## STRUCTURE OF SYLLABUS—M. A.

<table>
<thead>
<tr>
<th>COURSE</th>
<th>SEMESTER</th>
<th>PAPER NO.</th>
<th>TITLE OF THE PAPER</th>
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<tr>
<td>M.A.</td>
<td>I</td>
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<td>OR IV(B)</td>
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<td>OR IV(B)</td>
<td>Computer Application in Geography</td>
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<td>V</td>
<td>Practical: Research Methodology and Project / Dissertation</td>
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</table>
M.A., SEMESTER-I

PAPER-I : TITLE- GEOGRAPHICAL THOUGHTS

Unit-I
The Field of Geography; Geography as a Discipline; Fundamental Concepts; place of geography in the Classification of Sciences & other Disciplines; Geography as a Natural as well as Social Science.

Unit-II
Historical Development During Ancient and Medieval Period; Contribution of Greeks, Roman, Indian, Arabs & Renaissance; Contribution of varenius & Immanuel Kant; Concept of Space in Geography: Material Space & Social Space.

Unit-III
Modern Geographical Thoughts; Contribution of German, French, British, American school of Thought; Founder of Geography: Humboldt, Ritter & Ratzel; Dualisms and Dichotomies; Systemat/Regional & Determinism/possibilism.

Unit-IV
Conceptual & Methodological Development During 20 Century; Quantitative Revolution & GIS; Location Analysis, Paradigms, Laws, Theories & Models; Recent Trends & Modern Themes in Geographical thought: Positivism, Radicalism, Behaviouralism and Humanism.

M.A., SEMESTER-I

PAPER-II : TITLE: GEOMORPHOLOGY

Unit-I

Unit-II
Endogenitic processes; Continental Drift; Plate Teetonics; Isostasy; Seismicity; Vulcanicity; Folded Structure & Topography; Faulted Structure & Topography.

Unit-III
Exogenitic processes; Mass Wasting & Different Geomorphic Agents & Processes: Running Water; Wind; Glacier; Wave & Under Ground Water.

Unit-IV
Evolutions and Development of River Valleys; Drainage pattern; and their significance; Regional Geomorphology of Middle Ganga Plain. Applied Geomorphology.

Suggested Readings
DEPARTMENT OF GEOGRAPHY
UNIVERSITY OF LUCK NOW, LUCKNOW
M.A., SEMESTER-I

PAPER –III : TITLE: POPULATION GEOGRAPHY

Unit-I
Nature, Scope & Development of population geography; Source & Types of population
Data: Census, Sample Survey & Vital Registration System; Theories of population:
Classical & Modern.

Unit-II
World Population: Growth, Causes & Consequences; Factors Affecting population
Distribution; Demographic Transition Theory; Migration Types & Determinants.

Unit-III
Population Characteristics: fertility & Mortality; Age & Mortality: Age & Sex Structure;
Occupational Structure; Human Resource Development & Human Development Index;
Urbanization.

Unit-IV
Population Resource Region of India; Population Growth & Distribution in India;
Density Types; Population Problems & Population Policy of India.

PAPER-IV : TITLE-AGRICULTURAL GEOGRAPHY

Unit-I
Nature, Scope, Significance & Development of Agriculture Geography; Approaches to
the study of Agriculture Geography; Methods & Types of Cultivation.

Unit-II
Determinants of Agricultural Land Use; Land Holding & Land Tenure Systems; Land
Reforms; Intensity of Cropping; Diversification; Efficiency & Productivity; Crop
Combination Regions of India.

Unit-III
Theories of Agricultural Location Based on Several Multi-Dimensional Factors; Von
Thunes’s Theory of Agricultural Location & its Recent Modifications; Whittlessey’s
Classification of Agriculture Regions; Land Use & Land Capability.

Unit-IV
Agriculture in India; Green Revolution; White Revolution; Food Deficit & Food Surplus
Regions; Nutritional Index; Specific problems in Indian Agriculture & their
Management; Dry Land Agriculture; Agricultural Policy of India.
M.A., SEMESTER-I

PAPER-V : TITLE: PRACTICAL GEOGRAPHY (CARTOGRAPHY)

Unit-I
Introduction to Cartography; Slope Analysis: Wentworth, G.H. Smith, Raisz, Henry 
Robinson’s methods; Geological Map; Block Diagrams: One & Two Point Perspective;
Digital Cartography; Map Design & Layout.

