NATIONAL EDUCATION POLICY-2020

PAPER CODING AND CREDIT DISTRIBUTION

M.A. (GEOGRAPHY)

S.No.	Name of Degree	SEMESTER	TITLE OF PAPER	CREDITS	CODE NUMBER
1	Bachelor (Research) of Arts in Geography	VII	Geomorphology	4	A110701T
			Geographical Thought	4	A110702T
			Environmental Studies	4	A110703T
			Climatology	4	A110704T
			Practical	4	A110705P
			Research Project		
2		VIII	Geography of India	4	A110801T
			Population Geography	4	A110802T
			Settlement Geography	4	A110803T
			Agricultural Geography	4	A110804T
			Practical	4	A110805P
			Research Project	8	A110806R
			One Minor Paper to be selected from OTHER FACULTY in VII or VIII Semester	4/5/6	
3	Master of Arts in Geography	IX	Economic Geography	4	A110901T
			Urban Geography	4	A110902T
			Geography of Tourism	4	A110903T
			Oceanography	4	A110904T
			Practical	4	A110905P
			Research Project		
4		X	Research Methodology	4	A111001T
			Remote Sensing	4	A111002T
			Resource Geography	4	A111003T
			Applied Geography	4	A111004T
			Practical	4	A111005P
			Research Project	8	A111006R

Students may choose **MINOR** paper from Faculty of Science/Commerce/Languages/Fine Art and Performing Art/Education/Rural Science.

NATIONAL EDUCATION POLICY 2020

SYLLABUS FOR CREDIT DISTRIBUTION FOR GEOGRAPHY WITH PRACTICAL (M.SC./M.A)

Year	Name of Degree	Semester	Paper	Maximum marks		Total Marks	Credits	Total Credits/ Semester	Total Credits
				External	Internal				
4	Masters in Faculty (Bachelor Research) If leave in IV year	VII	GEOMORPHOLOGY A110701T	75	25	100	4	24	52
			GEOGRAPHICAL THOUGHT A110702T	75	25	100	4		
			ENVIRONMENTAL STUDIES A110703T	75	25	100	4		
			CLIMATOLOGY A110704T	75	25	100	4		
			MINOR	75	25	100	4		
			(PRACTICAL) A110705P	100		100	4		
		VIII	GEOGRAPHY OF INDIA A110801T	75	25	100	4	28	
			POLPULATION GEOGRAPHY A110802T	75	25	100	4		
			SETTLEMENT GEOGRAPHY A110803T	75	25	100	4		
			AGRICULTURAL GEOGRAPHY A110804T	75	25	100	4		
			(PRACTICAL) A110805P	100		100	4		
			RESEARCH PROJECT A110806R	100		100	8		
5	Masters in Faculty	IX	ECONOMIC GEOGRAPHY A110901T	75	25	100	4	20	48
			URBAN GEOGRAPHY A110902T	75	25	100	4		
			GEOGRAPHY OF TOURISM A110903T	75	25	100	4		
			OCEANOLOGRAPHY A110904T	75	25	100	4		
			(PRACTICAL) A110905R	100		100	4		
		X	RESEARCH METHODOLOGY A111001T	75	25	100	4	28	
			REMOTE SENSING A111002T	75	25	100	4		
			RESOURCE GEOGRAPHY A111003T	75	25	100	4		
			APPLIED GEOGRAPHY A111004T	75	25	100	4		
			(PRACTICAL) A111005P	100		100	4		
			RESEARCH PROJECT A111006R	100		100	8		

M.A Previous, Semester VII
Paper one
(Theory)

Geomorphology A 1107017

Unit I Geomorphology: Nature and Scope

Fundamental Concepts: Geological structures and Landforms, Polygenetic evolution of land scape

Unit II Evolution of Earth's Crust:

Isostacy, Plate tectonics

Orogenetic structures with reference to the evolution of Himalayas

Unit III Earth's Movement: Epeirogenetic and Orogenetic movements

Forces of crustal instability: Earth's quake and Vulcanicity

Unit IV Evolution of the following Landforms:

