FACULTY OF ARTS & SOCIAL SCIENCES

SYLLABUS

FOR

M.A. (Geography)
(SEMESTER: I - IV)

Examinations: 2019-20

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M.A. GEOGRAPHY (SEMESTER SYSTEM)

OUTLINES OF TESTS, SYLLABI AND COURSES OF READING IN THE SUBJECT OF GEOGRAPHY FOR M.A. (SEMESTER SYSTEM)

There will be four papers, three compulsory and one optional (out of the offered optional papers), of 100 marks each including practical examination as under:

SEMESTER-I:

Paper-I : Geographic Thought 100
Paper-II : Geomorphology 100
Paper-III : Cartography (Theory and Practical) 100
Paper-IV : Any one of the following optional courses:
- Option (i) : Fundamentals of Population Geography 100
- Option (ii) : Political Geography 100
- Option (iii) : Medical Geography 100

Total: 400

SEMESTER-II:

Paper-I : Climatology 100
Paper-II : Geography of India (Systematic and Regional) 100
Paper-III : Fundamentals of Remote Sensing (Theory and Practical) 100
Paper-IV : Any one of the following optional courses:
- Option (i) : Urban Geography 100
- Option (ii) : Fundamentals of Natural Hazards and Disaster Management 100
- Option (iii) : Geography of Settlement with Special Reference to India 100

Total: 400
# M.A. GEOGRAPHY (SEMESTER SYSTEM)

## SEMESTER III

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**Paper–IV**

*Any one of the following optional courses:*

- Option (i): Regional Development and Planning in India 100
- Option (ii): Social Geography 100
- Option (iii): Geography & Eco Systems 100

**Total:** 400

## SEMESTER–IV

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**Paper–IV**

*Any one of the following optional courses:*

- Option (i): Geography of Manufacturing Industry 100
- Option (ii): Geography of Migration 100
- Option (iii): Fundamentals of Agricultural Geography 100

**Total:** 400
M.A. GEOGRAPHY (SEMESTER – I)

Paper-I: GEOGRAPHIC THOUGHT

Time: 3 Hours         Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
Main objectives of this course are to acquaint the students with the philosophy, methodology and historical development of geography as a professional field. This should enable the student to critically look at the contents of other courses at Postgraduate level as logically integrated with the broad currents of thought the subject has witnessed in the distant and recent past. The course aims at developing critical thinking and analytical approaches.

SECTION-A


Geography in the Modern Period: Contributions of Varenius, Kant, Humboldt and Ritter.

SECTION-B

Philosophical Foundations
(a) Geography as a science of: (i) distributions; (ii) relationships; (iii) areal differentiation; and (iv) spatial organisation.

(b) Dualism between
(i) systematic and regional geography;
(ii) physical and human geography.

SECTION-C

Methodological Issues
Modes of explanation (a) major concerns of scientific thinking; (b) the routes to scientific explanations.

Conceptual methodological developments.

SECTION-D

Contemporary Developments
Geography in the Twentieth Century: The changing paradigms, Determinism and possibilism. Quantitative Revolution, Positivism, behaviouralism, radicalism and humanism.
Books Recommended:

Essential Readings:

Further Readings :

Pedagogy : The students are to be encouraged to interact with students from other streams of knowledge i.e. physical, social sciences and humanities for a proper grounding into geography. All issues relating to philosophy, methodology and history of the discipline are to be explained by asking the students to prepare write ups on specific problems. Emphasis will be both on theoretical and practical aspects.
M.A. GEOGRAPHY (SEMESTER – I)

Paper-II: GEOMORPHOLOGY

Time: 3 Hours          Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
Note: Stencil outline maps are allowed

Objectives:
This course represents the interface between physical aspects of Geography and Geology, Oceanography, Glaciology etc. The course aims to sensitise the student to this interface. The course aims to familiarize the student with the conceptual framework for understanding the existing geomorphological landscapes and related processes. The course is designed to provide the student with a theoretical and empirical framework for understanding landscape evolution and the characteristics of individual types of geomorphic landscapes.

SECTION-A
Nature, Scope, Approaches and recent developments.
Important concepts in geomorphology.
Relationship between process and landform.

SECTION-B
Earth Movements: Epeirogenic, orogenic, cymatogenic.
Morphogenetic regions.
Mass movement of debris.

SECTION-C
Volcanic topography.
Karst topography.
Fluvial, Aeolian, Glacial and Marine Landforms and their processes.