Unit-II
Bonne’s Polyconic Projection; Mercators Projection; Zenithal Projection: Zenithal Equal
Area Projection (polar Case). Zenithal Sterographic Projection (Equatorial Case);
Gnomonic Projection (Equatorial Case).

Unit-III
Mapping of spatial Data; Mapping of point Data; Grueated Mapping; Mapping of Line
Data; Flow Line Mapping Of Area Data; Mapping of Volume Data; Choropleth Mapping;
Dasymetric mapping; Isopleths Mapping, Dot mapping; Multivariate Mapping.

Unit-IV
Designing of Maps; Drafting Techniques; Drafting Materials; Base Map Compilation for
Thematic mapping; Thematic Map Series & Thematic Atlases; Interpretation of Aerial
Photographs & Satellite Imagery; Geographical Information System
PAPER-I : TITILE- GEOGRAPHY OF RESOURCES

Unit-I
Concept of Resource as Related to Economic, Technological & Cultural Development Stages; Classification of Resources According to Biogenesis, Renewability, Availability & Distribution Condition; Distinction Between Diversity & Disparity; Resources Appraisal

Unit-II
Pattern & Use of Major Resources; Land Resources: use; & Misuse; Protective Measures to Check Soil Erosion; Water Resources: Domestic & Industrial Use; Use in Irrigation & Water Transport, Hazards Associated With Unscientific Use; Marine Resources.

Unit-III

Unit-IV
Mineral & Power Resources (Iron Ore & Coal); major Industrial Regions of the world; Industrial Location Theories: Weber, Losh & Isard; Resource Planning, Conservation & Management; Conservation For Benefit of all; Environmental Sustainability & Sustainable Development of Resources

PAPER-II : TITILE- CLIMATOLOGY

Unit-I
Meaning, Definition & Scope of Climatology; Weather & Climate Components; Composition & Structure of the Atmosphere; Insolation: Solar Radiation and Heat Budget; Temperature-Measurement & Distribution: Pressure and Winds.

Unit-II
Water Vapour. Humidity Measurements; Evaporation; Condensation & Sublimation; Clouds: Formation & Classification; Precipitation: Causes, Forms, Processes and types; types and Distribution of Rainfall; Air Masses and Fronts; Atmospheric Disturbances: Cyclone and Anticyclone.

Unit-III
Climatic Classification of the world: Koppen & Thornthwaite: Major Climatic Region of the world & Study of Tropical Rain Forest, Savana and Hot Desert Type of Climate; Effect of El-Nino, La-Nina and Southern Oscillation on weather and Climate of the World.

Unit-IV
Global Climatic Change: Evidences; Role of "Earth Summit" Conferences: Climatic Cycles & Theories of Climatic Changes; Microclimatic Environment; City Climate & Rural Climate; Air Pollution: Acid Rain; Ozone Depletion; Greenhouse Effect and Global Warming;
M.A., SEMESTER-II

PAPER-III : TITLE- POLITICAL GEOGRAPHY
MM.-70+30(Theory + Internal Marks)

Unit-I
Definition, Nature and Scope; Geography, Politics, Geopolitics& Political Geography; History and Development of political Geography; Approaches to the Study of Political Geography; Evolution of the Modern State; Organization & Structure of State or National political System.

Unit-II
Concept of Nation, State and Nation- State; Geographic Characteristics of States: Size, Shape, Location, Cores and Capitals, Nation Building\Nationalism; Definition of Frontier and Boundaries; Distinction Between Frontier and Boundaries; Genetic, Functional & Morphological Classification of Boundaries with their Role ;and ;Importance in States Functioning.

Unit-III
Global Geo-Strategic Views: Mahan, Mackinder, Spykman & Seversky with other Views Related to Heartland and Rimland; Cohen's Views; Unitary and Federal Forms of Governance.

Unit-IV
Political Geography of India; Resource Development & Power politics; India's Neighbours & Geopolitical Study of Indian Ocean; Political geography of SAARC Region; Electoral Geography; Changing Political Map of India and Inter-state Disputes Related to Language and Others; Problems of Border States of India ;and Emergence of New States& their Demands.