Fluvial landforms, Arid Landforms, Glacial Landforms

Karst Landforms and Marine Landforms

Unit V Landscape evolution Models: Davis, Penck

Geomorphic Hazards

Hydrogeomorphology

Suggested Readings:

1. William D. Thornbury - Principal of Geomorphology
2. Embleton and Kings – Glacial and Periglacial geomorphology
3. Savindra Singh – Geomorphology
4. Enayat Ahmad – Geomorphology
5. P. Dayal – Geomorphology
6. V. K. Sharma – Geomorphology: Earth's Surfaces and Forms
7. Wooldridge and Morgan – An outline of Geomorphology
8. R. N. Tikka Physical Geography

M.A Previous, Semester VII
Paper Second
(Theory)

Geographical Thoughts A1107027

Unit I Geography: Meaning, Nature and Scope

General character of geography during ancient and medieval period

Founder of modern geography: Contribution of German, French, British and American Schools

Unit II History and development of geographical thoughts in India

Modern Indian Geography: Prospects, Problems and future

Unit III Conceptual development and changing paradigms in Geography

Man, and Environment: Determinism and Possibilism, Neo Determinism, Areal Differentiation and spatial Organization

Unit IV Philosophical and Methodological Development in Geography during the 20th century: Positivism, Quantitative Revolution models – Definition and Types

Unit V Applied Geography

Behavioral Geography

Radical Geography

Humanistic and Welfare Approach

Suggested Reading:

1. R. Hartshorne (1959): Perspective on nature of geography
2. R. Minshull (1970): The changing nature of geography
3. R. J. Johnson (1997) Geography and geographer
4. Richard Pee (1998) Modern geographical thought
5. Milton E. Harvey & Brian P. Holly (1989): Themes in Geographical thought
6. D. Harvey (1969): Explanation in Geography

M.A Previous, Semester VII
Paper Third
(Theory)

Environmental Studies A110703T

Unit I	Meaning and Scope of Environmental Studies
	Ecology and Ecosystem
	Components of ecosystem- Complete and incomplete ecosystem
	Types of ecosystems – Marine and Terrestrial
Unit II	Environmental degradation: Causes and effects
	Pollution: Air, Water and Soil
Unit III	Global Warming – Causes and effects
	Sea Level changes
	Ozone Depletion
	Climate Changes
Unit IV	Environmental Hazards and disasters
	Floods and droughts in India
	Man induced environmental changes with special reference to Ganga and Yamuna Projects
Unit V	Environmental Legislation: The Stockholm conference and Kyoto conference
	Environmental laws in India: The wildlife act, Forest act.

Selected Readings:

1. Saxena. H. M.: Environmental Geography
2. Singh, Savindra: ParyavaranBhugol
3. Odum P.: Fundamentals of ecology
4. Chandan, R. C.: Environmental Awareness
5. Detwyler, I. R.: Man's Impact on environment
6. Embelon, C.: Natural Hazards and global change
7. Morgan. A. E.: Dams and other disasters
8. Bara, M. C. (ed.): Proceedings of International Conference on Disaster Management. Guwana 23- 26 april. 1998.

M.A Previous, Semester VII
Paper Fourth
(Theory)

Climatology

A 1107047

Unit I	Nature and Scope of climatology and its relation with meteorology
	Composition and structure of the atmosphere
	Insolation: Heat budget of the Earth
	Distribution of temperature and pressure
Unit II	Airmasses: characteristics and classification
	Fronts: Types, frontogenesis and frontolysis
	Tropical and temperature cyclones
	Anticyclones
Unit III	Climate classification of Koppen and Thornwaite
	Evidences of climate change
	Global warming – causes and consequences
Unit IV	Planetary wind system, Jet streams, Monsoon mechanism; El Nino and La Nina
Unit V	Causes and consequences of Acid rain , cloud burst , Tornedo and Desertification

Selected Readings:

1. Savindra Singh: Climatology
2. D. S. Lal: Climatology
3. A. Miller: Climatology
4. E. Aguado E, and J. E. Brent: Understanding Weather and Climate
5. S. M. Jain: BhautikBhugol
6. AlkaGautam: JalvayuAvum Samundra Vigyaan
7. Sharma and Vatal- Oceanography forGeographers

M.A Previous, Semester VII
Paper Fifth
Minor Paper
(Theory)

Minor

Unit I Geography: An introduction
Branches of Geography
Relationship with other sciences.

