>
<tr>
<td>2.</td>
<td><strong>Dr. A. Raja</strong></td>
<td>Member</td>
<td>Associate Professor and Head Department of Geography Govt. Arts College (Auto) Salem – 7</td>
</tr>
<tr>
<td>3.</td>
<td><strong>Mrs. S. Bharathi</strong></td>
<td>Member</td>
<td>Assistant Professor Department of Geography J.K.K. Nataraja College of Arts Science Komarapalayam – 638183, Namakkal (Dt)</td>
</tr>
<tr>
<td>4.</td>
<td><strong>Dr. R. Vasanthi</strong></td>
<td>Member</td>
<td>Assistant Professor &amp; Head Department of Geography Sri Vijaya Vidyalaya College of Arts Sciences Nallampalli, Dharmapuri – 636807</td>
</tr>
<tr>
<td>5.</td>
<td><strong>Dr. R. Jegankumar</strong></td>
<td>University Nominee</td>
<td>Associate Professor and Head Department of Geography Bharathidasan University Tiruchirappalli – 620024</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Dr. R. Jaganath</strong></td>
<td>Member External</td>
<td>Professor and Head Department of Geography University of Madras Chepauk, Chennai – 5</td>
</tr>
<tr>
<td>7.</td>
<td><strong>Thiru. M. Panneer Selvam</strong></td>
<td>Member External</td>
<td>Assistant Professor and Head Department of Geography Govt. Arts College (Auto) Coimbatore – 641018</td>
</tr>
<tr>
<td>8.</td>
<td><strong>Dr. P. Thangaraju</strong></td>
<td>Industrial Personal</td>
<td>Geo Exploration and Mining Solution (GEMS), 17, Advaitha Ashram Road Fairlands, Salem – 636004</td>
</tr>
<tr>
<td>9.</td>
<td><strong>Dr. M. Vijaya Prabhu</strong></td>
<td>Alumni</td>
<td>UGC Post Doctoral Fellow 1/133, Ayampali Kattu Valavu, Sivasakthi Nagar, Pachanampatti (PO) Omalur (Tk), Salem (Dt) – 636455</td>
</tr>
</tbody>
</table>

**PERIYAR UNIVERSITY**
1. Objectives of the Course:

Geography discipline is penetrating into all spheres of human activities and therefore it is necessary to prepare the students to cope with the advanced developments in various fields of Geography. The objectives of this course are the following:

(a) To impart knowledge in conventional and recent concepts and applications in various areas of Geography.

(b) To train the students in various practical aspects of Geography.

(c) To provide wide choice of elective subjects which are relevant with updated and new areas in various branches of Geography to meet the needs of all students.

2. Eligibility for Admission:

A candidate who has passed B.Sc., Geography / B.Sc., Earth Sciences, Physical Sciences, Chemical Sciences, Biological Sciences and computer applications degree of this University or any of the above degree of any other University accepted by the Syndicate equivalent thereto, subject to such condition as may be prescribed therefore shall be permitted to appear and qualify for the Master of Science (M.Sc.,) Degree Examination in Geography of this University after a course of study of two academic years.
3. Duration of the Course:
The course of study of Master of Science in Geography shall consist of two academic years divided into four semesters with 92 credits. Each Semester consists of 90 working days.

4. Course of Study:
The courses of study for the degree shall be in Branch - Geography (Choice Based Credit System) with internal assessment according to syllabi prescribed from time to time. The Internal Assessment mark for theory is distributed to 3 components viz., Tests, Seminar and Attendance as 10, 10 and 05 marks, respectively. For practical, it is distributed to Record Work, Tests, and Attendance as 25, 10 and 05 marks respectively.