PAPER-IV : TITLE-URBAN GEOGRAPHY
MM- 70+30( Theory+Internal Marks)

Unit-I

Unit-II
Ecological Growth; Theories of Internal Structure of Cities; Concentric Zone Model, Sector Model, Multiple Nuclei Model, Functional Morphology; Urban Influences: Umland & Rural- Urban Fringes.

Unit-III
Study of Regional Urban patterns; Central place Theory of Christaller & Losch; Growth Pole Theory of Perroux, Urban Function: Basic & Non Basic Function: Metropolitan City & Changing Urban Function; Rank Size Rule ; Primate City.

Unit-IV
Contemporary Urban Issues; Urban poverty; Housing; Slum; Study & Preparation of Master plan of Selectyed Cities.
DEPARTMENT OF GEOGRAPHY
UNIVERSITY OF LUCK NOW, LUCKNOW

M.A., SEMESTER-II

PAPER-V : TITLE-PRACTICAL GEOGRAPHY
(Field survey- part I, Statistical Method in Geography-Part I, Field Study Report)

Field Survey and Deskwork-60
Record-20, Viva-20

Section A- Field Works Based on Instrumental Survey and statistical Methods

Unit-I
Surveying: Definition, Nature, Scope & History of Surveying; Types of Surveying; Selected Surveying Instruments; Procedure & Methods of Surveying; Plane Table: Importance, Use, Methods & Procedure of Surveying, use of Indian Clinometer.

Unit-II
Prismatic Compass: Bearing, Methods & Precautions of Using the Instruments; Methods of Prismatic Compass Surveying; Correction & Plotting of Bearings; Closing Error: Elimination of Error, (Bowditch Method);

Unit-III
Frequency, Distribution Measurement of Central tendency, mean Deviation and Standard deviation.

Unit-IV

Section B – Field works Based on Education Tour

Organized Field visit (minimum 7 days) to collect field data. Field work report should be prepared based on collected data and it should be submitted in practical examination. Main objective of the filed work is to provide the students with the understanding of ground reality of a chosen site i.e. village/town/tourist site by observation.
M.A., SEMESTER-III

PAPER-I : TITLE-REGIONAL PLANNING AND DEVELOPMENT
M.M. 70+30 (Theory+Internal Marks)

Unit-I
Concept of Planning; Types of Planning; Concept of Regional Planning; Region: Types of Region; Methods of Delineation of Different Types of Region.

Unit-II
Regional Planning Theories; Growth Pole Theory; Spatial Diffusion Theory; Cumulative-Causative Model; Human Development Index & its Indicators; Regional Disparity In India.

Unit-III
Planning Regions; Planning Regions of India (Macro, Meso & Micro); Planning for Command Area Development; Watershed Management; Hill & Tribal Area Development.

Unit-IV
Concept of Multi-level Planning; Decentralised Planning; People Participation in Planning Process; Panchayati Raj System; Environmental Issues in Regional Planning; Planning of Sustainable Development.

PAPER-II : TITLE : OCEANOGRAPHY
M.M. 70+30 (Theory + Internal Marks)

Unit-I
Basic Oceanography; Surface Bottom Relief: Pacific Ocean, Atlantic Ocean & Indian Ocean.

Unit-II
Physical & Chemical Properties of Sea Water; Interlink Between Atmospheric Circulation & Circulation Patterns in the Oceans; Thermohaline, Waves & Tides.

Unit-III
Ocean Current: Cause, Types, Currents of Pacific, Atlantic & Indian Ocean; Effects of Ocean Currents; El Nino, La Nina & Southern Oscillation.

Unit-IV
Ocean Deposits: Types & Distribution; Coral Reefs & Atolls; Theories of their Formation & Coral Bleaching; Tsunami; Sea Level Changes: Causes, Evidence & Impact.
DEPARTMENT OF GEOGRAPHY
UNIVERSITY OF LUCK NOW, LUCKNOW

M.A., SEMESTER-III

PAPER-III(A): TITLE-SOCIAL AND CULTURAL GEOGRAPHY
M.M. 70+30(Theory +Internal Marks)

Unit-I
Social Geography: Nature, Meaning & Development; Philosophical Bases of Social Geography (Positivism, Structuralism); Social Structure & Social Processes; Concept of Social Space.

Unit-II
Elements of Social Geography: Ethnicity, Tribe, Dialect, Language, Caste & Religion; Socio-Cultural Regions of India; Linguistic Elements in India.