Unit II Basic concept of Geography
Man -Environment relationship

Unit III Cartography: Meaning, nature, techniques and tools, field study.

Unit IV Remote sensing techniques: Introduction and interpretation, Geographical information system (GIS)

Unit V Recent trends and availability of career opportunity

Selected Readings:

1. Introduction to Geography (SD Kaushik Rastogi publication Meerut)

M.A Previous, Semester VII
Paper Sixth
(Practical)

Cartogram and Thematic maps A110705P

Unit I Representation of Statistical Data- Band Graph, Ergo graph

Circle and Spherical Diagram

Dispersion and scatter Diagram

Pyramid diagram – Simple and Compound

Unit II Definition and classification of map

Map as a data model

Tools of map – making: lettering and symbolization of maps

Climate Maps – Hythergraph, Climograph, and Windrose

Interpretation of Weather maps

Unit III Distribution Maps – Types and methods of drawing thematic maps:

Chorochromatic, choroschematic, choropleth and isopeth

Note: The students have to attempt three questions, one from each unit with internal choice

The distribution of marks shall be as follows

1. 3 exercises: 60 marks
2. Sessional work: 20 marks
3. Viva-voce: 20 marks

M.A Previous, Semester VIII
Paper Seventh
(Theory)

Geography of India A110801T

Unit I Physical setting of India: Structure and Relief

Origin and Characteristics if Indian monsoon

Soils of India: types & characteristics

Unit II Natural vegetation and forest resources in India

Sources of Power: Coal, Petroleum, Natural Gas and Hydroelectricity

Unit III Analysis of Agro-Based Industries (Sugar, Cotton)

Analysis of Mineral-Based Industries (Iron, Steel)

Industrial regions of India

Seaports of India

Unit IV Population: Growth, distribution and density of population

Population problems and their solutions

Unit V Socio-Economic studies of the following natural regions of India

- Upper Ganga Plain
- Rajasthan Plain
- Malabar Coastal Plain
- Kashmir and Ladakh

Selected Readings:

1. Wadia, D. N.: Geology of India
2. Singh, J.: An Agricultural atlas of India
3. Ganguly, B. N.: Trends of Agriculture and Population in the Ganges valley
4. Sharma, T. R.: Location of Industries in India
5. Sinha. B. N.: Industrial Geography of India
6. brown, J. C.& A. R. Dey: India's mineral Wealth
7. Sovant, M. V.: The Population problem in India: A Regional approach
8. Chauhan. B. S. & Gautam, Alka: Bharat
9. Singh. Copal: Bharat ka Bhugol

M.A Previous, Semester VIII
Paper Eighth
(Theory)

Population Geography A110802T

Unit I Nature and Scope of population geography, Relationship with Demography

Historical development of population geography

Sources of population data and their level of reliability

Unit II Population: distribution, density and growth

World patterns and their determinants

Theories of Growth-Malthus, Marx and Demographic transition

Unit III Population Composition: Age & Sex, Rural & Urban, Literacy

Population dynamics: Fertility, mortality and migration

Migration: National and International patterns

Unit IV Site and situation; Evolution of population settlements

Internal morphology of rural and urban settlements

Unit V Concept of population and over population

Population and Development; Population resource regions types and patterns of rural demography

Suggested readings:

1. Chandana, R.C.: A study in Population Geography
2. Ghosh, B.N. Population of Geography
3. Harilal: Jansankhya Bhugol
4. Bhnede and Kantkar: Population studies
5. Hopkinson D. (1989): Geography of Settlement, Oliver and Boyld

M.A Previous, Semester VIII
Paper Ninth
(Theory)

Settlement Geography A 110803 T

Unit I Evolution, Size and growth of human settlement: Theories of evaluation of settlement; size distribution, spatial and temporal trends in size

Unit II Growth and Distribution pattern of settlements, theoretical models and empirical findings

