SYLLABUS

THREE YEAR DEGREE COURSE GEOGRAPHY HONOURS & SUBSIDIARY FIRST YEAR HONOURS COURSE (200 MARKS)

B.A. - I (Honours)

Paper – I Physical Geography

75 Marks

The course has been divided into five units. There shall be ten questions of which two questions shall be set from each unit. The examinees shall be required to answer five questions, selecting *one* from each unit. The examination shall be of three hours duration and shall carry 75 marks.

UNIT - 1:-

Nature and scope of Physical Geography; Interrelation of Physical Geography with other branches of Earth Sciences; Origin of the Solar system, Geological timescale; Rocks-Origin and Classification of Rocks, the Rock cycle..

UNIT - 2:-

Origin & classification of Earth movements; Landforms; Volcanoes & Earth quakes; Theory of Isostasy; Wegener's views on Continental Drift; Mountain-building Theories of Kober and Holmes; Plate Tectonics.

UNIT - 3:-

Geomorphic Processes: Agents of Denudation and Weathering; Mass wasting and Landslides; Fluvial, Wind, Glacial, and Karst topography; Normal Cycle of Erosion; Drainage system- its development, patterns and classification.

UNIT - 4:-

Composition and Structure of the Atmosphere; Global Energy Budget; Atmospheric Pressure and Circulations; Winds and its types, Hadley's tri-cellular theory, Monsoons and Jet streams, Land and sea breeze, local winds; Humidity & Precipitation, clouds; Air Masses and Fronts; Cyclones and Anticyclones; Thornthwaite's classification of climate.

UNIT - 5:-

Relevance of Oceanography; Ocean floor configurations: Continental Shelf,Slope, and Deeps; Bottom Relief of the Indian and Atlantic Ocean; Temperature; Salinity; Waves, Tides and Ocean currents; Tsunamis; Ocean Deposits; Coral reefs; Coastal Environment, Ocean as a storehouse of future resource.

Books recommended:-

- P. Dayal Physical Geography.
- E. Ahmed Physical Geography.
- SavindraSingh Physical Geography.
- C. B. Mamoria- Physical Geography.
- D. S . Lal Climatology.
- D. S. Lal Oceanography.
- Sharma and Vatal Oceanography for Geographers
- Critchfield General Climatology.
- Khullar Physical Geography

Paper - II (A) Asia: Regional Study

75 Marks

The course has been divided into five units. There shall be ten questions of which twoquestions shall be set from each unit. The examinees shall be required toanswer five questions, selecting one from each unitunder Section A and Section B. The examination shall be of three hours duration and shall carry 75 marks.

SECTION A

UNIT-1:-

Asia- Physiography; Structure; Climate; and Natural Vegetation; Soil; Geographical importance of Asia.

UNIT-2:-

Asia - Agro-climatic regions; Mineral and power resources; Population and its problems.

SECTION B

UNIT - 3 :-

China - Physical regions; Agriculture; Mineral resources; Industrial development and major industries: Iron and Steel, Petrochemical and Consumer industries; Population growth and distribution; Urbanization.

UNIT - 4:-

Japan – Physical regions; Agriculture and Fisheries; Industrial development and Industrial Regions, Population growth and distribution; Urbanization.

UNIT - 5:-

Geographical account of Nepal, Bangladesh, Pakistan, Sri-Lanka, Bhutan, Myanmar.

Books Recommended:-

- George B. Cressey Asia: Land &it's People
- C. B. Mamoria Asia
- C. S. Ghor An Advanced Geography of Asia
- S. D. Maurya Asia Ka Bhugol
- Ranjit Tirtha Geography of Asia
- B. C. Jat Asia ka Bhugol
- Dr. PremlalTamta Asia ka PradeshikBhugol
- Dr. Rajendra Kumar Singh Asia ka PradeshikBhugol
- Devendra Prasad Singh Asia ka AdhunikBhugol

Paper :- 1 (B) & 2 (B) Practical

50 Marks

The course has been divided into four units. There shall be four questions, one from each unit and the examinees shall be required to answer all questions. The examination shall be of three hours duration and shall carry 50 marks.

UNIT - 1:-

Enlargement and reduction of maps; Cartograms: Simple, Multiple & Compound Bar diagrams; Pie Diagram; Line graph; Polygraph; Band Graph.