Total Number of Marks : **2200**
For Each Paper : **100** (Int. 25 + Ext. 75)
Project : **200** (Internal Valuation 75 + External Valuation 75 Joint Viva Voce 25 + 25)

5. M.Sc. GEOGRAPHY – COURSE STRUCTURE UNDER CBCS
(Applicable to the candidates admitted from the academic year 2021-2022)

<table>
<thead>
<tr>
<th>Semester</th>
<th>Course</th>
<th>Paper Code</th>
<th>Course Title</th>
<th>Inst Hours/ Week</th>
<th>Credit</th>
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<td>Geomorphology</td>
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<td>Medical Geography</td>
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<td></td>
<td>Core - IV</td>
<td>21PGGP01</td>
<td>Practical - I: Terrain and Climatic Data Analysis</td>
<td>6</td>
<td>4</td>
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<td>21PGGE04</td>
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<td>Political Geography</td>
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<td>EDC - I</td>
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<td>Core - VIII</td>
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<td>6</td>
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<td></td>
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<td>Field Visit/Industrial Visit (Internship Course)</td>
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List of Elective Courses: Select Any One from each Semester

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<tr>
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<th>Course</th>
<th>Paper Code</th>
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<td>Medical Geography</td>
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<td>I</td>
<td>21PGGE03</td>
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<td>II</td>
<td>21PGGE04</td>
<td>Political Geography</td>
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<td>III</td>
<td>I</td>
<td>21PGGE05</td>
<td>Disaster and Management Studies</td>
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<td>II</td>
<td>21PGGE06</td>
<td>Regional Planning</td>
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<tr>
<td>IV</td>
<td>I</td>
<td>21PGGE07</td>
<td>Geography of Travel and Tourism</td>
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<tr>
<td></td>
<td>II</td>
<td>21PGGE08</td>
<td>Transport Geography</td>
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List of Extra Disciplinary Course (To be selected by Other Department Students)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Paper Code</th>
<th>Extra Disciplinary Course Title</th>
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<tbody>
<tr>
<td>1</td>
<td>21PGGEDC1</td>
<td>Geography of India</td>
</tr>
<tr>
<td>2</td>
<td>21PGGEDC2</td>
<td>Regional Geography of Tamil Nadu</td>
</tr>
</tbody>
</table>

6. Examinations:

The examination shall be of **three hours** duration for each paper at the end of each semester. The candidate failing in any subject(s) will be permitted to appear for each failed subject(s) in the subsequent examination.

Practical examinations for PG course should be conducted at the end of the even semester only.

At the end of fourth semester viva-voce will be conducted on the basis of the Project report by one internal and one external examiner.
7. Question Paper Pattern:

**Question Paper Pattern for Theory Examination**

**Time:** Three Hours  
**Maximum Marks:** 75

**Part – A (15 X 1 = 15 Marks)**
Answer **ALL** Questions

**Part – B (2 X 5 = 10 Marks)**
Answer **ANY TWO** Questions out of **Five**

**Part – C (5 X 10 = 50 Marks)**
Answer **ALL** Questions

**********

**Question Paper Pattern for Practical Examination**

**Time:** 3 Hours  
**Maximum Marks:** 100 (Internal: 40 + External: 60)

Practical Examination: 60 Marks (Exam: 50 Marks, Record: 10 Marks)  
Passing Minimum: 30 Marks (Aggregate of examination and Record)  
(No passing minimum for records)

There will be one question with or without subsections to be asked for the practical examination. Every question should be chosen from the question bank prepared by the examiner(s). Every fourth student gets a new question i.e. each question may be used for at most three students.

8. Project:

(a) **Topic:**

The topic of the project shall be assigned to the candidate before the beginning of third semester and a copy of the same should be submitted to the University for approval.

(b) **No. of Copies of the Project Report:**
The students should prepare three copies of project report and submit the same for the evaluation by Examiners. After evaluation one copy is to be retained in the college library and one copy is to be submitted to the university (Registrar) and one copy can be held by the student.