Unit III Theories of Christaller and Losch and their application to settlement hierarchy Factors affecting the hierarchy

Unit IV Central Place Theory; measurement of centrality and hierarchy

Unit V Hierarchy of settlements in India – an empirical exercise

Suggested readings:

1. Ambrose, Peter, Concepts in Geography Vol-1 Settlement Pattern, Longman 1970
2. Baskin, C. (Translator), Central Places in Southern Germany, Prentice-Hall Inc,. Englewood Clifts New Jerscy. 1966. Originally Written by C. W. Cristaller in Germany with title Die Zentralen Orte Suddeutsch landin 1933.
3. Census of India, Houses and Settlement Patterns of Villages in India GOI, New Delhi 1979.

M.A Previous, Semester VIII
Paper Tenth
(Theory)

Agricultural Geography A110804T

Unit I Agricultural Geography: Nature, Scope and Significance
Objective of Agriculture Geography
Sources of Agricultural Data

Unit II Agricultural land Utilization, Land reforms, Land Use policy and Planning
Agricultural Productivity and crop Diversity
Impact and Consequences of Green Revolution

Unit III Von Thunen's Theory of Agricultural Location and its recent modification
Whittlesey's Classification of Agricultural regions

Unit IV Regional Pattern of productivity in India
Problems in Indian Agriculture
Agriculture Policy in India

Unit V Intensity of Cropping and Land Capability in Agriculture
Employment in Agricultural Sector
Environmental Degradation: Role of chemical Fertilizers, insecticides and pesticides

Suggested readings:

1. Bayliss Smith, TP (1987) : The Ecology of Agricultural Systems, Cambridge University Press, London
2. Berry. B..I. el.Al. (1976) : The Geography of Economic Systems, Prentice Hall. New York
3. Brown. I.R (1990) : The Changing World Food Prospects- The Nineties and Beyond. World Watch Institute, Washington D.C
4. Dyson.T. (1996) : Population and Food-Global Trends and Future Prospects. Routledge, London
5. S. Gregor, H.P. 91970) : Geography of Agriculture, Prentice Hall, New York

M.A Previous, Semester VIII
Paper Eleventh
(Practical)

Practical Qualitative technique on socio-economic survey

A110805 P

Unit I

Statistics and statistical data

Sampling: Sample units and design, sampling frame and procedure

Standard error and sampling size

Testing the adequacy of sample: Binomial test

Probability theory and laws

Unit II

Bivariate analysis

Forms of relations and measuring the strength of association and relation

Construction and meaning of the scatter diagram

Spearman's rank size rule

Pearson's product moment co-relation coefficient

Regression analysis, ratio of regression and ration of variation

Unit III

Conduct a socio-economic survey of households with a structured questionnaire: supplement the information by personal observations and perceptions. Based on results, prepare a critical field survey report. Photographs and sketches, in addition to maps and diagrams supplement the report.

A socio- economic field survey camp will be organized for the duration of ten days at any selected site (rural and urban) away from the institution. The camp will be compulsory for all the students

Note: The students have to attempt two questions each from the first two units. The distribution of marks shall be as follows:

1. Four exercises: 40 marks
2. Sessional Work: 15 marks
3. Viva-voce: 15 marks
4. Socio-economic survey report: 30 marks

M.A Previous, Semester VIII
Paper Twelfth
(Research Project)

A 110806 R

As per the guidance of the supervisor (teacher concern) candidate has to complete the research project.

M.A Final, Semester IX
Paper One
(Theory)

Economic Geography A110901T

Unit I Significance, study matter and branches of Economic Geography

Unit II Classification of economic actives, major global economic Regions

Unit III Introduction to theories related to Agriculture. Theory of Von Thunen.

Unit IV Introduction to theories related to Industries. Theories of Weber and Loch, Accessibility and connectivity for transportation.