15 Marks

UNIT - 2: -

Interpretation of Topographical maps and Weather maps.

10 Marks.

UNIT - 3: -

Map Projections: Definition, Classification and their merits; Zenithal Equidistant and Equal Area Projections; Simple Conical Projections with one standard, and with two standard parallels.

15 Marks.

UNIT-4: -

Record of Practical work and Viva voce.

10 Marks.

Books Recommended:-

- Singh and Kanaujia Elements of Practical Geography
- J. P. Sharma PrayogikBhugol
- R. L. Singh Elements of Practical Geography
- Khullar Practical Geography
- Md. Ishtiaque PrayogikBhugol

B.A. - II (Honours)

Paper - III (A)

India and Bihar: Regional Study

75 Marks

The course has been divided into five units. There shall be ten questions of whichtwo questions shall be set from each unit. The examinees shall be required to answer five questions, one from each unit. The examination shall be of three hours duration and shall carry 75 marks.

INDIA

UNIT -1:-

Structure; Physiography; Climate; Origin and Mechanism of IndianMonsoon; Natural Vegetation.

UNIT- 2:-

Agriculture: Majorcrops; Irrigation; Characteristics of Indian agriculture; Green revolution; Organic farming in India; Problems of Indian agriculture.

UNIT- 3:-

Industries: History of Industrial Development; Power resources; Factorsfor Localization of industries; Study of following Industries — Iron and Steel, Cotton Textile, Sugar, Cement, Engineering Industries, Fertilizers and Petrochemical industry.

UNIT-4: -

Population: Growth, Distribution, Population problems and polices; types Rural and Urban Settlements; Urban growth; and problems of Urbanization.

UNIT - 5:-

<u>BIHAR</u>: Structure and Relief; Climate; Soil Problems; Major river valley projects; Agricultural regions; Changing land use patterns; Industrial regions of Bihar; Population, Migration and urbanization in Bihar.

Book recommended:-

- Singh, R.L. India: A Regional Geography.
- Dutt A. India.
- Ahmad, E.
 Bihar: A Physical, Regional and Economic Geography.
- Gopal Singh Geography of India.
- P. Dayal Bharat Ka Bhautik Evam ArthikBhugol.
- U. Singh Bharat ka NavinArthikBhugol.
- Singh and Kumar A Monograph of Bihar.
- Mamoria Bharat ka BrihadBhugol (Hindi).
 Tiwari, R.C. AdvancedGeography of India.
- AlkaGautam. Bharat ka Bhugol .

Paper - IV (A) **Economic and Resource Geography**

75 Marks

The course has been divided into five units. There shall be ten questions of whichtwoquestions shall be set from each unit. The examinees shall be required toanswer five questions, selecting one from each unitunder Section A and Section B.The examination shall be of three hours duration and shall carry 75 marks.

SECTION A ECONOMIC GEOGRAPHY

UNIT-1:-

Agriculture: Subsistence, Commercial Grain, Plantation, Dairy and Mediterranean farming; Major agricultural region of the world; Von Thunen's Agricultural Location Theory.

UNIT-2:-

Industry:Locational factors of Industries, Weber's industrial and, Iron and steel, Cotton textileSugar; Major Industrial regions of the world.

UNIT-3:-

International trade in Wheat, Cotton, Iron ore and petroleum; Trade routes of North Atlantic, Suez and Panama canals.

SECTION B RESOURCE GEOGRAPHY

UNIT-4:-

Concept of Resources, Soil, Water and forest resources, their distribution, utilization and conservation. Fisheries of the world; Ecology andecosystems Renewable non-renewable energy resources.

UNIT- 5:-

Mineral and Power resources: Coal, petroleum, iron ore, bauxite, manganese and copper; their distribution utilization and conservation; Non-conventional sources of energy.

Book recommended:-

James and Darkenwald

- Economic Geography.

Zimmerman

- World resources and Industries.

Alexander

- Economic Geograpy.

Kashi Nath Singh

- ArthikBhugol (Hindi)

Guha and Chattoraj

- Economic Geography: A study of resources.

- Resource Geography(English).

Negi Kaushik& Sharma

- SansadhanBhugol (Hindi)

Mamoria

- ArthikBhugol (Hindi).

Haggett

- Geography: A modern Synthesis.

Paper :- III (B) &IV (B) Practical

50 Marks

The course has been divided into four units. There shall be four questions one fromeach unit and the examinees shall be required to answer all questions. The examination shall be of three hours duration and shall carry 50 marks.