SECTION-D
Models of landscape evolution and slope development: Ideas of Davis, Penck, and King.
Multicyclic and polygenetic evolution of landscapes.
M.A. GEOGRAPHY (SEMESTER – I)

Books Recommended:

Essential Readings:


Further Readings:


Pedagogy:

The study of this paper needs adequate understanding of geomorphic forms and processes. It can be achieved through suitable use of audio-visual aids, photographs, maps, other forms of illustrations and, depending upon feasibility, field visits.
M.A. GEOGRAPHY (SEMESTER – I)

Paper-III: CARTOGRAPHY (THEORY AND PRACTICAL)

Time: 3 Hours          Max. Marks: 100

Distribution of Marks:
(i) Theory Written paper will be three hours carrying 50 Marks
(ii) Practical will be 50 Marks.
    a) Practical record and viva voce (20+10) 30 Marks
    b) Two practical exercises set on the spot by the examiner 20 Marks

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
The objective of this course is to promote awareness of the various cartographic techniques available for graphic representation of relief, population, agriculture, industrial and transport data, the steps of construction of the techniques - their merits and demerits. An effort is made to help them develop manual skills of drawing maps based on some of the above-mentioned data. They are also told about benefits of GIS and computer-assisted cartography.

SECTION-A

Cartography - Nature, history and recent trends.
GIS and Computer Assisted Cartography (four practical exercises as per the availability of equipment/hardware & software).
Types of data and symbols.

SECTION-B

Landform Mapping and Analysis:
Problems of Landform Mapping: Elementary conventional methods and profiles (serial, longitudinal, superimposed, composite and projected).

SECTION-C

Calculation of Gradient, scales of slopes. Methods of slope analysis; Wentworth, Henry and Raisz, Robinson.
Mapping of climatic data: Temperature and Rainfall.

SECTION-D

Representation of Population data.
Representation of Agriculture data.
M.A. GEOGRAPHY (SEMESTER – I)

1. Each candidate shall prepare a Practical File containing at least 15 exercises under the supervision and guidance of the teacher concerned. The candidate shall submit his Practical File at least 10 days before the commencement of the theory examination to the concerned department duly approved and signed by the faculty member teaching the course.

2. Assessment of practical record and viva voce on it will be done by a Board of Examiners, consisting of one external examiner and one internal examiner, as practical examinations.

Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
There should be adequate interaction between the teacher and students. The teacher should make maximum use of wall maps and other illustrations like maps from geography books, Ph.D. thesis, research reports and atlases while teaching the use of different cartographic techniques. This course is concerned with visual techniques, therefore maximum use of the visual illustrations should be made while teaching this course.
M.A. GEOGRAPHY (SEMESTER – I)

Paper- IV: Any one of the following optional courses:
Option (i) : FUNDAMENTALS OF POPULATION GEOGRAPHY

Time: 3 Hours         Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: Stencil outline maps are allowed

Objectives:
The aim of this course is to explain the geographical approach to the study of population. It focuses on analysis of broad spatial patterns of world population examining population resource relationship and population problems and policies of developed and less developed countries of the world.

SECTION-A

(i) Nature and scope of population geography; methodological problems in population geography; recent developments in population geography; population geography in India.
(ii) Sources of population data: Quality and reliability of data; problems of mapping population data.

SECTION-B


SECTION-C


SECTION-D

A comparative study of the population problems and policies of developed and Developing countries with special focus on the following countries : Developed(A) USA, Great Britain
M.A. GEOGRAPHY (SEMESTER – I)

(b) Developing: China, India.

Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
The students may be encouraged to interact with census officials so as to understand the census operations in the country. The students may also interact with the students from other disciplines, which study population in order to understand the geographical approach to the study of population.
M.A. GEOGRAPHY (SEMESTER – I)

Paper IV: Option–(ii): POLITICAL GEOGRAPHY

Time: 3 Hours           Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
The course is designed to acquaint the student with the conceptual framework for the study of geographical bases for political phenomena. To create awareness about the role of geographical factors in influencing political character of individual countries/regions.

SECTION-A
Definition, approaches, scope and importance of Political Geography. Study of different geographical-political schools of thought. Recent developments in political geography.

SECTION-B
Elements of Political Geography :
Physical elements (location, size and shape).
Economic elements (Transportation- surface, air & water; foreign trade and investment).

SECTION-C
Special themes in Political Geography :
State and Nation.
Frontiers and Boundaries.

SECTION-D
Federalism: Definition, concept, approaches and types, geography and federalism.
Place of electoral study in political geography; geographical approaches to the study of elections; Electoral abuse.
M.A. GEOGRAPHY (SEMESTER – I)

Essential Readings:


Further Readings:


Pedagogy:

The students should be encouraged to engage in classroom discussions on the geographical aspects of political problems at the national and international levels.
M.A. GEOGRAPHY (SEMESTER – I)

Paper IV: Option – iii: MEDICAL GEOGRAPHY

Time: 3 Hours         Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION-A

Introduction to Medical Geography

SECTION-B

Environments and Health Care Studies
W.H.O. Classification of Diseases ; Environmental Medicine (Water, Soil, Climate and Health) ; Medical Pluralism in developing countries with reference of India.

