एम.ए. पूर्व भूगोल में चार सैद्धांतिक एवं एक प्रायोगिक प्रश्नपत्र होंगे। प्रत्येक प्रश्नपत्र 100 अंक के होंगे एवं न्यूनतम उत्तीर्णांक 36 प्रतिशत होगा।

समूह	प्रश्नपत्र	प्रश्नपत्र का नाम	पूर्णांक
अनिवार्य	I	**Geomorphology**	100
अनिवार्य	II	**Economic Geography**	100
अनिवार्य	III	**Geography Of India**	100
अनिवार्य	IV	**History Of Geographical Thought**	100
अनिवार्य	V	**Practical**	100

PAPER- I
GEOMORPHOLOGY

M.M. 100

OBJECTIVE

- It being a course at the interface of Geography with earth, the student has to be sensitized to the background knowledge of geology and environmental sciences.

- The objectives of the course is one to familiarize the students with the need for understanding of geomorphology with reference to set and fundamental concepts, focusing on the unity of geomorphology in the earth materials and the process with or without an element of time process component of geomorphology is segmented into the internal and external processes of landscape evolution.
- Finally, a few selected applications of geomorphology to societal requirements and quality of environment are dealt with.

COURSE CONTENTS:

UNIT- I

Nature and scope of geomorphology
Fundamental concepts- Geological structures and landforms, multi cyclic and polar Genetics evolution of landscapes, concepts of threshold environmental change climatic change and geo chronological methods documentary evidence

UNIT- II

Earth movements
Epeirogenic organic and cymatogenic earth movements, forces of crustal instability isostasy plate tectonics vulcanicity organic structures with reference to the evolution of the Himalaya.

UNIT- III

Exogenic processes
Concepts of graduation, agents and processes of graduation, causes, types and classification of weathering, mass movement emotional and depositional processes and resultant landforms and soil formation slope.

UNIT- IV

Geomorphic processes
Dynamics of fluvial glacial aeolian marine and karst processes and resulting landforms, erosion surface techniques of identification and correlation.

UNIT- V

Applied geomorphology
Application of geomorphic mapping terrain evaluation DEM and tin and capability and land suitability classification, hydro geomorphology urban geomorphology, environmental geomorphology, geomorphic hazards

PAPER- II
ECONOMIC GEOGRAPHY

M.M. 100

OBJECTIVE

The economy of the world is changing in recent times the changes in Primary secondary and tertiary stages in dynamic in nature in view of this the objectives of the scores are to integrate the various factor of economic development to acquaint the student about dynamic aspects of economic geography.

COURSE CONTENTS:

UNIT- I

Scope content and recent trends in economic Geography-
Relation of economic Geography with economics and other branches of Social Sciences classification of economic sectors of economy primary secondary tertiary location of economic activities

UNIT- II

Factors of location of economic activities-
Physical social economic and cultural, principles governing exploitation of minerals, world distribution and production of iron ore, Magnus, copper, 3, zinc, bauxite, coal and petroleum.

UNIT- III

Manufacturing of industries-
Resources based and foot loose Industries, theories of industrial location Weber losch and Iscard location and distribution of selected Industries iron and steel, aluminum, chemical, oil refining and petrochemical engineering, textile etc.

UNIT- IV

Transport and Trade-
Factors governing loud oceanic and air transport, accessibility and connectivity, major International Railways and ocean accrued trade laws World Trade patterns.

UNIT-V

Economic development of India-
Regional disparities, impact of Green revolution on Indian economy, Industrial Development during plan period globalisation and Indian economy and its impact on environment.

PAPER- III
GEOGRAPHY OF INDIA

M.M. 100

UNIT- I
India in the context of Asia in the world-
Land, major Taran units and their characteristics, drainage system, the Indian monsoon, regional and seasonal variation of weather, climatic division, soil types and their characteristics, distribution problems, forest resources and their conservation.

UNIT- II
Mineral and power resources reserves-
Production and problems of conservation of major minerals, population numbers, distribution with special reference to post independence period and its implications, literacy and education, special urbanization and characteristics of Indian cities

UNIT- III
Economy-
An overview of Indian economy and impact of globalisation on 8 cultivated land use pattern, characteristics and problems of agriculture comma irrigation development of spatial pattern, technological development in agriculture green revolution and its consequences for agricultural regionalization of India.

UNIT- IV
Industry-
industrial development and overview, locational factors and spatial pattern of major industries in India Iron and Steel, Engineering goods, Textiles, Chemicals, cement, sugar and paper industrial regions of India Transport and trade International and internal trade of India composition and change.