Unit—1:-

Cartograms- SphericalDiagrams, Climograph, Hythergraph, Windrose,Isopleths and Choropleth. Age and Sex Pyramid.

15 Marks

Unit— 2:-

Projections- Cylindrical Equal Area and Equidistant, Mercator's Projections. 15 Marks

Unit -3:

Simple Statistics— correlation(person and methods)and Regression analysis. 10 marks.

Unit- 4:-

Record of Practical work including field trip and Viva voce.

10 marks.

Books Recommended: -

• Singh and Kanaujia

Jag dish Singh & Other

Monkhouse & Wilkinson

Raiszand Henry

-Practical Geography.

-PrayogikBhugol (Hindi).

- Mapsand Diagrams.

-Priniciples of Cartography.

B.A. - III (Honours)

Paper – V Geographical Thought and Three Southern Continents

100 Marks

The course has been divided into five units. There shall be ten questions of whichtwoquestions shall be set from each unit. The examinees shall be required toanswer five questions, selecting one from each unitunder Section A and Section B.The examination shall be of three hours duration and shall carry 100 marks.

Section A

UNIT-1:-.

Definition of Geography and its relation with other sciences; Contributionsof Hettner, Humboldt, Ritter, Ratzel, Vidal de la Blache, and Mackinder; Contributions of Prof.PDayalProf.RP. Singh and Prof. EnayatAhmad.

UNIT-2:-

Determinism vs. Possibilism; Neodeterminism; Dualism in Geography, Physical vs. Human, Regional vs. systematic; Quantitative Revolution in geography.

SectionB

UNIT- 3:-

Structure, Physiography, Climate and Vegetation of Africa, Australia and South America.

UNIT- 4:-

Geographical account of selected regions, viz. Nile Basin, MurrayDarling Basin, New South Wales, Argentina- Pampas, Brazil.

UNIT-5:-

Comparative study of Africa, Australia and South America.

Book recommended:-

Hartshorne - Nature of Geography.

R. Minshull
 Freeman
 Changing Nature of Geography.
 A Hundred Years of Geography.

• PrestonE. James - All Possible Words.

• Wooldridge - Geography in 20th Century.

• Taylor - Geography in 20th Century.

SD Kaushik -BhaugolikBicharDharayan and Bidhi
 Herbertson - Tantra(Hindi)Three Southern continents.

• J agdish Singh -Bhaugolik Chintan ka Muladhar

Majid Hussain -Bhaugolik Chintan

• Chaturbhuj Mamoria - Three southern continents(English&Hindi)

Paper - VI HUMAN GEOGRAPHY

100 Marks

The course has been divided into five units. There shall be ten questions of whichtwoquestions shall be set from each unit. The examinees shall be required toanswer five questions, selecting one from each unitunder Section A and Section B.The examination shall be of three hours duration and shall carry 100 marks.

SECTION A

UNIT—1:-

Environmental control of human activity; Human activities in mountainenvironment, Hot and cold Deserts environment, Equatorial areas, Monsoonlands and Temperate grasslands.

UNIT— 2:-

Patterns of population distribution; Trends of population growth; Demographic Transition and Optimum Population; factors of populationmobility-internal and international, rural and urban.

UNIT- 3:-

Evolution of human civilization study of the following races— Oraon, Bushmen, Polynesian, Eskimo; Major Cultural Regions of the World.

SECTION B

UNIT- 4:-

Evolution of Rural settlements; types and patterns of rural settlements in India; Locational and Functional classifications of towns; Urban growth inIndia; Problems of Urbanization, with special reference to India.

UNIT-5:-

Concept and approaches of Environmental Geography; Ecology and Ecosystem; Environmental Policies and Management — Air and WaterPollution.

Book recommended:-

- Robinson Human GeographyEmery Jones Human Geography.
- Huntington -Principles of Human Geography.
- Z. Ahmad Bihar ki Jan Jatiya (Hindi)
- S.D. Kaushik. Manav Bhugolke Siddhant
 Chandna. Geography of Population

Elective Paper - VII

100 marks

This paper consists of several optional groups. Candidates are required to selectany one of the following groups. Each group carries 100 marks.