Unit-III
Cultural Geography: Nature, Meaning & Development; Culture: Definition, Elements & Components; Culture Areas & Cultural Realm.

Unit-IV
Racial Elements in India's Population; Tribes of India (Jaunsar Babar, Bhil, Gond, Toda, Naga); Tribes of World (Eskimo, Pigmy, Bushman.)

PAPER-III (B) : TITLE-HUMAN GEOGRAPHY
M.M. 70+30 (Theory+Internal Marks)

Unit-I
Nature & Scope of Human Geography; Branches of Human Geography; Concept of Man Environment Relationship; Determinism, Possibilism & Neo- Determinism.

Unit-II
Tribes: Eskimo, Bushman, Masai, Khirgij. Division of Mankind into Racial Groups: Characteristics & Distribution.

Unit-III

Unit-IV
Settlements: Types & Pattern; Rural and Urban Settlement in India & World; Rural Settlement & House Types in India; Cultural Regions of the world.
M.A., SEMESTER-III

PAPER-IV(A) : TITLE -REGIONAL GEOGRAPHY OF WORLD, PART-I
(ASIA,NORTH AMERICA,AND EUROPE)
M.M. 70+30(Theory, Internal Marks)

Unit-I
Asia: Physiographical region Climatic region Natural Vegetation Types, Agricultural regions,

Unit-II
Asia: Minerals,Power resources Major Industries, Industrial region, Geographical study of Ganga River basin.

Unit-III
North America: Physiographic region Climatic region, Natural Vegetation types, Agricultural regions, Industrial region, Geographical study of Colorado river basin.

Unit-IV
Europe- Physiographic regions, Climatic regions, Natural Vegetation Types, Agricultural regions, Industrial Region; study. Of Mediterranean region.

PAPER-IV(B):TITLE-GEOGRAPHY OF RURAL SETTLEMENT AND DEVELOPMENT
M.M. 70+30(Theory+Internal Marks)

Unit-I
Settlement Geography: Meaning, Definition & Scope; Approaches to study; Evolution of Rural Settlement; Size & Distribution with Theoretical Models.

Unit-II
Settlement Hierarchy: Christaller & Losch; Hierarchy of Settlement in India, Site & Situation of Rural Settlement; The Evolution of street pattern in Rural Settlements; Morphological Characteristics of Rural Settlement.

Unit-III

Unit-IV
Rural Urban disparity Problems of Rural Settlement, Rural Development Program and Policy. Concept of MANREGA and NHRM and its role for Rural development, Geographical study of Different Rural development programme.
A-

Unit-I
Levelling Instruments, Dumpy level: Process of Surveying, use and Importance, contour Plan Preparation.

Unit-II
Use and Handling of Sextant, Theodolite, Abney level.

Unit-III
Correlation analysis: Karl Pearson and Spearman’s rank correlation, Correlation coefficient.

Unit-IV
Regression analysis: properties, Least Square estimate, Chi-square test.

B- Field Study tour away from Lucknow & more than 500 km. like a Hill area or plateau area or coastal area or desert area or delta region or any suitable Geographical area or Socio-economic survey of local geographical area in unavoidable circumstances.
PAPER-I : TITLE-GEOGRAPHY OF INDIA

Unit-I
Introduction: location, Shape & Size; Geology of India; Main Physiographic Regions; Drainage Systems; Climate and climatic region, Western disturbances, norwester.

Unit-II
Major Soil Types: Distribution, Major Forest Types: Distribution, Agriculture; Major Crops (Wheat, Rice, Tea); Green, White and Blue Revolution; Agricultural Regions & Agro Climatic Regions. Mineral and Power resources Industrial region.

Unit-III
Growth & Distribution of Population; Composition of Population; Population Theories Related to India, Concept of over Population and optimum Population.

Unit-IV
Urban Population growth and distribution, Population region of India, Transport and Trade, Regionalization of India, Importance of Indian Oceans, Main Tension of India, Socio-economic Disparity of India.

PAPER-II : TITLE–GLOBAL ENVIRONMENTAL ISSUES

Unit-I

Unit-II
Global Concerns: Global Warming & its Various Implications; Acid Rain & Ozone Depletion; Non- Degradable Waste & its Disposal; Soil Degradation: Erosion, Salinisation, Alkalinisation; Desertification & Deforestation;

Unit-III
Environmental degradation and agricultural pattern, Conservation of Biodiversity with Special Reference to India; Biodiversity – Wild, Aquatic & Agriculture. Environmental degradation and Industrial development, Environmental degradation and population, Environmental degradation and forests.