Unit V In Indian perspective- Green Revolution, White Revolution; Indicators of Economic development; Global Hunger Index and Health Index

Suggested readings:

1. Knowles R., Wareing J., Economic And Social Geography, Rupa Publication
2. SD. Maurya, Economic Geography, Pravalika Publication
3. Hartshorne, T.A, and Alexander J.W., Economic Geography,New Delhi, Prentice Hall

M.A Final, Semester IX
Paper Two
(Theory)

Urban Geography A110902 T

Unit I Urban geography: Nature and scope

Development of urban geography

Attributes of urban places during ancient, medieval and modern periods

Locational and Functional classification of towns

Unit II Bases and process of urbanization and development

Origin and growth of urban settlements

Urban growth and theories; Central place theory of Christaller and Losch

Theories of Perroux and Boudeville

Urban Hierarchy- Rank size rule and primate city

Unit III Urban morphology and land use structure

Theories of Urban land use- Burgess, Hyot, Harris and Ulman

Concept and characteristics of CBD

Conurbation, Urban Agglomeration

Unit IV Concept of city region, Umland and Sphere of Influence Arca

Rural Urban fringe

Concept of Megalopolis and Metropolitan region

Unit V Trends of urbanization in India

Planned and unplanned cities of india

Urban problems with special reference to slums and urban poverty

Urban Planning and Policies in India

Suggested readings:

1. Carter, H. (1972): The Study of Urban Geography. Arnold Hienemann
2. Geddes, P. (1968): Cities in Evolution, Benn Publishers
3. Hall, P. (1992): Urban and Regional Planning. Routledge, London
4. Johnson, I. (1972): Urban Geography: An Introductory Analysis, Germ Area
5. Mayer & Kohn (1959): Readings in Urban Geography. Chicago Arca

M.A Final, Semester IX
Paper Three
(Theory)

Geography of Tourism A110903T

Unit I Tourism: Definition and meaning

Factors Influencing Tourism: Historical, Natural, Socio- Cultural and Economic factors
Elements of Tourism

Unit II Types of Tourism:

Cultural, Historical and Adventure Tourism

Tourism as an Industry

International Tourism

Unit III Evolution of tourism in India

Problems of Tourism in India

Regional Dimensions of Tourist Attractions in India

Unit IV Infrastructural Approach for the Development of Tourism

Motivating Factors for National and International Tourists

Development of Indian Hotel Industry]

Unit V Role of Foreign Capital and Impact of Globalization on Tourism

Environmental Law and Tourism

Government Policies for Planning and Promotion of Tourism in India

Suggested readings:

1. Bhatia A.K (1996): Tourism Development: Principles and Practices. Sterling Publishers, New Delhi
2. Inskeep. E (1991): Tourism Planning: An Integrated and Sustainable Development Approach Van Nostrand and Rienhold, New York
3. Kaul R.K (1985): Dynamics of Tourism and Recreation, Inter- India, New Delhi
4. Kaur, J. (1985): Himalyan Pilgrimages and New Tourism, Himalyan Books, New Delhi
5. Lea, J. (1988): Tourism and development in the third world
6. Milton, D. (1993): Geography of World Tourism, Prentice Hall, New York

M.A Final, Semester IX
Paper Four
(Theory)

Oceanography A110904T

Unit I Nature and scope of Oceanography
History of Oceanography

Unit II Major Features of Ocean basin: Continental margins and deep ocean basins and marine sediments

Unit III Physical and chemical properties of sea water; Interlink between atmospheric circulations and circulation patterns

Unit IV Composition of Oceanic Water; Distribution of temperature and salinity
Surface configuration of the Ocean Floor

Unit V Circulation of ocean water: Waves, Currents and Tides
Theories of Origin of tides
Ocean deposits: their sources and kinds
Coral Reefs: Types and theories of their origin

Suggested readings:

1. Lydolph, P.E : The Climate of the Earth. Rowman 1985
2. Menon, P.A.:Our Weather. N.B.T. New Delhi 1989
3. Peterson, S.: Introduction to Meteorological, Mc Graw Hill Books, London 1969.
4. David Richard, J. A. : "Oceanography – An introduction to the marine Environments" Wm. C. BrownJowa 1986

M.A Final, Semester IX
Paper Fifth
(Practical)

A 110905 P

Practical Advanced Cartography

Unit I Map Projection: Classification, Properties and Choice of Map Projection Construction of Map projections- Mercator' Projection. Gnomonic Polar Zenithal projection, Stereographic polar zenithal projection. Stereographic Equatorial Zenithal Projection, Stereographic/ Zenithal Projection