UNIT- V
Regions of India-
Basic of regional division, macro and micro regional divisions of India by O H K spat end RL Singh detailed study of Stern, UP Narmada basin, Malwa Plateau, Chhattisgarh basin and Marusthali

PAPER- IV
HISTORY OF GEOGRAPHICAL THOUGHT

M.M. 100

OBJECTIVE

- To introduce the students to the philosophical and methodological foundations of the subject and its places in the world of knowledge
- Too familiar rise them with the major landmarks in development of Geographic thought at different period of time course content

UNIT- I

The field of geography-

Its places in the classification of Sciences, geography as a social science, and natural science, selected concept in the philosophy of Geography, distribution, relationships, interactions, areal differentiation and spatial organisation.

UNIT- II

Historical development

Contributions of different Scholars during ancient mediaeval and modern period, dualism in geography systematic and regional Geography, physical and human Geography, systematic geography and its relation with systematic science and with regional Geography, the myth and reality about dualism

UNIT- III

Regional geography

Concept of region, regionalization and the regional method, scientific explanation, routes to scientific explanation inductive deductive types of explanation, co-native description, cause's and effect comma temporal functional / ecological system.

UNIT- IV

Laws, theories and models:

The quantitative Revolution, responses to positivism, behaviorism postmodernism

Unit-V

Geography in the 20th century

Conceptual and methodological developments and changing paradigm status of Indian geography, future of geography, as I had relating to development of Geographic thought with special reference to changing views of man environment relationship

PAPER- V
PRACTICAL

ADVANCED CARTOGRAPHY
OR
FIELD WORK - INSTRUMENTAL SURVEY
OR
ADVANCED CARTOGRAPHY & SURVEYING

PAPER- V
PRACTICAL
ADVANCED CARTOGRAPHY

Practical - I **M.M. 100**

Objectives:-

* To appraise the student with latest trends in the development of cartography as a tool in mapping thematic and quantitative data to facilitate spatial analysis and synthesis.
* To provide training in application of modern tools and techniques to data in a variety ot topical and regional studies at local, regional and national levels.
* To attempt regional synthesis by the use of cartographic and quantitative techniques.

Distribution of Marks

1.	Practical Record	-	20
2.	Lab Work	-	70
3.	Viva Voce	-	10
Total		**-**	**100**

Course Contents:-

Unit - I Introduction Trends in the development of cartographic techniques for descriptive, analytical and prescriptive aspects in the use of maps.

Unit - II Thematic Cartography - Physical:

1. Assessment of land quality by using different attribute in the evolution of land forms and measuring their association and spatial differentiation.

1. Following exercise may be taken for the prescribed syllabus.
   - A Relief Profiles - Serial Profile, Superimposed Profile, Projected Profile Composite Profile, Hypsometric curve.
   - B. Slope Analysis - Went worth Method, Smithies slope Method.
   - C. Drainage - Longitudinal Profile.

   Land based resources and use Land use - Preparation of maps based on Agricultural land use and urban land use.

Unit - III Thematic cartography - Socio-economic: Data sources and techniques of analysis of socio-economic data through the preparation of single purpose and composite maps.

The Following exercise may be taken for the prescribed syllabus.

Population Agricultural Production. Industrial production, Forest Production Minisy data may be taken for following.

Inbullcual maps -

1. Dot Map
2. Isopleths map
3. Coropleth map
4. Chorocromatic map

Unit-IV Creation of spatial database and application using GIS Remote sensing and Computer cartography in geographical studies.

The Following theoretical / Practical exercise may be taken from prescribed syllabus created and analysis and database use of multi spectral sensors GIS and map analysis, coding decoding techniques Preparation of one dimensional, two dimensional & multi dimensional maps.

Unit - V Regional Synthesis and characterization of the observed spatial patterns for predictive purpose. Preparation of spatial models cartography for environs mental education of planning.

The following theoretical / Practical exercise may be taken for Prescribed Syllabus.

Satellite image analysis for applied purpose.

1. Remote sensing for land forms analysis
2. Environmental analysis
3. Forest and cropped area analysis
4. Land use analysis