SECTION-C

Distribution Patterns of Disease
Geographical Patterns of Major diseases with special reference to India; Malaria, Cholera, Tuberculosis, AIDS.

SECTION-D

Health Care and Service Systems
Geography of Nutrition with special reference to India; Health Services System in Developed and Developing Countries-U.S.A. and India.
**Recommended Readings:**


**Supplementary Readings:**

M.A. GEOGRAPHY (SEMESTER – II)

Paper-I: CLIMATOLOGY

Time: 3 Hours          Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: Stencil outline maps are allowed

Objectives:
The overall objective of the course is to foster comprehensive understanding of atmospheric phenomena; dynamics and global climates.

SECTION-A

Introduction, Atmosphere, Insolation and Pressure System
(i) Nature and scope of climatology
(ii) Composition and structure of the atmosphere
(iii) Insolation: Horizontal and Vertical distribution, heat budget of the Earth.
(iv) Pressure system and winds: Horizontal and vertical distribution of pressure; Winds: Factors determining the resultant winds, planetary winds, local winds. El Nino-Southern Oscillation (ENSO).

SECTION-B

Atmospheric Moisture, Disturbances and Air Masses
(v) Atmospheric Moisture: Humidity, evaporation, condensation; Precipitation: Processes of formation, types of precipitation, world patterns of precipitation.
(vi) Air Masses: Source regions, classification of air masses; Fronts; Types and characteristics.
(vii) Atmospheric disturbances: Mid-latitude cyclones, anticyclones; tropical cyclones.
(viii) Upper air circulation: Upper air, long waves and jet streams.
M.A. GEOGRAPHY (SEMESTER – II)

SECTION-C

Climatic Changes
(ix) Study of evidences of climatic changes in the past.
(x) Hypotheses and Theories regarding climatic changes in the past.
(xi) Anthropogenic effects of environmental changes on climatic changes.

SECTION-D

Climatic Classifications
(xii) Climatic classifications: A critical study of Koppen's, Thornthwaite's Climatic classifications.
(xiii) A geographical study of following climatic types:
   (a) Tropical rainforest
   (b) Temperate oceanic
   (c) Temperate continental
   (d) Boreal climate
   (e) Tundra climate
   (f) Dry climate

Recommended Readings:

Supplementary Readings:
M.A. GEOGRAPHY (SEMESTER – II)

Paper–II: GEOGRAPHY OF INDIA (SYSTEMATIC AND REGIONAL)

Time: 3 Hours           Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Note: Stencil outline maps are allowed

Objectives:
To provide an understanding of:
The geographic dimensions of India in terms of its political and administrative characteristics.
The physical and climatic attributes and their interface with developmental strategies.
The human and economic dimensions of India in a spatial perspective.

SECTION-A
Unity in diversity of India : Unifying mechanism and divisive streaks.
Evolution of the administrative map of India since Independence.

SECTION-B
Role of language, religion and culture in the formation of regions.
The question of regional disparity and identity in India.

SECTION-C
Regionalisation schemes of India : Physiographic, Climatic, Agricultural, and Industrial.

SECTION-D

Northwest India :

Northwest India as a Geographic Entity : Jammu & Kashmir, Himachal Pradesh, Haryana, Punjab and Union Territories of Delhi and Chandigarh.
Land : Physiography and drainage.
People : Population number, distribution and density, growth and urbanization.
Economy : Agriculture, Industry and Transport.
M.A. GEOGRAPHY (SEMESTER – II)

Books Recommended:

Essential Readings:

2. Deshpande, C.D., India : A Regional Interpretation, ICSSR and Northern Book Center, New Delhi, 1992.

Further Readings:

2. Dreze, Jean and Amartya Sen, Indian Development, Oxford University Press, Delhi, 1996.

Pedagogy:

The course should be backed up with extensive use of examples from Indian urban places with the help of audio-visual aids and, depending upon feasibility, field trips.
M.A. GEOGRAPHY (SEMESTER – II)

Paper-III: FUNDAMENTALS OF REMOTE SENSING
(Theory and Practical)

Time: 3 Hours          Max. Marks: 100

Distribution of Marks:
(i) Theory Written paper will be three hours carrying 50 Marks
(ii) **Practical will be 50 Marks.**
    a) Practical record and viva voce (20+10) 30 Marks
    b) Two practical exercises set on the spot by the examiner 20 Marks

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
To expose the students with one of the most modern methods of data collection, using aerial photographs and satellite-based imageries.
To develop the skill of interpretation and map making using remote sensing.
To introduce the students about the application of this new technology in management and planning of resources.