Unit II Construction of Mollweid's homographic projection, Gall's projection. Interrupted Sanson Flamsteed sinusoidal projection, Orthographic equatorial zenithal projection, Orthographic Polar Zenithal Projection

Unit III Remote sensing and interpretation of aerial photos: Meaning and Scope of Remote Sensing, processes and elements of remote sensing, Advantages of remote sensing, Electromagnetic Energy, Remote sensing platforms. Kinds of remote sensors. Methods of aerial photography. Types of aerials Photography, Stereoscopic and 3-D maps

The candidates shall attempt 3 questions selecting one from each unit with internal choice.
Time: 3 hours.

The distribution of marks shall be as follows:

1. 3 exercises: 60 marks
2. Sessional Work: 20 marks
3. Viva-Voce: 20 marks

M.A Final, Semester X
Paper Sixth
(Theory)

Research Methodology A111001T

Unit I Conceptual Foundation of research
Meanings and types of research, objectives and motivation of research
Concepts of pure and Applied Research
Research problems and research design

Unit II Sampling techniques and Aims of Sampling
Sampling and Sample Design
Sampling types- Random, Stratified and purposive

Unit III Data Collection:
Methods of field observation
Techniques of primary data collection, preparation of questionnaires
Data Collection from secondary sources
Tabulation and data analysis

Unit IV Cartographical Analysis of data
Techniques of data representation by quantitative maps
Hypothesis and procedure for hypothesis testing

Unit V Drafting of research report, quantitative and qualitative interpretations
Organization and designing of report
Evaluating a report

Suggested readings:

1. Mahmood. slam: Statistical Methods for Geographical Studies
2. Koshari. K.C: Research Methodology in Social Sciences
3. Suleman. M.: Research Techniques and Methods in Social Sciences
4. Adhikari, S. : Fundamentals of Geographical Thought, Allahabad
5. Chorley. R. J. & Haggelt, P. (ed.) (1967) Models in Geography, London
6. Hartshorne, R. (1994 Indian print): The Nature of Geography, Rawat publishers
7. Harvey: Explanation in Geography
8. Kaushik. S. D. (2001): BhaugaulikChintanavam Vigyaardhara (Hindi)

M.A Final, Semester X
Paper Seventh
(Theory)

Remote Sensing and GIS A111002T

Unit I Meaning of Remote Sensing
Historical Development of Remote Sensing in Geography
Stages and elements of processes of Remote Sensing

Unit II Interaction of electromagnetic energy with matter
Remote Sensing systems- Radiation, Sensors, Platforms, Solar Energy
Elements, of Photographic System- types, scales, ground coverage. resolution.
areal cameras

Unit III Types of Remote Sensing
Utility of Remote Sensing
Principles and Elements of GIS
Data-Source and Digital Cartography

Unit IV Geography as a Spatial Science
Dynamics of spatial information
Elements of Information Technology

Unit V Basic principles of computer cartography for GIS and GPS
Applications of remote sensing and GIS in Urban and
Disaster Management

Suggested Readings:

1. Avery. T. E. (1962) : Interpretation of aerial photograph, Minneapolis
2. Dury. G. M. (1952) : Map Interpretation
3. Cunan. R. J. (1985) : Principles of Remote Sensing
4. Lillesand. T. M. & Kiefer. R. W. (1979) : Remote Sensing and Image Interpretation. NewYork
5. Sabins, F. F. (1997) : Remote Sensing and Interpretation, New York
6. Campbell, J. B.: Introduction to Remote Sensing, London Fraser Taylor, D. R. (1991) : Geographical Information System. London
7. Siddiqui: An Introduction to GIS
8. Devidan Chaunyal:Sudoor Samvednam Bhaugolik Chinta Pranali

M.A Final, Semester X
Paper Eighth
(Theory)

Geography of Resources A111003T

Unit I Concept of Resources, Classification of Resources, Prineiple of Resources: Adequacy and Scarcity.

