GEOGRAPHY

B.A, Honours, Part-I

PAPER – 1 (A)- (Full Marks- 75)

PHYSICAL GEOGRAPHY

Unit- 1	Origin and solar system (Theories of Kant, Laplace, Jeans and Jeffrey's and Big Bang Theory) Internal Structure of the Earth Isostasy: Pratt's and Airy's views Earthquake and Volcanism
Unit-2	Kober's and Holmes views on mountain Building Wegener's theory of Continental Drift Plate Tectonics Folded Topography Faulted Topography
Unit-3	Normal Cycle of Erosion Arid Topography Glacial Topography Karst Topography
Unit-4	Composition and structure of Atmosphere Classification of Air masses Fronts Cyclones Koppen's and Thornthwaite Scheme of Classification of Climate Climate Changes- Causes and Evidences
Unit-5	Salinity of Ocean water Relief of Ocean Floor: Continental Shell, Slope and Deep Sea Plain Relief of the Indian and Atlantic Ocean Ocean Currents Tides

Paper- II (A)

ASIA: REGIONAL GEOGRAPHY Full Marks- 75

Ten questions will be set in all selecting two questions from each Unit Examinees will required to answer five questions selecting one from each unit.

- Unit- 1 <u>Asia: Physical aspect</u> Structure Physiography Drainage Climate Natural Vegetation
- Unit- 2 <u>Asia: Economic and Human Resources</u> Characteristics of Agriculture Mineral Resources- Iron ore, Manganese, Tin and Bauxite Power Resources- Coal, Petroleum, and Hydral Power Population and its Problems

SECTION B

Unit-3	<u>China</u>
	Physiography
	Climate and Agriculture regions
	Industrial Development
	Industries- Iron and Steel, Cotton Textile
	Population
Unit-4	<u>Japan</u>
	Physiography
	Fisheries
	Industries- Iron and Steel and Automobile
	Industrial Regions
	Population
Unit-5	Neighboring Countries
	A balanced Geographical account of Bangladesh, Nepal, Pakistan, Sri Lanka and
	Bhutan.

PAPER- I (B) & II (B) PRACTICAL – 50 MARKS

Unit-1:	Scale: Simple, Comparative and Diagonal	15 Marks
	Enlargement and Reduction of maps	
Unit- 2:	Interpretation of Topographic Maps	10 Marks
	Cartograms: Bar Diagram- Simple and Compound, Pie Diagram	
Unit- 3:	Map Projection	15 Marks
	Cylindrical Equi-distant	
	Cylindrical Equal area	
	Zenithal Equal Area	
	Simple Conical with One Standard Parallel	
	Conical with Two Standard Parallel	
Unit- 4:	Record of Practical Work and Viva- Voce	10 Marks

<u>GEOGRAPHY</u> <u>B.A. Honours Part- II</u> <u>PAPER- III (A)- (Full Marks- 75)</u> <u>GEOGRAPHY OF INDIA</u>

Unit- 1	<u>Physical Aspects</u> Structure Physiography Drainage system- Himalayan and Peninsular Origin and Characteristics of Indian Monsoon Natural Vegetation
Unit-2	<u>Agriculture</u> Soil- types, erosion and conservation Characteristics of Agriculture Major Crops- Rice, Wheat, Sugarcane and Coffee Importance and means of irrigation
Unit-3	Minerals and Industries Mineral Resources- Iron ore, Manganese, Mica Power Resources- Coal, Petroleum and Hydel Power Selected Industries- Iron and steel, Cotton textile and Sugar
Unit- 4	Population Growth and Distribution Population Problems and Policies Types and Patterns of rural settlements Rural- Urban Migration
Unit- 5	Geography of Bihar Structure and Physiography Agriculture Crops: Rice, Wheat, Maize, Pulses Agricultural Regions River Valley Projects: Gandak, Kosi, Son Flood and Drought Problems Population

<u>GEOGRAPHY</u> <u>B.A. Honours, Part- II</u> PAPER- IV (A) – (Full Marks- 75) <u>ECONOMIC AND RESOURCE GEOGRAPHY</u>

Ten questions will be set in all selecting two questions from each Unit Examinees will required to answer five questions selecting one from each unit.

SECTION- A ECONOMIC GEOGRAPHY

Unit- 1	Agriculture
	Subsistence Farming
	Commercial Farming
	Plantation Agriculture
	Dairy Farming
	Mediterranean Agriculture
Unit- 2	<u>Industries</u>
	Industrial Location Theory of Weber
	Agriculture Location Theory of Von Thunen
	Iron and Steel Industry
	Cotton Textile Industries
	Sugar Industry
Unit-3	Transport and Trade
	International trade with reference to WTO
	Globalization and its impact on economy
	Trade routes- Suez and Panama canals
	SECTION- B
	RESOURCE GEOGRAPHY
Unit- 4	Concept of Resources
	Meaning, Concept and Classification of resources
	Soil, water and forest resources- their distribution, utilization and conservation
	Fisheries of the World
Unit-5	Mineral and Resources
	Distribution and Production of the following resources
	Coal in USA and China
	Petroleum in the Middle East