**SECTION-A**

Historical development of remote sensing, its types and sensors used, electromagnetic energy, geographical uses of remote sensing data.
Types of aerial-photographs and their applications, element of object identification, image interpretation techniques, photo mosaics.

**SECTION-B**

Simple Geometry of aerial photos; measurement of scale, heights and slope from vertical aerial photos.
Identification and mapping of elements of natural and cultural landscape including topography, drainage, surficial material, vegetation, settlements, transport networks, land use and field pattern.
M.A. GEOGRAPHY (SEMESTER – II)

SECTION-C
Space borne RS, RS Sensors: Scanning mechanism, Resolution and its types, RS Satellites with special reference to space programmes of USA, Canada, Europe, India, Japan, comparison of aerial photographs, satellite imageries with toposheets.

SECTION-D
Application of remote sensing in management of environmental problems and natural hazards, such as floods, earthquakes, cyclones, forest fire, and droughts.

1. Each candidate shall prepare a Practical File containing at least 15 exercises under the supervision and guidance of the teacher concerned. The candidate shall submit his Practical File at least 10 days before the commencement of the theory examination to the concerned department duly approved and signed by the faculty member teaching the course.

2. Assessment of practical record and viva voce on it will be done by a Board of Examiners, consisting of one external examiner and one internal examiner, as practical examinations.

Books Recommended:

Essential Readings:

M.A. GEOGRAPHY (SEMESTER – II)

Further Readings:


Pedagogy:
Basic fundamentals of map projection are introduced by demonstrating construction exercises in the class. Students are provided aerial photographs and trained to identify and map physical and cultural features. Instruments such as pocket and mirror stereoscope are used to prepare stereo models. Students are given simple exercises on photogrammetry.
M.A. GEOGRAPHY (SEMESTER – II)

Paper- IV: Any one of the following optional courses:
  Option (i): URBAN GEOGRAPHY

Time: 3 Hours          Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:

To familiarise the students with the theoretical foundations and recent trends in this branch of Geography.
To provide an understanding of evolutionary, morphological and, functional attributes of urban places at different scales.
To sensitize the students about contemporary urban problems.

SECTION-A
Definition, nature, scope and approaches.
Development and recent trends.
Attributes of Modern city.

SECTION-B
A study of the following aspects of urban places :
Setting : Location, situation and site; definition, nature and significance.
Ecological processes and their spatial expression.
Internal Structure: Theories of internal structure, internal structure of Indian cities and its comparison with western cities.
Urban Fringe: Attributes, demarcation and urban sprawl.

SECTION-C
City-region Relations : Basis and nature, definition, demarcation, and functional structure of umland.
Cities and Central Places : Models of Christaller & Losch,
M.A. GEOGRAPHY (SEMESTER – II)

SECTION-D

Urban Systems: Definition, models of city size distribution; urban system in India.

Classification of urban places:
(a) Non-functional classification.
(b) Functional Classification: Comparison of methods of functional classification.

Contemporary Urban Issues: Slums, Pollution.

Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
The course should be backed up with extensive use of examples from Indian urban places with the help of audio-visual aids and, depending upon feasibility, field trips.
M.A. GEOGRAPHY (SEMESTER – II)

Paper IV: Option – (ii): FUNDAMENTALS OF NATURAL HAZARDS AND DISASTER MANAGEMENT

Time: 3 Hours          Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
To make students conceptually clear about the concept of disaster and interrelated concepts. Also, to familiarize with methodological tools and techniques used to study disasters.

SECTION-A
Concept of Hazards: Risk, Vulnerability and Disaster.
Types of Hazards: Natural, man-made.

SECTION-B
Natural Disasters: Floods, drought and desertification, earthquakes, landslides, avalanches, cyclones, forest fires.

SECTION-C
Regional Dimension of Hazard: Occurrence and trends with special reference to northwest India.

Case Studies: Floods in Delhi, Major Fires in Kolkata, Earthquakes in Bhuj, Rail Accidents in India.

SECTION-D
Disaster Management: Concepts relating to the Pre-disaster phase, emergency phase, post-disaster phase.

M.A. GEOGRAPHY (SEMESTER – II)

Books Recommended:

Essential Readings:


Further Readings:

5. Godschalk, D.R. et.al. (1999), Natural Hazard Mitigation: Recasting Disaster Policy and Planning, Island Press, Washington, D.C.