**Format to be followed:**

The formats / certificate for project to be submitted by the students is given below:

**Format for the preparation of project work:**

- a) Title Page
- b) Bonafide Certificate
- c) Acknowledgement
- d) Table of Contents
- e) List of Tables
- f) List of Figures

### Contents

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<th>Title</th>
<th>Page No.</th>
</tr>
</thead>
<tbody>
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<td>1.</td>
<td>Introduction</td>
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<tr>
<td>2.</td>
<td>Review of Literature</td>
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<tr>
<td>3.</td>
<td>Aim and Objectives</td>
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<tr>
<td>4.</td>
<td>Methodology</td>
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<tr>
<td>5.</td>
<td>Results and Discussion</td>
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<tr>
<td>6.</td>
<td>Summary and Conclusion</td>
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<tr>
<td>7.</td>
<td>References</td>
<td></td>
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</tbody>
</table>

**Format of the Title page:**

**TITLE OF THE PROJECT**

Project Submitted in partial fulfillment of the requirement for the award of the Degree of Master of Science in **GEOGRAPHY**

(Under Choice Based Credit System)

To the Periyar University, Periyar Palkalai Nagar, Salem -636 011
By

Student’s Name : 

Register Number : 

College : 

Year : 

Format of the Certificate:

CERTIFICATE

This is to certify that the project entitled ................................submitted in partial fulfillment of the requirement of the award of the Degree of Master of Science in GEOGRAPHY (Under Choice Based Credit System) to the Periyar University, Salem is a record of bonafide research work carried out by.............................under my supervision and guidance and that no part of the project has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

Date: Signature of the Guide

Place: 

Signature of the Head of the Department

Guidelines for approval of PG Guides for guiding students in their research for submitting project:

A person seeking for recognition as guide should have:

(a) A Ph.D. Degree or M.Phil / M.A. / M.Sc. Degree with first class / second class and

(b) Should have 3 years of teaching / research experiences.

9. Passing Minimum:
The candidate shall be declared to have passed the examination if the candidate secures not less than 50% marks in both the **University Examinations** and **Internal Assessment** in each paper.

For the Practical paper, a minimum of 50 marks out of 100 marks in the University examination and the record notebook taken together is necessary for a pass. There is no passing minimum for the record notebook. However submission of record notebook is a must.

For the Project work and viva-voce a candidate should secure 50% of the marks for pass. The candidate should attend viva-voce examination to secure a pass in that paper.

Candidate who does not obtain the required minimum marks for a pass in a Paper / Practical / Project Report shall be required to appear and pass the same at a subsequent appearance.

### 10. Classification of Successful Candidates:

Candidates who secure not less than 60% of the aggregate marks in the whole examination shall be declared to have passed the examination in **First Class**.

All other successful candidate shall be declared to have passed in the **Second Class**.

Candidates who obtain 75% of the marks in the aggregate shall be deemed to have passed the examination in the **First Class with Distinction** provided they pass all the examinations prescribed for the course at the first appearance.

Candidates who pass all the examinations prescribed for the course in the first instance and within a period of two academic years from the year of admission to the course only are eligible for **University Ranking**.

### 11. Maximum Duration for the Completion of the PG Programme:

The maximum duration for completion of the PG Programme shall not exceed eight semesters.

### 12. Commencement of this Regulation:
These regulations shall take effect from the academic year 2021-2022, that is, for students who are admitted to the first year of the course during the academic year 2021-2022 and thereafter.

13. Transitory Provision:

Candidates who were admitted to the PG course of study before 2021-2022 shall be permitted to appear for the examinations under those regulations for a period of three years, that is, up to end inclusive of the examination of April / May 2021. Thereafter, they will be permitted to appear for the examination only under the regulations then in force.

Semester I
Core – I – GEOMORPHOLOGY

Paper Code: 21PGG01 Credits: 5


Unit IV: Fluvial landforms - Aeolian landforms – Karst landforms – Glacial landforms – Coastal landforms – Classification of coasts.

Unit V: Ice Ages – Climatic Geomorphology – Applied Geomorphology with reference to engineering, mineral exploration and hydrological studies.

Reference Books:

Unit III: Theories of population growth – Malthus – Demographic Transition – Migration - Types – Determinants – Major causes and consequences of migration.