Unit II Resources and Development, Imbalance in Resources Distribution and Utilization, Globalization and Resources

Unit III Problems and prospects of Soil, water, Forests Resources, Mineral & Power Resources, and Resource depletion

Unit IV Emerging Issues – Desertification, Deforestation, Loss of Biodiversity, Energy crisis, and Resource conservation

Unit V Strategies and Planning of Resources with special reference to Soil, water and Forest. Population Resource Region

Suggested Readings:

1. Zimmermann, E. W. (1966) : Introduction to World Resources, Harper & Row, New York
2. Smith, GH. (ed.) (2000) : Conservation of Natural Resources, John Wiley, New York
3. Kellog. CF. (1986) : Food, Soil and People. The Manhattan Publishing Co. New York
4. Simmans, LG. (1981) : The Ecology of Natural Resources,Edward Arnold, London
5. Smith. J.R. (1987) : Industrial and Commercial Geography, London
6. United Nations (2007) : Human Development Report, Oxford, UNDP
7. Singh, Jagdish (1998) : Sansadhan Bhoogol, Cyanodaya Prakashan. Gorakhpur

M.A Final, Semester X
Paper Ninth
(Theory)

Applied Geography A111004T

Unit I **Geographical Knowledge and Applied Geography**
Meaning of geography, application of geographical knowledge in ancient times, application of geographical knowledge in ancient India, development of geographical knowledge in the modern period, fundamentals of applied geography, relation of applied geography with major social sciences.

Unit II **Techniques and Tools in Applied Geography**
Techniques and tools used in applied geography, techniques and tools for the measurement of geographical facts: travel, survey, photography, geographical use of aerial photos, remote sensing.

Unit III **Applied Geomorphology**
Application of geomorphology, geomorphological survey and mapping, practical use of geomorphology in settlement geography, practical use in transport geography and population geography

Unit IV **Applied Climatology and Oceanography**
Practical application of climatology practical application of climatology in hydrology, practical application of climatology in botany, practical use of climate in soil science, practical use of climate science in animal husbandry, practical use of climate science in agriculture, Oceanography

Unit V **Human Geography and Applied Geography**
Practical application of human habitat, application of applied geography in industrial geography, problems arising out of unequal distribution of human resources, protecting human resources.

Suggested Readings:

1. Herbertson A.J. 1898. Report on the teaching of applied geography. Journal of Manchester Geographical Society, 14:264-85
2. Programme Congress Session in Stockholm 6-13 Aug 1960. 19 International Congress
3. Nordan 1960, Section-Applied Geography, pp 40,47,75,85.
4. Ayyar, NP. 1966. Photogrammetry, photo-interpretation and the Indian Geography,Applied
5. Geography, Proceedings of the Summer School, Department of Geography, BHU, pp.
6. Singh, RP, 1966. Geomorphological Mapping, Applied Geography, Proceedings of the Summer Sohovl, Department of Geography, BHU

M.A Final, Semester X
Paper Tenth
(Practical)

Practical Advanced surveying and field survey tour

A111005 P

Unit I Surveying. An introduction: Definition, principles of surveying, types of surveying, chain and tape survey; Calculation of width of river, Plane table Survey: Inter-section, Re-section, 3-point problem, 2-point problem (inside and outside case), Prismatic compass surveying, Telescopic Alidade. Distance and Height Calculation

Unit II Theodolite- Least Count, Angle Measurement and Plotting, Dumpy Level Sextant- measuring the angles, Indian Clinometer:
Height Calculation

Unit III Geographical tour is to be organized for a period of about 10 days in a selected area at least 100 km away from the institution. The students shall conduct a field survey pertaining to physical features, local flora and local fauna, Settlement Structure and lifestyle of people on the basis of the observations; On the basis of the observations, the students shall prepare a field report supplemented with maps, sketches and photographs

Time: 4 hours

Distribution of marks shall be as follows:

Field Work (one exercise from each unit): 40 marks

Field Survey Report: 30 marks

Sessional Report: 15 marks

Viva-voce: 15 marks

M.A Final, Semester X
Paper Eleventh
(Research Project)

A 1111006 R

As per the guidance of the supervisor (teacher concern) candidate has to complete the research project.