Pedagogy:
The students should be explained the interactive relationship between the natural and human processes. The platform from which we see this relationship remains human activities. Illustrations should be used from the latest articles on the subject appearing in geographic journals and newspapers and field visits.
M.A. GEOGRAPHY (SEMESTER – II)

Paper IV: Option – iii: GEOGRAPHY OF SETTLEMENTS WITH SPECIAL REFERENCE TO INDIA

Time: 3 Hours                          Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION-A

General Introduction, Evolution & Distribution of Settlements
Nature, Scope, Significance and Recent Trends in Settlement Geography;
Evolution of Settlements in India : Emergence of Village Settlements, Origin and Growth of Towns; Basic and Non-Basic Concepts in Settlement formation.
Distribution of Settlements, Spacing of Settlements -Application of Models of Christaller and Losch.

SECTION-B

Rural Settlements
Types of Rural Settlements, House Types, Morphology and Functions of Rural Settlements;
Rural Service Centres and their Role in Urbanisation Process. 8 Periods
Indian Rural Settlements in Different Micro-Environmental Conditions: (a) Mountains (b) Desert Region (c) In the vicinity of Urban Centres.

SECTION-C

Urban Settlements
Morphology of Indian Cities and Its Comparison with Western Cities; Functional Relations Between Urban Settlements and their umlands.

SECTION-D

Case Studies
Settlement Geography of Selected Indian Cities: Mumbai, Kolkata, Bangalore, Delhi.
M.A. GEOGRAPHY (SEMESTER – II)

Recommended Readings:


Supplementary Readings:

M.A. GEOGRAPHY (SEMESTER – III)

Paper–I: Town and Country Planning

Time: 3 Hours                                    Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A–D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
The major objective of this paper is to highlight the role of geographic concepts and methods in settlement planning at the micro level. Divided into four sections, it deals with conceptual and methodological issues, planning strategies, and case studies.

SECTION –A

Human Settlement: A brief history with its relevance in modern context.
Settlement System: Types and Functions.
Town and Country Planning Practice in India.

SECTION –B

Town Planning: Definition, nature, importance and scope
Preparation of town plan: Objectives, surveys and data collection for town planning with special reference to urban land surveys, formulation of policies, zoning, locational and space requirements for residential, work, and play areas.
Problems of town planning in India.
Urban planning policies in Indian Five Year Plans.

SECTION –C

Country Planning: Definition, nature, importance and scope.
Rural landuse and its determinants.
Rural landuse, land suitability, and soil surveys.

SECTION –D

Rural development in India during Five Year Plans.
Planning for the following problems of rural India:
(a) Drinking water, (b) Floods and Soils, (c) Public utility services, and (d) Poverty and employment.
M.A. GEOGRAPHY (SEMESTER – III)

Books Recommended:
Essential Readings:

5. TCPO, Regional Planning Efforts in India, Government of India, New Delhi, 1985.

Further Readings:

Pedagogy:
Distribution of a brief synopsis among students, prior to discussions in the class, on each topic, involving students in teaching and question-answer session at the end of each lecture will form the core of approach to class teaching. Listing on the black board the main headings of the theme to be discussed and the use of audio-visual aids, such as maps, transparencies and slides will be the guiding principle of teaching methodology. Organizing occasional field visits and inviting professionals as a guest faculty will be used to create bridges between the theory and practice of urban and regional planning.
M.A. GEOGRAPHY (SEMESTER – III)

Paper–II: Paper–II: Research Methodology in Geography

Time: 3 Hours               Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
This paper is to familiarise the students with basics of research and its significance. It aims to make them understand the ways data are collected, classified, tabulated and analysed. It also trains them to differentiate between casual and research based statements that helps them in their life.

SECTION –A

Meaning and objectives of Research: Types Significance of Research; Research Process.
Research Problem: Selection and Techniques.

SECTION –B

Research Design: Meaning, Need and features of a good design.
Measurements in Research, Scales: Techniques of developing measurement tools.

SECTION –C

Data collection: Methods, Preparation of questionnaires and schedules.
Surveys and experiments.

SECTION –D

Processing and Analysis of data: Statistics in research.
Hypotheses Formulation & Testing.
Interpretation and Report Writing.
Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
Students are expected to identify a small research problem. They must prepare a research proposal. Using suitable research methodology, they should try to answer their research questions.
M.A. GEOGRAPHY (SEMESTER – III).


Time: 3 Hours         Max. Marks: 100

Distribution of Marks:
(i) Theory paper will be of three hours carrying 50 Marks
(ii) Practical will be of 50 Marks.
   a) Practical record and viva voce (20+10) 30 Marks
   b) Two practical exercises set on the spot by the examiner 20 Marks

Instructions for the Paper Setters:-
Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
The main objective of this course is to expose the students to fundamental principles of Geographical Information Systems and Global Positioning System including basic concepts and definitions, methods and techniques.