Reference Books:


Semester I
Core – III – ENVIRONMENTAL STUDIES

Paper Code: 21PGG03 Credits: 5


Unit II: Concept of Ecosystem – Structure – Functioning of the ecosystem – Food chain, food web and food pyramid – Nutrient cycles – Natural disruptions of the ecosystem – Floods and Drought.


Reference Books:


Semester I

**ELECTIVE – I – AGRICULTURAL GEOGRAPHY**

**Paper Code: 21PGGE01**

**Credits: 4**

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

Reference Books:


Semester I

**ELECTIVE – I – MEDICAL GEOGRAPHY**

Paper Code: 21PGGE02 Credits: 4

Unit I: Nature, Scope and Development of Medical Geography – Concept of Health and Diseases – Climate and Health – Human Diseases – Classification – Infectious, Degenerative and Chronic, Inherited and Genetic Diseases.

Unit II: Geographical Perspectives of Communicable and Non-Communicable Diseases – Epidemic, Endemic and Pandemic Nature of Diseases – Major Tropical Diseases – Malaria,
Filariasis and Leprosy – Cancer and Heart attack – Social Diseases – HIV/AIDS, STD - Sexually Transmitted Disease.

**Unit III:** Disease Ecology – Determinants of Diseases – Interplay of Environmental, Cultural, Socio-Economic and Ecological Factors – Gender and Health – Disease Diffusion – Concepts – Dynamics of Major Diseases – Migration and Disease – Travel Medicine.

**Unit IV:** Medical Cartography – Measurement Techniques of Diseases – Disease Mapping Techniques at Macro, Meso and Micro levels – Medical Statistics – Measurement of Morbidity and Mortality.

**Unit V:** Health Care Delivery System – Hierarchy of Medical Services – Planning for Manpower, Infrastructure and Service Facilities of Health Care – Rural and Urban Disparities – Health Education – GIS in Public Health Surveillance and Monitoring.

**Reference Books:**


Semester I

**Core – IV – Practical – I - TERRAIN AND CLIMATIC DATA ANALYSIS**

**Paper Code: 21PGGP01**

**Credits: 4**

**Unit I:** Drawing Profiles

1.1 Serial Profile
1.2 Superimposed Profile
1.3 Projected Profile
1.4 Composite Profile
1.5 Longitudinal Profile
Unit II: Slope Analysis
   2.1 Wentworth method
   2.2 Smith Relative relief method
   2.3 Altimetric Frequency Curve
   2.4 Hypsographic Curve.

Unit III: Morphometric Analysis
   3.1 Stream Ordering
   3.2 Bifurcation ratio
   3.3 Stream Length Ratio
   3.4 Miller’s Drainage Shape Calculating Method

Unit IV: Climatic Data Analysis
   4.1 Foster’s Climograph
   4.2 Climatograph
   4.3 Rainfall Dispersion Diagram
   4.4 Wind-Rose Diagram

Reference Books:


Semester II

Core – V – GEOGRAPHY OF ECONOMIC ACTIVITIES

Paper Code: 21PGG04  Credits: 5


Unit III: Economic significance of minerals – Distribution and production of iron ore, manganese, bauxite, copper, gold and mica – Fuel resources: Coal – Petroleum and Nuclear minerals.

Unit IV: Manufacturing industries – Major inputs – Locational factors – Distribution of iron and steel, textiles (cotton and woollen) – Ship-building and Automobile industries – Major industrial regions of the world.


Reference Books:


Semester II

**Core – VI – CLIMATOLOGY**

**Paper Code: 21PGG05**

**Credits: 5**


Unit IV: Air masses – Classification – Fronts – Atmospheric disturbances – Tropical and Temperate cyclones.

Unit V: Koppen and Thornthwaite climatic classification – Weather forecast and weather satellites – recent trends – Climatic regions of world.