GROUP(A)

POPULATION GEOGRAPHY

Time:3 Hours Full Marks:100

The course has been divided into five units. There shall be ten questions of whichtwo questions shall be required to answer five questions. The examination shall beof three hours duration and shall carry 100 marks.

UNIT-1: -

Meaning, scope of population geography, Science of Demography, Recentgrowth with special reference to developed andtrends of Populationdeveloping countries, Sources of Population data, Methods of Populationforecasting.

UNIT-2: -

Dynamics of population change- fertility, Mortality, National and International migration, Demographic transition and optimum population.

UNIT -3:-

Distribution and growth patterns of world population problems caused by differential population policy in India.

UNIT-4:-

Population composition —Occupation, literacy, age and sex, Rural urban composition.

UNIT-5:-

Growth of India's Population distribution and density, Rural — urban movement of population, problems of urbanization, urban-Populationcharacteristic in India.

Book recommended:-

- Geography of Population
 Population studies
 Population Geography
 JansankhyaBhugol (Hindi)
 Population Geography
 Geography of Population
 Geography of Population

 R.C.Chandna.
 A.P.C.S. Swain
 Md. I. Hasan
 S.D. Maurya
 Clarks
 B.Garnier
- A Geography of Population:
 - Worlds patterns G.Trewartha

Indian's population problems - Agarwal

GROUP (B) GEOLOGY OF INDIA

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be ten questions of whichtwo questions shall be set from each unit; the examinees shall be required to answer five questions. The examination shall be of three shall be set from each unit. The examinees shall be required to

answer five questions. The examinationshall be of three hours duration and shall carry 100 marks.

UNIT - 1:-

Scope and function of Geology, Standard Stratigraphical scale IndianStratigraphical Scale. Chronological history of Indian Stratigraphy.

UNIT - 2:-

Minerals— Classification, mode of occurrence and distribution of Iron,copper, mica, manganese, coal petroleum, atomic minerals.

UNIT -3

Petrological characteristics, Classification distribution and economicimportance of Dharwar, Vindhyan, Gondwana Deccan, Lava and Tertiarysystems, cudappa.

UNIT- 4:-

Classification of rooks- Igneous, sedimentary, metamorphic rocks, metamorphism.

UNIT -5:-

Geological Evolution of Himalayas. Chotanagpur, RajmahalHighland,DeccanLava, Aravali.

Book recommended:-

A Text book of Geology
 Geology of India
 Geology of India and Warma
 Bhart ka Bhuvagyanicprichay (Hindi) – D.P. Singh

Physical Geology - A.K. Datta

GROUP (C) LAND USE AND AGRICULTURE

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be the questions of whichtwo questions shall be set from each unit. The examinees shall be required to answer five questions. The examination shall be ofthree hours duration and shall carry 100 marks.

UNIT-1:-

Meaning and scope of land use and agricultural geography. History of land use Land use survey of England, World Land use Survey Pattern of Land Use in India.

UNIT-2:-

Factors of Land use: Physical and cultural. Land capability, classification Population and land resource requirements.

UNIT- 3:-

Origin and History of agriculture, Diffusion of commercial grainfarming. Plantation: Irrigation and Fertilizers.

UNIT-4:-

Types of farming- Subsistence farming, commercial grain farmingplantation agriculture, Dairy farming.

UNIT- 5:-

Development of agriculture in India. Crop- combination in India. Agricultura regions of India. Agricultural planning in India. Agriculture and food supply in India.

Book recommended:-

• L.D. Stamp - Land of Britain: Its use and misuse

• L.D.Stamp -Applied Geography

Symons -Agriculture Geography

Majid Husain -Agriculture Geography

• B.B. Singh - Krishi Bhugol(Hindi)

• B.S. Negi -Natural Resources

GROUP (D) CARTOGRAPHY AND MAP MAKING

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be the questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions. The Examination shall be of three hours duration and shallcarry 100 marks.

UNIT-1:-

Definition of astronomical terms and their relations.

UNIT - 2:-

Determination of latitude with the help of meridian altitudeand solar time, sidereal time, equation of time.

UNIT-3:-

Principles and nature of map projections. Mathematical construction. Properties and use of the following map projections (but not co-ordinates), Zenithal-equal, area following map projections (but not co-ordinates), Zenithal-equal area Gnomonic, conical, simple conical projection with onestandard parallel Bonne's projection, constant of cone. Cylindrical—equal area and Mercator's.