SECTION –A

Introduction: Overview, History and Concepts of GIS, Scope and Application Areas, Purpose and Benefits of GIS, Components and Functional Elements of GIS.

Map Concept: Map scales and representation.

Map Projection: Coordinate system, datum, and projection systems.

SECTION –B

Data Input, Storage and Editing: Nature of Geographic Data: Spatial and Attribute Data, Concept of vector and raster based models;
Data Input Devices: Digitization; external data bases; storage and manipulation of GIS data bases.
M.A. GEOGRAPHY (SEMESTER – III)

SECTION –C

GPS: Introduction, Segments of GPS (Space segment, grand control segment, user segment) and its applications.

Data Acquisition: Data from Remote Sensing Imagery, Global Positioning System (GPS) based data acquisition.

SECTION –D

Cartography and Map Production: Nature of maps and cartography, Key map design principles, map symbology.

Presentation of GIS Output: Layout of Maps, Charting and Tabular representation of the results using GIS.

Books Recommended:

Essential Readings:


M.A. GEOGRAPHY (SEMESTER – III)

**Further Readings:**


**Pedagogy:**

Basic fundamentals of GIS and GPS are introduced by demonstrating with the help of audio visual aids. For GPS exercises students will be taken for a field trip to the university grounds. Audio visual aids like power point presentations and demonstration of practical exercises will be guiding principles of teaching methodology. Students will be preparing their practical exercises by working in the GIS lab on GIS softwares.
M.A. GEOGRAPHY (SEMESTER – III)
Paper–IV: Any one of the Following Optional Courses:
Option (i): Regional Development and Planning in India

Time: 3 Hours          Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:

− To familiarize the student with the theoretical foundations and conceptual grounding of this branch.
− To understand the regional development process in India.
− To sensitize the student about the changes taking place in regional structure of Indian economy.

SECTION –A
Concept of regional development, Regional Policies in the Indian Five Year Plans.

Experiences of regional planning in India –multi level planning (state, district, block and panchayat level planning).

SECTION –B
Centre state relations and the constitutional framework for multi level planning.

Devolution of financial resources and the multi–level planning.

SECTION –C
Regional backwardness, area development programmes for hill, drought–prone, and desert and border areas.

SECTION –D
Development plans for tribal areas, north– eastern region, command areas, KBK region of Orissa.

Books Recommended:
Essential Readings:


Further Readings:
2. Govt. of India, Five Year Plans, Plan Drafts–1st–9th Plan, Planning Commission, New Delhi.

Pedagogy:
The students should be encouraged to participate in classroom discussions on the regional dimensions of planning and regional development in India in terms of spatial structure of economy, society and associated issues such as poverty, disparities and unemployment.
M.A. GEOGRAPHY (SEMESTER – III)

Paper IV: Option (ii): Social Geography

Time: 3 Hours       Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:

- To familiarise the student with the theoretical foundations and conceptual grounding of this branch.
- To understand the formation of socio–cultural regions in the context of historical and social factors in India.
- To sensitize the student about the process of social transformation and change and its interface with developmental and political aspects in India.

SECTION –A

(a) Social Geography: Definition, nature and scope.
(b) Social geography in the realm of social sciences.

Concepts and themes in social geography:
(a) Social space.
(b) Social segregation.
(c) Social justice.
(d) Social well–being.
(e) Ethnicity.

SECTION –B

Evolution of socio–cultural regions in India:
(a) Evidence from classical literature.
(b) Core and peripheral regions.

Attributes of spatial distribution of:
(a) Tribes.
(b) Religion.
(c) Language.
(d) Caste.

SECTION –C

Social transformation and change in India:
(a) Modernization and sanskritization.
(b) Role of rural–urban interaction.
(c) Problems of social transformation.
M.A. GEOGRAPHY (SEMESTER – III)

SECTION –D

Social Diversity:
(a) Social and ethnic diversity of India and national integration.
(b) Cultural pluralism and development.

Books Recommended:

Essential Readings:

12. Subbarao, B., Personality of India, Oriental Institute, M.S. University of Baroda, Baroda, 1958.

Further Readings:

5. Sen, Amartya, and Dreze Jean, Indian Development : Selected Regional Perspectives, Oxford University Press, Delhi, 1996.

Pedagogy:
The students should be encouraged to participate in classroom discussions on the socio–spatial aspects of current issues of social, political and developmental importance.
M.A. GEOGRAPHY (SEMESTER – III)

Paper–IV: Option (iii): Geography and Eco Systems

Time: 3 Hours       Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.
Stencil/outline maps and coloured pencils are allowed.