Reference Books:


Semester II

Core – VII – URBAN GEOGRAPHY

Paper Code: 21PGG06 Credits: 5


Reference Books:


Semester II

**ELECTIVE – II – OCEANOGRAPHY**

**Paper Code: 21PGGE03**  
**Credits: 4**

Unit I: Scope, Content, Significance, Distribution of Land and Sea – Hypsometric Curve, Surface Configuration of the Ocean Floor: Continental Shelf, Continental Slope, Deep Sea Plain, Oceanic Deeps and Submarine Canyons.

Unit II: Atlantic, Pacific and Indian Ocean – Horizontal and Vertical Distribution of Seawater Temperature, Salinity: Factors affecting Salinity and Distribution.

Unit IV: Coral Reefs: Classification and Distribution – Coral Reefs types - Conditions for the Growth.


Reference Books:


Semester II
ELECTIVE – II – POLITICAL GEOGRAPHY

Paper Code: 21PGGE04 Credits: 4

Unit I: Political Geography - Nature and Scope – Contemporary Traditions in Political Geography – Approaches to Study – Its Relation to other Social Science Disciplines.

Unit II: Nation - Concept – Characteristics – Elements of Nation Building – Nationalism; State: Concept – Characteristics – Types ; Land Locked – Littoral – Island States

Unit III: Frontiers and Boundaries: Evolution and Classification – Core Areas and Capitals, Centre – Periphery Relations

Unit IV: Global Strategic Views; Heartland and Rim Land Theories – Indian Ocean Politics – International Relations –
Multinational Organizations: Political, Economic and Cultural Blocks

Unit V: Political Geography of India: Federalism - State Reorganization after Independence – Emergence of New States – India's Border Problems – Inter State Disputes with Tamil Nadu.

Reference Books:


Semester II

EDC: GEOGRAPHY OF INDIA

Paper Code: 21PGGEDC1 Credits: 4

Unit I: Location and Administrative Units – Physiographic divisions – Climate – Climatic types – Soils and Natural Vegetation.

Unit II: Agriculture – Salient features – Factors affecting, agriculture in India – Major crops – Rice, wheat, cotton, jute, tea, coffee, sugarcane and tobacco only – Irrigation and types – Multipurpose projects.

Unit IV: Transport and communication: Road, Railways and Water transport – Inland waterways – Ports – Air transport.

Unit V: Population: Growth and Distribution of Population – Migration and Urbanization in India.

Reference Books:


Semester II

**EDC: REGIONAL GEOGRAPHY OF TAMIL NADU**

**Paper Code: 21PGGEDC2**

**Credits: 4**

**Unit I:** Location and administrative units – Physiographic divisions – Climate – Rainfall – Climatic types – Soils – Natural Vegetation.

**Unit II:** Agriculture – Salient features – Major crops – Rice, cotton, tea, coffee and sugarcane – Irrigation and types.


**Unit IV:** Transport and communication – Road, Railways – Ports – Air transport – Exports and Imports.
Unit V: Growth and Distribution of Population – Population migration, Urbanisation in Tamil Nadu.

Reference Books:

Unit IV: Measures of Central tendency
  4.1 Mean, Median and Mode
Measures of dispersion
  4.2 Mean deviation
  4.3 Quartile deviation
  4.4 Standard Deviation
  4.5 Coefficient of Variations

Unit V: Correlation Techniques
  5.1 Pearson’s Product Moment Correlation
  5.2 Spearman Rank Correlation
Regression Analysis in Geography
  5.3 Residual Mapping
  5.4 Factor Analysis

Reference Books:

Semester III
Core – IX – PRINCIPLES OF CARTOGRAPHY

Paper Code: 21PGG07  Credits: 5

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 map drawing – Map construction and reproduction – Photographic and Printing – Photostat – Contact prints – Electronic stencil cutters.

Unit III:  Symbolizing and processing data – Statistical data base – Use of symbols 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.

Reference Books:


Semester III
Core – X – CONCEPTS AND TRENDS IN GEOGRAPHY

Paper Code: 21PGG08 Credits: 5

Unit I: Geographical thought: Greeks, Romans, Arabs, German, French, British, America, Australia and Indian Geographical Thought.