Petroleum in the Middle East

Iron ore in Russia and Australia

Manganese in Russia and USA

PAPER- III (B) & IV (B)

Unit- 1	Cartograms	15 Marks
	Proportionate Circles	
	Climograph	
	Hythergraph	
	Isopleth and Choropleth	
	Age and Sex Pyramid	
Unit- 2	Projections	15 Marks
	Bonne's Projection	
	Polyconic, Sinusodial and Mercator's Projection	
	Polar cases of Gnomonic ,Stereographic & Orthographic Proje	ction
Unit- 3	Simple Statistical Techniques	10 Marks
	Mean	
	Median	
	Mode	
	Quartile and Standard Deviation	
Unit- 4	Record of Practical Work and Viva- voce	10 Marks

GEOGRAPHY B.A. HONOURS Part- III PAPER- V (Full Marks- 100)

Ten questions will be set in all selecting two questions from each Unit Examinees will required to answer five questions selecting one from each unit.

SECTION- A GEOGRAPICAL THOUGHT

- Unit-1 Meaning and Definition of Geography Its relationship with other sciences Contribution of Ancient Geographers Eratosthenes, Ptolemy Contribution made by Humbolt, Ritter, Ratzel, Vidal de la Blache and Mackinder in the field of Geography
- Unit- 2 Dualism in Geography :Determinism vs Possibilism & Noe-determinism,Physical Vs Human Geography,Systematic vs Regional Geography Quantitative Revolution in Geography Humanistic Geography,Gender Geography

SECTION- B HUMAN GEOGRAPHY

- Unit- 3 Meaning, Definition and Scope of Human Geography Evolution of Man Cultural realms of the world Human activities in Mountain environment, Monsoon lands, Equatorial regions Temperate Grasslands
 Unit-4 Growth and distribution of population Theories of Demographic Transition, Optimum population Distribution, habitat and economy, mode of life and socio- cultural organization of the following tribes- Eskimo, Bushman, Santhal, Oraon
 Unit- 5 Urbanization and related problems Growth Pole Theory Christaller's Central Place Theory
 - Migration- Internal and International

Part – VI (Full Marks- 100) ENVIRONMENTAL GEOGRAPHY & REMOTE SENSING

Ten questions will be set in all selecting two questions from each Unit Examinees will required to answer five questions selecting one from each unit.

SECTION A

Unit-1 Introduction to Environmental Geography

Meaning, Concept and Scope of Environmental Geography Factors affecting Environment Ecology and Eco System Major Ecosystem of the World Ecological Balance and Imbalance

Unit-2 Biogeography

Nature Scope and Significance of Biogeography Bio-energy Cycles Concept of Zoogeography Biodiversity and Hotspots

Unit-3 Environmental Degradation and Management

Natural Disasters: Drought, Flood and Earthquake- Causes, Effects and Mitigation Rain Water Harvesting Watershed Management Sustainable Development Eco-Tourism

SECTION- B REMOTE SENSING

- Unit- 4 Meaning and Scope of Remote Sensing History of Remote Sensing Process and Stages of Remote Sensing Properties of Electromagnetic Energy- Wave Length, Frequency and Velocity
- Unit- 5Difference between air photography and image
Electromagnetic Spectrum
Interaction of Electromagnetic Energy in the Atmosphere
Interaction of Electromagnetic Energy with Earth Surface features
Meaning, concept & objective of GIS

Part- VII (Full Marks- 100)

OPTIONAL PAPERS

Students are required to opt any one group out of Groups A, B, C and D.

GROUP-A POPULATION GEOGRAPHY

Unit- 1	Meaning and Scope of Population Geography
	Science of Demography
	Recent trend of Population growth with special reference to developed and
	developing countries.
	Methods of population projections
Unit-2	Fertility measures and determinants
	Mortality measures and determinants
	Internal and International Migration
	Malthusian Theory of Population
Unit-3	Growth Pattern of World Population
	Distribution of World Population
	Problems Caused by Differential Population Pressure
	Population Policies of Russia and China
Unit-4	Population Composition in India
	Occupation Structure
	Literacy
	Age and Sex
	Major Religions
	Languages
Unit-5	Growth of Population in India
	Distribution and Density
	Urbanization in India
	Problems of Urbanization
	Population Policy in India

Part- VII (Full Marks- 100) OPTIONAL PAPER GROUP- B GEOLOGY OF INDIA

Unit 1	Nature and Scope of Geology
	Standard Stratigraphical Scale
	Indian Stratigraphical Scale
	Principles of co-relation of standard and Indian Stratigraphical scale
Unit 2	Classification, mode of occurrence and distribution of Iron ore, Copper, Mica, Manganese, Coal, Petroleum and Atomic Minerals
Unit 3	Petrological characteristics, Classification, distribution and economic Importance of Dharwar, Vindhyan, Gondwana and Tertiary Systems
Unit 4	Origin, mode of occurrence and distribution of Igneous, Sedimentary and Metamorphic rocks Metamorphism
Unit 5	Geological Evolution of Himalayas Chotanagpur plateau Rajmahal highlands Deccan Trap
	Aravalli