UNIT-4:-

Acquaintance with Theodolite, Sextant, principle of determination of shapeand size of the earth, Scale and their types- scale of sphere and cube, scale orcircle and square, Venire scale, Logarithmic scale.

UNIT-5:-

Mechanism for the construction of maps and Atlas. Symbols. Format ofmap. Survey of India map, Modern techniques of map making, Photogrammetry and interpretation of areal photograph.

Book recommended:-

Jameson and Ormsby - Mathematical Geography Vol. i and ii

R.P. Mishra - Fundaments of Carotography

Kanetkar - Surveying

R.L.Singh - Fundaments of Practical Geography

PrayogicBhugol - J.P.Sharma

GROUP (E) POLITICAL GEOGRAPHY

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be the questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions. The examination shall be of three hours duration and shallcarry 100 marks.

UNIT -1:-

Meaning and Scope of Political Geography. Contributions of Ratzel, Haushofer, Mackinder, Mahan and Spikeman.

UNIT-2:-

Concept of state and nation, Location, shape and size of the state. Capitaland core areas, Population growth and Size. Language and religion.

UNIT-3:-

Distinction between frontiers and boundaries. Evolution of boundaries, Function of boundaries. Delimitation of the territorial water and problems involved. Right to passage across straits and narrow areas.

UNIT - 4:-

Federation, Unitary system. Power Blocks, Economic Grouping, PoliticalGroupings.

UNIT - 5:-

Tension in the Middle East, South Africa, India's boundary problem Political Geography of the Indian Ocean. National Integration in India.

Book recommended:-

R.D. Dixit - Political Geography
 S. Adhikari - Political Geography
 Pounds N.J. - Political Geography

Weighrt - Principles of Political Geography
 Pearcy - World Political Geography

• Srivastava - RajnaitikBhugol

GROUP (F) REGIONAL PLANNING

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be the questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions. The examination shall be of three hours duration and shall carry 100 marks.

UNIT - 1:-

Definition, Scope and content of regional planning, Methods and Techniqueused in regional surveys, Census and sample surveys.

UNIT - 2:-

Planning in India, Regional imbalances and inequalities in India. five yearsplans, Multi-level planning in India.

UNIT-3:-

Regional Planning in Agriculture, community development projects, Green Revolution, Integrated rural development program.

UNIT-4:-

Regional Pattern of industrial development in India, Factors of industriallocation. Rural industrialization, Service industries.

UNIT - 5:-

Urbanization in India, Central places and growth poles city region. Conceptand methods of delimitation, Metropolitan planning and development.

Book recommended:-

Freeman - Natural Resources and Urban Development

E. Ahamad - Regional Planning
 R.P.Misra - Regional Planning
 Prakash Rao - Regional Planning

• R.L.Sharma - Town and Regional Planning

Sundaram - Regional Planning

GROUP (G) URBAN GEOGRAPHY AND PLANNING

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be the questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions. Three examination shall be of three hours duration and shall carry 100 marks.

UNIT - 1:-

Concept and scope of Ocean geography. Origin and Evolution of towns. Site and situation, Locational classification of towns.

UNIT - 2:-

Urban population growth, structure and characteristics of Indian towns.Urban growth concept. Theories of Burgess. Hoyt and Harris Ullman.

UNIT - 3:-

Urban land use, urban functions and functional classification urbanmorphology.

UNIT - 4:-

Inter- town and town- country relationship, city region and umlandconcept, core and fringe area concept, metropolitan region, conurbation.

UNIT - 5:-

Urban and regional survey planning concept, urban planning Metropolitanplanning and regional survey planning. Towns and cities and central placesand growth poles, Master plans.

Book recommended:-

Freeman - Natural Resources and Urban Development

Smailes - Geography of TownsTaylor - Urban Geography

Dickinson - City, Region and Regionalism

• Bansal - NagariyaBhugol

GROUP (H)

RACIAL AND TRIBAL GEOGRAPHY

Time:3 Hours F. M.:- 100 Marks

The course has been divided into five units. There shall be ten questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions. The examination shall be of three hours duration and shall carry 100 marks.

UNIT - 1:-

Definition and scope of Racial and Tribal Geography, its relation with Anthropology, Sociology and Psychology. Evolution of man, men's place among primates, emergence of later man, prehistoric man.