Unit II: Traditions in Geography – Man – Land, Area Studies, Spatial and Earth Science Traditions – Dualism and Dichotomy – Systematic and Regional, Deterministic and Possibilistic, Physical and Human, Ideographic and Nomothetic, Qualitative and Quantitative.

Unit III: Explanations in Geography – Models and Theories in Geography.


Reference Books:


Semester III

ELECTIVE – III – DISASTER AND MANAGEMENT STUDIES

Paper Code: 21PGGE05 Credits: 4

Unit I: Basic concepts of disaster – types of disasters – Natural forces and Life – Increasing importance of disasters.


Unit IV: Disaster Preparedness and Mitigation – Managing natural and anthropogenic disasters – Risk assessment and analysis.

Reference Books:


Semester III

**ELECTIVE – III – REGIONAL PLANNING**

**Paper Code: 21PGGE06**

**Credits: 4**

**Unit I:** Concept of Region - Meaning and Types of Regions – Formal Region and Functional Region - Regionalization – Regional imbalance and Disparity.

**Unit II:** Approaches to Regional Analysis - Geographic Approach – Economic Approach – Holistic Approach.

**Unit III:** Regional Planning - Meaning and Need for Regional Planning – Planning Principles – Regional Planning Process.

**Unit IV:** Types and Levels of Planning - Rural and Urban Planning - Sectoral and Spatial planning – Problems of Regional Planning.

**Unit V:** Regional Planning in India - Development of Backward Areas and Drought Prone Regions – Planning for Hill Area Development and Tribal Development.
Reference Books:


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**Semester III**

**Core – XI – Practical – III**

**THEMATIC CARTOGRAPHY**

**Paper Code: 21PGGP03**

**Credits: 4**

**Unit I:** Map Compilation and Generalization
- 1.1 Map Generalization
- 1.2 Map Compilation
- 1.3 Scale Conversion

**Unit II:** Representation of Statistical data into Thematic maps
- 2.1 Point symbol Maps
- 2.2 Line symbol Maps
- 2.3 Area symbol Maps
- 2.4 Volume symbols Maps

**Unit III:** Cartographic Appreciation
- 3.1 Cartographic Appreciation of Survey of India
- 3.2 Cartographic Appreciation of British Ordnance Survey
- 3.3 Cartographic Appreciation of US Geological Survey

**Unit IV:** Survey of India Topographical Sheet
- 4.1 Detailed interpretation of Survey of India
- 4.2 Physical Features
4.3 Cultural Features

Unit V: Interpretation of British and US maps
   5.1 British Ordnance Survey
   5.2 US Geological Survey maps

Reference Books:


Semester IV
Core – XII – GEOGRAPHY OF INDIA

Paper Code: 21PGG09 Credits: 5

Unit I: Location and Administrative units – Physiographic divisions – Climate – Soils and Natural Vegetation.

Unit II: Agriculture – Salient features – Factors affecting, agriculture in India – Major crops – rice, wheat, cotton, jute, tea, coffee, sugarcane and tobacco – Irrigation and types – Multipurpose projects.


Unit IV: Transport and communication: Land transport: Road and Railways – Water transport – Inland waterways – Ports – Air transport – Foreign trade – Exports and Imports

Unit V: Population: Growth and Distribution of Population – Migration - Urbanization in India.

Reference Books:

**Semester IV**

**Core – XIII – PRINCIPLES OF REMOTE SENSING AND GIS**

**Paper Code: 21PGG10**

**Credits: 5**


**Unit II:** Aerial Remote Sensing – Types of aerial photographs – Camera – Films – Filters; Photogrammetry: Stereoscopic Vision – Photo Scale – Relief Displacement – Parallax – Mosaic.