Unit-IV
Environmental policy; Environmental protection Act with Social Reference to Legislation in India, Environmental Impact Assessment (EIA); Environmental Management Planning (EMP). Fluctuation of sea rise, and climatic change, Evidence of Climatic changes.
PAPER-III (A) : TITLE –REMOTE SENSING & GIS
M.M. 70+30(Theory Internal Marks)

Unit-I

Unit-II

Unit-III
Geography & Geographic Information System: Definition & Development of GIS; Elements of GIS; Computer Environment for GIS; Spatial Data: Elements & Types of Spatial Data; GIS Data Format for Computer Environment; Raster & Vector Data Structures; Data Conversion; GIS Technology; Geo- Referencing of Spatial Data; Data Input into GIS;

Unit-IV
GIS Database: Creation of Spatial & Non- Spatial Data Base; Database Management Systems; Data Integration & Analysis in GIS; Spatial Modeling; Digital Elevation Models (DEM); Integration of GIS with Remote Sensing & Global positioning System (GPS); Application of GIS; Application of GIS in the Development of Different Types Information System; Decision Support System (DSS.)

PAPER-III (B) : TITLE-REGIONAL GEOGRAPHY OF WORLD
(South America, Africa and Australia)
MM: 70+30 (Theory+ Internal Marks)

Unit-I
South America: Physiographic regions climatic regions, types of natural vegetation, Agricultural regions,

Unit-II
South America : Mineral, Power resources, Major Industries, Industrial regions, Geographical study of Amazon basin.

Unit-III
Africa: Physiographic regions, climatic regions, types of natural regetiation Industrial regions. Geographical study of Nile Rever basin.

Unit-IV
Australia : Physiographic regions, climatic regions, types of natural vegetation , Industrial regions. Geographical study of Murray darling basin.
M.A., SEMESTER-IV

PAPER-IV (A) : TITLE- GEOGRAPHY OF TOURISM
M.M. 70+30(Theory+Internal Marks)

Unit-I
Concept of Leisure & Tourism; Types of Tourism; Meaning, Definition, Scope & Significance of Geography of Tourism; Geographical Basis of Tourism; Resources & Infrastructure for Tourism: Transportation, Accommodation & Basic Infrastructure.

Unit-II
Impact of Tourism: Physical, Economical & Social Cultural Impacts; Concept of Ecotourism; New Trends in Tourism.

Unit-III
Globalization & Tourism; Tourism in India; Resource & National, Tourism Policy of India; Tourism in Uttar Pradesh; Tourism Organizations.

Unit-IV
Tourism Marketing: Marketing Concepts & Marketing in Tourism; The Tourist Product; Segmentation- A Priori Segmentation; Tourism Circuits; Tour Agencies.

PAPER-IV (B) : TITLE –COMPUTER APPLICATION IN GEOGRAPHY
M.M. 70+30(Theory+ Internal Marks)

Unit-I
Computers: Definition, Characteristic; Hardware & Software; Number System; Operating Systems; Introduction to DOS, WINDOWS, WORD & EXCEL; Computer & Geographic Data: Scale of Measurement, Location Data, and Data Structure.

Unit-II
Computers in Cartography: Hardware and Software for Computer Mapping; A; Application of Computer Cartography; Simple Exercises for Representation of Geographic Data: Histogram, Bar Graphs, Line Graph, Multiple Line Graph, Scatter Diagram & pie Diagram.

Unit-III
Computation of Central Tendency Value; Quartile; Standard Deviation; ‘r’ Value & Trend Line, with the with the help of computers.

Unit-IV
Importance of Information Technology in Geographical Studies; Advantages of Internet, Browsing & surfing the Geographical sites; Web Pages; Portals & Down Loading Files.
(A). **Introduction to Research Methodology**

Framework or Research. Concept & Significance of Research in Geography; Philosophy & Methods: Empiricism, Positivism, Behaviorism. Primary & Secondary Data; Data Collection & Arrangement; of Statistical & Cartographic Techniques; Application of Computer & GIS. Production & Arrangement of Data; Analysis of Data & Maps; Quantitative & Qualitative Interpretations;

(B) **Project Report/Dissertation**

On a area of geography.