UNIT - 2:-

Concept to trace- physical determinants. Classification of living races of theworld, race and culture, races or prehistoric India. Paleolithic and Mesolithic. Controversy regarding classification of Indian races.

UNIT - 3:-

Study of the following races- Bushmen, Hottentots. Polynesian and Eskimos- their Physical, economic and social characteristics.

UNIT-4:-

Tribes of India- Habitat, Economy, Society, economic grading tribalorganization, social structure and customs.

UNIT - 5:-

Study of following tribes of Bihar: Munda ,Oraon, Santhal their physical,economic, social and political characteristics, Impact of urbanization and and ustrialization on tribes of Bihar.

Book recommended:-

- Croeber Anthropology
- R.P.Singh& A. Singh Manav Udbhav Evam PrajatiyaAdhyan
- M.Prasad -Tribals: Their Environment and Culture
- Sachindranandan Profiles of tribal culture in Bihar

GROUP (I) ENVIRONMENTAL GEOGRAPHY

Time:3 Hours F. M.:- 100 Marks

UNIT - 1:-

Environmental geography —concept, scope and approaches, Ecology and Ecosystems .

UNIT - 2:-

Man-Environment relationship in Equatorial, Mountain, Desert, Coastaland Monsoon regions.

UNIT—3:-

Environmental programs and Policies — Developed& Developing countries.

UNIT- 4:-

Environmental Problems- Air, Water and Soil Pollution, their causes and impact; Redressal of Environmental problems

UNIT—5:-,

Environmental Policy of India; Government's recentinitiatives on environment.

Book recommended:-

- UNED (2007) Global Environment outlook :- Environment fordevelopment, University press, Cambridge.
- Hudson, T.(2011), Living Neil Earth :- An introduction to Environmentalzoology PHI Learning PVT Ltd. New Delhi,
- Singh, RB (1993) Environmental geography, Heritage Publishes NewDelhi.
- Singh Shaviridra (2001) PrayavaranBhoogol, PrayagPuslak Bhawan Allahabad.

Paper —VIII

PRACTICAL 100 Marks

The course has been divided into five units. There shall be ten questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions .The examination shall be of three hours duration and shall carry 75 marks.

UNIT-1:-

Surveying- Plane Table Survey, Resection with Plane Table. Open and closed Traverse Prismatic Compass, 25Marks.

UNIT-2:-

Geological Section and Interpretation of Geolog1ca1 Sheets. 15 Marks

UNIT-3:-

Meaning, types and objection & of Field work, field workmethods and techniques importation of field work in Geography.10 Marks.

UNIT-4:-

Project Report A Short analysis With maps based on field study and collection ofdata on any topic approved by the Head. 10 Marks.

UNIT-5:-

Record of Practical work and Viva voce. 20 Marks.

Booksrecommended:—

- Singh and Dutta Elements of Practical Geography.
- Singh and Kanaujia Practical Geography.
- Jagdish Singh and PrayogikBhogol.
- P. Satpathi GanitikBhugol Pt. 1& 11.

PRACTICAL 100 Marks

The course has been divided into five units. There shall be ten questions of whichtwo questions shall be set from each unit. The examinees shall be required toanswer five questions .The examination shall be of three hours duration and shall carry 75 marks.

UNIT-1:-

Surveying- Plane Table Survey, Resection with Plane Table. Open and closed Traverse Prismatic Compass, 25Marks.

UNIT-2:-

Geological Section and Interpretation of Geolog1ca1 Sheets. 15 Marks

UNIT-3:-

Meaning, types and objection & of Field work, field workmethods and techniques importation of field work in Geography.10 Marks.

UNIT-4:-

Project Report A Short analysis With maps based on field study and collection ofdata on any topic approved by the Head. 10 Marks.

UNIT-5:-

Record of Practical work and Viva — voce. 20 Marks.

Booksrecommended:—

- Singh and Dutta Elements of Practical Geography.
- Singh and Kanaujia Practical Geography.
- Jagdish Singh and PrayogikBhogol.
- P. Satpathi GanitikBhugol Pt. 1& 11.

B.A. (Subsidiary)

Students who have offered Honours in any subject other than Geography, shall have to appear in two papers of 100 marks each, with examination in one paper each in the first two years of the plus three course. The distribution of marks shall be as follows:

1st Year- 75 Marks Theory, 25 Marks Practical 2nd Year-75 Marks Theory, 25 Marks Practical

Paper I (A)

Theory- 75 Marks

The course has been divided into five units. There shall be ten questions of which two questions shall be set from each unit. The examinees shall be required to answer five questions, selecting three from Section A and two from Section B. The examination shall be of three hours duration and shall carry 75 marks.