Objectives:
− To appraise the students with the interrelationship between man and the environment in which he lives and also his linkages with other organisms.
− The students are to be made aware of the importance of conserving biodiversity to maintain ecological balance.
− Examples of some man induced ecological changes have been highlighted and restoration measures suggested.

SECTION –A

Components of the ecosystem: Abiotic, biotic.
Functional characteristics of ecosystems: Food chains and food webs; trophic levels; ecological pyramids; energy flow; nutrient cycling.
Ecological succession and equilibrium.

SECTION –B

Major ecosystems of the world: Tropical and temperate forest ecosystems, boreal ecosystems, grassland ecosystems, desert ecosystems.
Biodiversity: Concept; importance; hot spots; causes for the loss of biodiversity.

SECTION –C

Ecological changes over space and time.
Ecosystem stability and disturbance.
Man-made ecosystems: Agricultural, urban.

SECTION –D

Case studies of human induced ecological changes:
a) Hill ecosystems with specific reference to Punjab Shivaliks.
b) Wetland ecosystems with specific reference the Punjab wetlands.
c) Agricultural ecosystems with specific reference to the Green Revolution in Punjab.
M.A. GEOGRAPHY (SEMESTER – III)

Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
There must be interaction between teacher and students on different aspects of ecology with the help of models, charts and pictures. Emphasis should be given to the environmental problems faced by India in recent years.
M.A. GEOGRAPHY (SEMESTER – IV)

Paper–I: Regional Planning

Time: 3 Hours         Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section. Stencil/outline maps and coloured pencils are allowed

Objectives:

− To understand and evaluate the concept of region in geography and its role and relevance in regional planning.

− To identify the issues relating to the development of the region through the process of spatial organization of various attributes and their interrelationship.

− To identify the causes of regional disparities in development, perspectives and policy imperatives.

SECTION –A

The planning process : Concept and types; regional planning; concept, difficulties, rationale, principles and objectives.

Role of geography in regional planning.

SECTION –B

Preparation of a regional plan.

Regions for planning : Regional awareness, region and its evolution; planning regions; characteristics, hierarchy, need, demarcation; planning regions of India.

SECTION –C

Surveys for Planning: Concept and functions; types of surveys; regional surveys, diagnostic surveys, techno–economic surveys.

Role of remote sensing, global positioning system (GPS) and geographic information system (GIS).

SECTION –D

The process of Regional Development: Indicators of development; levels of regional development and disparities; strategies for development.

Case Studies from Selected Countries: Regional planning in USA (TVA); regional planning in India (DVC & NCR); regional planning in Netherlands (Polders).
Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
The students should be made to do sessional assignments based on diverse data to formulate regions at the local and regional levels and to identify the regional differentiations. They should be made conversant with the trends in the development of the regional aspects using ‘space’ in the multi disciplinary approach to regional development.
M.A. GEOGRAPHY (SEMESTER – IV)

Paper II: Field Based Project Report (Practical only)

Max. Marks: 100

Distribution of Marks:
Field Report: 80
Viva on Field Report: 20

Objectives:
1. The paper is designed to acquaint the student with the importance of field work as one of the methodologies in Geography.
2. The students are to be sensitized about pre–field work preparations, conduct of the field work, post–field work based and the writing of a field work report.

(Since this paper is of practical nature only, therefore contents of syllabus need not to be organized into SECTION s).

Field Based Project Report in Geography:
The project report will involve statement of objectives and scope of field investigation; methods of field work for studies of different scales (macro, meso, and micro); preparation of a questionnaire; sampling techniques, collection, processing, representation, analysis and interpretation of data/information. The candidates are required to write a project report on small assigned problem involving field investigations.

Note:
1. The candidates are required to submit their project reports one week before the commencement of examination to the concerned Head of the Postgraduate Department.
2. Assessment of practical record and viva voce on it will be done by a Board of Examiners, consisting of external examiner, internal examiner and the chairperson of the department.
3. Improvement/repeat cases must prepare either an improved form of their earlier practical record or prepare a new one. They must get it approved and signed by the faculty member teaching the course at their parent department.
4. Nearly Uniform Distribution of students amongst all the faculty members of the department.

Books Recommended:

Pedagogy:
The field–work exercises should aim at identification of locational attributes of selected elements and their areal associations. The students are to be trained through taking up exercises requiring field visits and generation of primary data, its processing and statistical and cartographic representation.
M.A. GEOGRAPHY (SEMESTER – IV)

Paper–III: Quantitative Methods in Geography (Theory and Practical)

Time: 3 Hours                      Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:
− To provide knowledge of statistical techniques and their application in geography;
− To train the students to apply these techniques and methods to the analysis of the geographic problems.