**Unit IV:** GIS and GNSS: Definition – Components – Data sources – Data models: RASTER, VECTOR & TIN; GIS Analysis: Overlay, Buffer, Network Analysis – DEM. GNSS: Components of GNSS Satellites – GNSS Survey: Handheld GPS and DGPS


**Books for Reference:**

Semester IV

**ELECTIVE – IV – GEOGRAPHY OF TRAVEL AND TOURISM**

**Paper Code: 21PGGE07**  
**Credits: 4**

**Unit I:** Concepts of Leisure and Tourism – Principles and Purpose – Types of tourism – Significance of Tourism development in Modern society – Tourism development in the world – Tourism in India.

**Unit II:** History of tourism – Ancient, Medieval and Modern periods – Determinants and motivation of tourism.

**Unit III:** Elements of tourism – Attraction, Accessibility and Amenities – Classification of tourist spots – Accommodation – Primary and supplementary accommodation – Hotels, Drive inn, Holiday inn and motels.

**Unit IV:** Role of transport in tourism development – Travel formalities – Tour itinerary – Travel agency – Travel restrictions – Passport, Visa and bank restrictions – Traveller’s cheques – Credit and debit cards – Tourism and environment – Eco tourism.

**Unit V:** Tourism Organization – WTO – ITDS - TTDC and subsidiaries – Tourism promotion – Advertisement – Tourism Planning and Development – Tourist spots in India – Potentials of tourism in India – Problems of tourism development.

**Reference Books:**

**Semester IV**

**ELECTIVE – IV – TRANSPORT GEOGRAPHY**

**Paper Code: 21PGGE08**

**Credits: 4**

**Unit I:** Nature, scope and significance of Transport Geography – Different types of transportation – Their merits and demerits – Choice of mode of Transport.

**Unit II:** Terminal charges and operating charges – Tapering cost structure – Variation in freight structure on distance, commodity, size and elasticity of demand – Long haul advantage.

**Unit III:** Transportation network – Nodes and links – Connectivity – Accessibility – Centrality – Structural analysis of transportation network – Graph theoretic measures – Stages of development of network – Measures of nodal accessibility – Matrix measures – Shortest path – Desire line – Detour index.

**Unit IV:** Theories of Spatial interaction – Interaction models – Gravity models – Ullman’s triad – Critical appreciation of gravity model – Flows in the network – Intensity of flow – Allocation model for transportation.

Reference Books:


Semester IV

**Core – XIV – Practical – IV**

**GIS AND REMOTE SENSING APPLICATIONS**

Paper Code: 21PGGP04  
Credits: 4

**Unit I:**  
Aerial Photographs  
1.1 Marginal Information  
1.2 Interpretation of Aerial photographs  
   - Physical Features  
   - Cultural Features  
1.3 Determination of Scale  
1.4 Determination of Height

**Unit II:**  
Satellite Images  
2.2 Marginal Information  
2.3 Elements of Image Interpretation  
   - Physical Features  
   - Cultural Features  
2.4 Digital Image Processing  
2.5 Image Classification

**Unit III:**  
Geographic Information System  
3.1 Map to Raster Conversion  
3.2 Georeferencing  
3.3 Digitization – Point, Line and Polygon  
3.4 Data Coding  
3.5 DEM and TIN Generation  
3.6 GIS Analysis: Query, Buffering and Overlay

**Unit IV:**  
Global Positioning Survey  
4.1 GPS Survey (Point, Line & Polygon)  
4.2 Thematic Map Preparation

**Unit V:**  
Global Navigation Satellite Systems  
5.1 GNSS Survey (Point, Line & Polygon)
5.2 Thematic Map Preparation

Reference Books:


PRACTICAL MODEL QUESTION PAPER

PERIYAR UNIVERSITY
M.Sc., DEGREE EXAMINATION
(For the candidates admitted from 2021-2022 onwards)

Name of the course: M.Sc., GEOGRAPHY

Title of the Paper - Practical-III: THEMATIC CARTOGRAPHY

Course Code: 21PGGP03
Semester – IV

Time: 3 Hours Max. Marks: 60
For Practical: (5 x 10) = 50
For Record = 10

Answer ALL question
(*All Questions carry equal marks*)

1. The given portion of the Indian Topographical sheet is in the scale of 1: 50,000. By using the equal square method prepare the generalized map for the physical features in the scale of 1: 77,000.