Part- VII (Full Marks- 100) OPTIONAL PAPER GROUP- C CARTOGRAPHIC MAP MAPPING

Unit-1	Definition and explanation of astronomical terms
Unit-2	Determination of latitude with the help of meridian altitude of star Longitude and solar time Sidereal time
Unit-3	Definition and classification of map projections Mathematical construction, Properties and uses of the following map projection (but not co-ordinates) Zenithal and equal area and Gnomonic (Polar case) Conical- Simple conical projection with one standard parallel and Bonne's projection Constant of Cone Cylindrical- Equal area, Mercator's Projection
Unit- 4	Acquaintance with Theodolite Principal of Sextant Shape and Size of the earth Scale and their types Scale of spheres and circles Vernier Scale
Unit- 5	Modern techniques of map making Survey of India maps Format and Symbol's of Map Acquaintance with photogrammetry Types and Interpretation of aerial photographs

Part- VII (Full Marks- 100) OPTIONAL PAPER GROUP- D URBAN GEOGRAPHY AND PLANNING

Unit- 1	Concept and scope of Urban Geography Origin and evolution of town Site and Situation Location and Classification of towns
	Functional classification of towns
Unit-2	Urban Population growth in India Morphological Characteristics of Indian Towns Urban growth concept- Theories of Burgess, Hoyt, Harris and Ulman
Unit-3	Urban Land Use Urban Functions Urban Morphology Urban Land use planning
Unit-4	Town country relationship City region and Umland concept Rural- Urban Fringe Metropolitan region Conurbation
Unit-5	Urban and Regional Survey Metropolitan planning and regional planning Towns and cities as central places Master Plan of Patna Concept of Smart City

PAPER VIII Practical (Full Marks- 100) SECTION- A (50 Marks)

Unit-1	Surveying Plane Table Survey Resection with Plane Table Open and Closed Travers with Prismatic Compass Leveling	15 Marks
Unit-2	Geological Section and Interpretation of Geological Maps	15 Marks
Unit-3	Identification of Rocks and Minerals Record of Practical work and viva- voce	10 Marks 10 Marks
	SECTION-B (50 Marks)	30 Marks
Unit-4	Project Report: A short analysis with map based on field survey a data on any topic approved by Head of the Department	nd collection of
Unit-5	 Tour Report A geographical account written by the students after visiting any of following regions with appropriate maps, diagrams and data (to approved by the H.O.D)- a maximum of 15 days a. Deccan region b. Delta region c. Chotanagpur plateau d. Central India e. North and Eastern Himalayas f. Rajgir 	20 Marks of the
	OR any other region	

B.A- I GEOGRAPHY (SUBSIDIARY) PAPER- I (A) (Full Marks- 75) SECTION- A PHYSICAL AND ECONOMIC GEOGRAPHY

Ten questions will be set in all selecting two questions from each Unit Examinees will required to answer five questions selecting one from each unit.

Unit-1	Origin of the Earth
	Internal structure of the Earth, Isostasy, Continental drift, Kober's and Holme's
	theory of mountain building
Unit-2	Normal Cycle of Erosion, Arid topography, Volcanic topography, Karst
	Topography
Unit-3	Salinity of Ocean water, Relief of the Ocean floor, Ocean currents
	Composition and Structure of atmosphere, Rainfall and clouds

SECTION-B

Unit- 4	Agriculture- Subsistence, commercial grain farming, Plantation
	Minerals- Coal, Petroleum, Iron- ore
Unit- 5	Selected Industries- Iron and steel in USA and Japan, Cotton textile of U.S.A and
	China
	Major trade routes- Suez Canal, Panama Canal

PAPER- I (B) (Subsidiary) PRACTICAL

Full Marks- 25

Unit-1

(a)	Cartograms- Simple and Compound Bar Diagrams	10 Marks
	Pie Diagrams	
(b)	Enlargement and reduction of maps,	
	Interpretation of weather maps	10 Marks

Unit- 2 Record of Practical works and viva- voce

5 Marks

B.A- II GEOGRAPHY (SUBSIDIARY) PAPER- II (A) (Full Marks- 75)

GEOGRAPHY OF INDIA

Ten questions will be set in all selecting two questions from each Unit Examinees will required to answer five questions selecting one from each unit.

Physiography, Drainage, Climate, Soil, Natural Vegetation
Crops- Rice, Wheat, Tea Industries- Iron and Steel, Cotton textile, Sugar
Mineral and Power Resources- Coal Petroleum, Iron ore Manganese and Mica- Production and Distribution
Population- Growth, Distribution & Problems Types of rural settlement, Trends of Urban Growth
Bihar- Physiography, Climate, Agriculture, Population, Floods and Droughts

PAPER- II (B) Subsidiary PRACTICAL

Full Marks- 25

Unit-1

- a. Simple Statistical Methods- Mean, Median and Mode, Standard Deviation 10 Marks
- b. Map projection: Zenithal equi- distant, Simple Conical with one standard parallel and Cylindrical equal area

Unit-2 Record of Practical Work and Viva Voce 5 Marks