Distribution of Marks:
(i) Theory Written paper will be three hours carrying 50 Marks
(ii) Practical will be 50 Marks.
   a) Practical record and viva voce (20+10) 30 Marks
   b) Two practical exercises set on the spot by the examiner 20 Marks

SECTION –A
Quantification in Geography: Types of spatial data (point, line and area) and levels of their measurement (nominal, ordinal, interval and ratio), census, and sample surveys, sampling designs (with special reference to spatial data).

SECTION –B
Measures of Central Tendency: Mean, median and mode; mean centre, median point, point of minimum aggregate travel distance, and population potential.

SECTION –C
Measures of Dispersion: Range, quartile deviation, mean deviation, standard deviation and variance; coefficient of variability and Lorenz Curve, index of spatial dispersion, median distance, standard distance and nearest neighbor analysis.

SECTION –D
Correlation and Regression : Scatter diagram, correlation by Spearman’s Rank Difference and Karl Pearson’s Product Moment Methods, regression analysis, construction of regression line; Coefficient of areal correspondence.
M.A. GEOGRAPHY (SEMESTER – IV)

Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
The students should be made to understand the importance of quantification in Geography. They should be taught the basic techniques and their application in geographic research by giving simple and small examples from the field of Geography.
M.A. GEOGRAPHY (SEMESTER – IV)

Paper IV: Any one of the Following Optional Courses:
Option (i): GEOGRAPHY OF MANUFACTURING INDUSTRIES

Time Allowed: 3 Hours         Max. Marks: 100

Instructions for the Paper Setters:

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION –A

General Introduction:

SECTION –B

Location of Manufacturing Industries:

SECTION –C

Patterns and Problems of Industries:
Geography of the following Industries of the World: Iron and Steel, Jute Textiles, Cotton Textiles, Oil Refining, and Engineering Industries.

SECTION –D

Case Studies:
A study of the following major manufacturing regions: Hooghly Belt of India, Ruhr Valley Region, Ural Region, Lake Chicago and Mid–Atlantic Regions of U.S.A.
13 Periods

Essential Readings:
M.A. GEOGRAPHY (SEMESTER – IV)

Paper–IV (Option–ii): GEOGRAPHY OF MIGRATION

Time: 3 Hours  Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (Specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

SECTION –A

Geography of Migration : meaning, nature, scope and significance
Determinants of migration.
Types of migration.

SECTION –B

Theories and Models of Migration : E. G. Ravenstein, J.Q. Stewart, G.K. Zipf, S. A. Stouffer, E.S. Lee, T. Hagerstrand and W. Zelinsky

SECTION –C

Some important international migrations in 20th century.
Recent trends of migration in migration patterns in India & Punjab; female component in migration.
Causes and consequences of migration.

SECTION –D

Migration and its Demographic significance.
Migration and Development.
Migration and Environment.
Patterns of Refugee Migration on Global Level.

Recommended Readings:
M.A. GEOGRAPHY (SEMESTER – IV)

Paper–IV (Option–iii): Fundamentals of Agricultural Geography

Time: 3 Hours        Max. Marks: 100

Instructions for the Paper Setters:-

Eight questions of equal marks (specified in the syllabus) are to be set, two in each of the four Sections (A-D). Questions may be subdivided into parts (not exceeding four). Candidates are required to attempt five questions, selecting at least one question from each Section. The fifth question may be attempted from any Section.

Objectives:

− To familiarize the students with the basics in agricultural geography, starting from its nature, contents, progress, approaches, determinants etc., to the important concepts like cropping intensity, crop–concentration, crop pattern, crop combinations, diversification, commercialization, agricultural development etc.
− To provide them with the understanding of agricultural regionalization, landuse and land capability classifications as well as classification of agricultural types.

SECTION –A
The nature, subject matter and progress in Agricultural Geography.
Approaches: (i) commodity, (ii) systematic, (iii) regional.
Determinants: (i) physical, (ii) economic, (iii) socio–cultural.

SECTION –B
Selected agricultural concepts and their measurement – (a) intensity of cropping, (b) degree of commercialization, (c) diversification and specialization, (d) efficiency and productivity.

SECTION –C
Land–use survey and classification (British and Indian).
Land capability classification (U.S. and Britain).

SECTION –D
A critical evaluation of the classification of world agriculture with special reference to Whittlesey.
M.A. GEOGRAPHY (SEMESTER – IV)

Books Recommended:

Essential Readings:

Further Readings:

Pedagogy:
The course should fully acquaint the students with the understanding of agricultural geography as a developed branch of geography. The students should be made to learn the major concepts, factors affecting agricultural landuse, different types of agricultural landuse etc. by giving simple examples from their own and neighboring areas.