SECTION A

Unit-1:-

Isostasy; Continental Drift; Kober's and Holmes' theories of mountain-building, Internal structure of the Earth.

Unit-2:-

Arid Topography; Glacial topography, Volcanic topography, Coastal topography, Karst Topography, Normal Cycle of Erosion.

Unit 3:-

Salinity of Ocean Water, Ocean Deposits, Coral reef and Atolls, Koppen's Classification of climate, evidences of climate change, Classification of Airmasses and Fronts.

SECTION B

Unit 4:-

Agriculture – Subsistence, Comercial Grain and Dairy Farming; Minerals – Coal, Petroleum, Iron ore-their distribution and production

Unit 5:-

Industry – Iron and Steel, Cotton Textile and Sugar Industry; Trade Routes- North Atlantic and Suez Canal

Book recommended:-

Woolridge and Morgan - Physical Basis of Geography

Strahler and Strahler - Physical Geography.
 D.S.Lal - Climatology

• Sharma and Vatal - Oceanography for Geographers

• Savindra Singh - Bhu-Akriti Vigyan

• B.S.Negi - Climatology and Oceanography (Hindi)

• K.N.Singh - ArthikBhugol

Paper I (B)

Practical – 25 Marks

The course has been divided into three units. There shall be three questions, one from each unit and the examinees shall be required to answer all questions. The examination shall be of two hours duration and shall carry 25 marks.

Unit 1:-

Enlargement and Reduction of Maps; Cartograms- Compound Bar, Proportionate Pie and Dot, Band Graph.

10 Marks

Unit 2:-

Interpretation of Topographical Maps and Weather Maps.

10 Marks

Unit 3:- Record of Practoical work and Viva voce

5 Marks

Book recommended:-

• Singh and Dutta - Elemernts of Practical Geography

• J. P. Sharma - PrayogatmakBhugolkiruprekha

B.A-II (SUBSIDIARY)

Paper—II(A)

Theory -75 Marks

GEOGRAPHY OF INDIA

The Course has been divided into five units. There shall be ten guestions of which two questions shall be set from each unit. The examinees shall be required to answer five questions, selecting two from Section A there from Section B. The examination. shall be of three hours duration and duration and shall carry 75 marks.

Unit 1:-

Physiography, Structure, Climate, Soil and natural Vegetation.

Unit 2:-

Major crops —Rice, Wheat, Tea, Sugarcane. Major Industries—Iron and steel, Cotton textile and sugarcane.

Unit 3:-

Major Mineral — Coal, Petroleum, Iron ore, Manganese and Mice, their production and distribution.

Unit 4:-

Population— Growth, distribution, Population problem and policy, Types of rural settlements, urban growth.

Unit 5:-

Bihar — Physiography and structure, climate, natural vegetation, agriculture, industries, minerals Iron ore & Mica.

Book recommended:-

Gopal Singh

P. Dayal

- Geography of India.

- Bharat ka Arthik Avam Pradeshik Bhugol (Hindi)

• E. Ahmad

-Bihar: A Physical, Regional and Economic Geography. '

Singh and Kumar

- A monograph of Bihar.

• C. B. Mamoria

- Bhart Ka Bhugol(Hindi)

Paper-II(B) Subsidiary

Practical-25 Marks

The course has been divided into three units. There shall be three questions, one from each unit and the examiners shall be required to answer all questions. The examination shall be of three hours duration and shall carry 25 marks.

UNIT-1:-

Map Projections- cylindrical equal area and equidistant, zenithal equal area and equidistant, Conical projection with one and two standard parallels.10 marks

UNIT-2:-

Simple Statistics— Mean, Median and Mode, Quartiles and standard deviation. 10 marks

UNIT-3:-

Record of practical work and Tour report and Viva-voce. 5 marks

Book recommended:-

• Singh and Dutta -Element of Practical Geography.

• Singh and Kanaujia -Practical Geography.

• Jagdish Singh &other -Prayogik Bhugol (Hindi).

• D. D. P. Satpathi - Ganitik Bhugol Pt.1 &1 I(Hindi)