Suggested Reading -

1. Americal Society of Photogrammetry, manual of Remote Sensing ASP, Falls Church V.A. 1983.
2. Aronoff S. Geographi Information Systements A management prespective DDL Publication Ottawa 1989.
3. Barretl E.C. and L.F. Curts Fundamentals of Remote Sensing and Air Photo interpretation JMomilan New York 1992.
4. Burrough P.A. Principles of Geographic information System for Land Resource Assessment Oxford University Press New York 1986.
5. Campbell J. Introduction to Remote Sensing Guilford New York 1989.
6. Curran Paul J. principles of Remote Sensing Longman London 1985.
7. David Unwin Introductory Spatial analysis Methuen London 1981.
8. Fraser Taylor D. R. Geographic information System pergaman press Oxford 1991.
9. Gregory S. Statistical Method and the Gorgrapher Longman London 1978.
10. Hammond R. and R.S. McCullagh Quantitative Techniques in Geography; An Introduction Clarendan Press Oxford 1974.
11. Hord R.M. Digital Image Processing of Remotely Sensed Data Academics New York 1989.
12. John P.Cole and Cuchlaine A.M. King Quantitative Geography John Wiley London 1973.
13. Johnston R. J. Multitivariate Statistical Analysis in Goegraphy Longman London 1973.
14. Luder D. Aerial Photography Interpretation Principles and Application McGraw Hill, New York 1959.
15. Maqurire D.J. Multivariate Stastical Analysis in Geography Longman london 1973.

16. Mark S. Monmonier Monmonier Computer - assisted Cartography Prentice Hall, Englewood Cliff, New Jersey 1982.
17. Peuquet D. J. and D.f. Marble Intdocuctory Reading in Geographic information Systems. Taylor & Francis, Washingtom 1990.
18. Pratt. W.K. Digital Image processing Wiley New York 1978.
19. Rao D. P. (eds) Remote Sensing for Earthh Resources Association of Exloration Geographisys Hydrabd 1998.
20. Star J. and Estes Geographic Information Systems An Introduction Prentice Hall Engile Wood Ciff New Jersey 1994.
21. Yeats Maurlce An Intdocution to Quantitative Analysis is Human Geography McGraw Hill, New York 1974.

Pedagogy -

* the students need to be trained in the use of conventional vis-avis modern tools and techniques of cartographi analysis to generate spatial pattern and associations and attempt a geographical interpretation.
* They should be encourage to create spatial database for their local areas based on satelite imageries and remote sensing techniques and other kinds of maps.

Paper-V
Practical
Field Work - Instrumental Survey

Practical - II M.M. 100

Objective:-

To familiarize how topographic cadastral maps of plans of any area are prepared to enhance the skill of the students in the field of survey for revenue purpose and understand the principles of map making.

Distribution of Marks

1.	Practical Records	20
2.	Survey	70
3.	Viva-Voce	10
Total		100

Course Contents:-

Unit - I Importance of fields instrument survey - scope and purpose principle and application of selected survey instruments.

Unit - II Plane table plan preparation, resection - one point and two point problem three point problem tracing paper methods.

Unit - III Dumpy level: traverse survey contour plan preparation.

Unit - IV Theodolite - horizontal and vertical (height) measures accessible and inaccessible methods.

Unit - V other smaller instrument Indian clinometers height measurement survey of a selected area preational base map by the use of surveying instrument.

Suggested Reading -

1. Clendinging J. Principles and use of Surveying Instrument 2nd edition Block A 1958.
2. Cleandinning J. Principles of surveying 2nd edition 1980.
3. Hotine Major M. The re trainguation of Great Britiain, Empire survey revew 1935.
4. Mitra R. P. and Ramesh A. Fundamentals of Cartography Revised Edition Concept Publication, New Delhi.
5. Monkhouse - Maps and diagrams methuen 1971.
6. negi, Balbir Singh, Practical Geography Third revised ed. Kedar nath and Ram Nath Meerut & Delhi, 1994-95.
7. Sandover J.A. Plane Surveying Arnold 1961.
8. Singh & Karanjta-Map work and Practical Geography Central Book Dept Allahabad 1972.
9. Singh R. L. and Dutt P.K. Elements of Practical Geography Students friends Allahabad 1968.

Pedagogy:

* Village / Local area to be surveyed and other buildings in the university plans to be prepared for the geography department.

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Paper-V
Practical
Advanced Cartography and Surveying

Practical M.M. 100

Unit - I Graphs and Diagrams Marks - 15
Triangular graph, logarithimic and semi ligarthimic graphs climatograph, Proportional eircles spheres and cubes potxiater byramid.

Unit - II Thematic Maps Marks -15
Choropleth maps Isolines Flow maps Isochrones and class saveral

Unit - III Mosphometric Analysis Marks - 15
Profits Slope analysis Altimetric and clinographic curves Block diagrams.

Unit - IV Analysis of Geographical Pattern and Geological Maps. Marks - 15
Lorenz curve, Generalization of Pout, Patterns crop carbonation Trend Analysis Nearest neighbor Analysis.
Study Geological maps for horizontal filled, toided fauled unconformble and intruded structures.

Unit - V Surveying Marks - 15
Principles and method of topographical surveying involving use of Theodlite and Dumpy Level Solution of Problems in Surveying

Practical Record	-	20
Viva on above	-	05