2. Give a detailed account on various methods of depicting the relief features in the thematic maps with suitable illustrations.

3. Draw a located volume diagram for the following data.

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Languages</th>
<th>No. of Persons</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</table>

Selected languages of India
No. of Persons known to read and write the languages
4. Interpret the given Indian topographical sheet with special reference to relief and land use.

5. Write the cartographic appreciation of the given British Ordnance survey sheet with suitable diagrams.

THEORY MODEL QUESTION PAPER

PERIYAR UNIVERSITY
M.Sc., DEGREE EXAMINATION
(For the candidates admitted from the year 2021-22 onwards)

Name of the course: GEOMORPHOLOGY

Course Code: 21PGG01
Semester – I

Time: 3 Hrs. Maximum: 100 Marks

PART A - (15 × 1 = 15 Marks)
Answer ALL questions.

1. “Present is key to the past” is stated by
   (a) James Hutton
   (b) W.M.Davis
   (c) L.C.King
   (d) Alfred Wegner

2. The main causes of faulting is _______________
   (a) Gravitational force
   (b) Tidal activity
   (c) Wind
   (d) Tension

3. Wegner fully accepted
   (a) The theory of Isostasy
   (b) The view of place Tectonics
   (c) The view of Arthur Homes
   (d) The sea floor spreading

4. Exfoliation is regarded as a process of
5. When the slope is very steep the movement of mass is?
(a) Fall
(b) Creep
(c) Flow
(d) Slide

6. Landslide is due to
(a) Solifluxion
(b) Rockfall
(c) Heavy rainfall
(d) Weathering

7. Theory of slope replacement explained by
(a) Davis
(b) Penck
(c) King
(d) Wood

8. Wood calls the slope of the Talus as
(a) Constant slope
(b) Wash slope
(c) Free face
(d) Walther penck

9. ___________ explains slope development as part of explanation on his “Standard Epigene cycle of Erosion”.
(a) Davis
(b) Penck
(c) King
(d) Wood

10. The removal of large quantities of loose material by wind
(a) Abrasion
(b) Deposition
(c) Deflation
(d) Blowout

11. Which of the following is produced by glacial erosion?
(a) Horn
(b) Drumlin
(c) Kame
(d) Esker

12. Ria coast is formed due to
(a) Submergence of river valley
(b) Deposition of sand dunes
(c) Submergence of glacial valley
(d) Deposition of alluvium

13. Application of geomorphology is highly useful to
   (a) Ecology
   (b) Hydrology
   (c) Geology
   (d) Zoology

14. In highway construction in glaciated region which of the following is an obstruction
   (a) Eskers
   (b) Yardang
   (c) Meander
   (d) Crevasses

15. In applied geomorphology drainage in
   (a) oil exploration
   (b) highway construction
   (c) mineral ore
   (d) dam construction

**PART B - (2 × 5 = 10 Marks)**
Answer any TWO questions.

16. Write a note on endogenic forces.

17. Write are the basic assumption of “The Normal Cycle of Erosion theory”.

18. Write about the contribution of L.C.King in Geomorphological study?


20. The knowledge on Geomorphology is essential in petrol exploration-explain.

**PART C - (5 × 10 = 50 Marks)**
Answer ALL questions.

21. (a) Write an essay on fundamental concepts of Geomorphology.
    Or
    (b) Elucidate the Wegner’s Continental Drift Theory with evidences.

22. (a) Give a detailed account on different types of weathering process.
    Or
    (b) Write elaborate notes on mass wasting.

23. (a) Appraise the viewes of W. Penck on slope Decline Theory.
    Or
    (b) Evaluate the parallel Retreat of L.C.King.
24. (a) Describe the erosional landforms by wind.  
   Or  
   (b) Write a geographical account on karst regions.

25. (a) Write about the role of “Morphogenetic region” in Geomorphological study.  
   Or  
   (b) Write about the role of Applications of Geomorphology in mineral explorations in detail.