

B.A. (Hons) Geography Syllabus
CHOICE BASED CREDIT SYSTEM (CBCS)

S.C.S. (A) College, Puri



Academic Session

2015-18

CBCS - B.A. Geography (Hons) Syllabus

+3 1st Year
SEMESTER – I

Paper- 1 GEOGC-1(Theory) Credits-4 Marks-75

Geomorphology

- Unit I:** Nature, Scope & 5 fundamental concepts of geomorphology
- Unit II:** Interior of the earth, Isostasy, Continental theory, Plate Tectonics.
- Unit III:** Earthquakes, Volcanoes, Mountain building theory of Kober and Holmes
- Unit IV:** Features produced in Fluvial, Aeolian, Glacial topography.
- Unit V:** Weathering, Mass Wasting, Cycle of Erosion (Davis and Penck)

Paper- 1 GEOGC-1(Practical) Credits-2 Marks- 25

Practical

1. Interpretation of topographical maps and drawing of profiles
2. Drawing of cross section from geological maps and interpretation
3. Practical records and viva -voce

Paper- 2 GEOGC-2 (Theory) Credits-4 Marks-75

Cartographic Techniques

- Unit – I:** Nature of cartography: a) Forms of representation and needs of map making, characteristics of maps, Categories of maps. b) Scope of cartography c) branches of cartography
- Unit – II:** History of cartography –a) Primitive, medieval and modern period b) Impact of changing ideas and technology c) electronic technology and digitization of maps
- Unit – III:** Basic Geodesy – a) Spherical earth, Ellipsoidal earth, Geoidal earth b) Cartographic use of the sphere, ellipsoid and geoid c) geographical coordinates – latitude and longitude
- Unit – IV:** Map Projections –a) Meaning and needs b) Use of developable surface c) Classification, and properties.
- Unit – V:** Map making –a) Relief maps and diagram b) climatic maps and diagram c) Socioeconomic maps and Diagram

Paper- 2GEOGC-2(Practical) Credits-2 Marks- 25

1. Cartograms –Complex bar, wheel diagram, cube diagrams
2. Maps drawing –Dot maps, Choropleth maps (taking two indicators)
3. Practical record and viva-voce

Paper- 3 GEOGAECC-1 Credits-2 Marks-50

(English/M.I.L Communication)/Environmental Science

Paper-4 GEOGGE-1(Theory) Credits-4 Marks-75

Rural Development/Other related discipline

1. Defining Development: Inter-Dependence of Urban and Rural Sectors of the Economy; Need for Rural Development, Gandhian Concept of Rural Development.
2. Rural Economic Base: Agriculture and Allied activities, Need for Expanding Non-Farm Activities.
3. Area Based Approach to Rural Development: Drought Prone Area Programmes, PMGSY.
4. Target Group Approach to Rural Development: SJSY (Integrated Rural Development Programme).
5. Provision of Services – Physical and Socio-Economic Access to Elementary Education and Primary Health Care and Micro credit

Paper-4 GEOGGE-1(Practical) Credits-2 Marks-25

Rural Development/Other related discipline

1. Cartograms – Pair-Bar diagram, complex bar, wheel diagram
2. Maps drawing –Simple dot maps, Multiple dot maps
3. Practical record and viva-voce

SEMESTER – II

Paper- 5 GEOGC-3 (Theory) Credits-4 Marks-75

Climatology

- Unit I. Atmospheric Composition and Structure. Insolation and Temperature – Factors and Distribution, Heat . . . Budget, Temperature Inversion.,
- Unit II. Atmospheric Pressure and Winds – Planetary Winds, Forces affecting Winds, General Circulation, Jet Streams.
- Unit III. Atmospheric Moisture – Evaporation, Humidity, Condensation, Fog and Clouds, Types of cloud. Precipitation and its type
- Unit IV. Cyclones – Tropical Cyclones, Extra Tropical Cyclones, Monsoon - Origin and Mechanism.
- Unit V. Airmass- Source region characteristics, types and modification.

Paper- 5 GEOGC-3 (Practical) Credits-2 Marks-25

Practical:-

1. Interpretation of weather map, Weather forecasting.
2. Drawing of graphs showing rainfall, temperature, humidity ,
3. Drawing of Climograph and Hythergraph. Wind rose diagram).
4. Practical records and viva -voce

Paper-6 GEOGC-4 (Theory) Credits-4 Marks-75

Thematic Cartography

- Unit I:** Definition and Types of Thematic Maps, Factors Associated with Thematic map, Choice of Base ,Maps, Data and Their Representation, Data Generalization, Standardization of Symbols, Compilation of Data, Design of Maps, Cartographic Equipment's, Drawing Media, Map compilation,
- Unit II:** Cartographic design: Function and scope of design, Limitation and constraints in Map Designing ,Concept of Map symbolization: Use of Point, Line and Area symbols, Conventional Signm,Symbols of physical and cultural themes on maps,

Unit III: Mapping the terrain, Relief representation by different methods: Spot height, Bench Marks, Hachuring, Hill Shadings, Use of Contours in Representation of Relief, Gradient and Slope Significance, Calculation of Gradient, Methods of average slope determination (Raisz & Henry Method, Wentworth's method, Smith's method),

Unit IV: Mapping Qualitative Data: Use of Pictures and Symbols (Simple and Multiple Dots), Pictorial Maps, Mapping Spatial Variation using Quantitative Data using Diagrams; One Dimensional (Simple and Complex Bars) Two Dimensional (Circles and Pie Diagrams) Three Dimensional (Spheres and Block Diagrams) Mapping Spatial Variation Using the Techniques of Choropleth and Isopleths.

Unit V: Indexing of Topographic Maps and Map Numbering System, Interpretation and analysis of physical details, Interpretation and Analysis of Cultural Details and Settlement Patterns, Interpretation of Cadastral Maps, Symbols in Cadastral Maps, Measurement on Cadastral Map

Paper-6 GEOGC-4 (Practical) Credits-2 Marks-25

Practical

1. Construction and use of Graphical Scale, R.F., Statement Scale, Diagonal Scale
2. Construction of dot maps (simple and multiple), proportionate circle
3. Construction of: Spheres and Block diagrams
4. Drawing of Isopleths using spot height / rainfall / temperature / pressure
5. Drawing of Choropleths using population density / literacy
6. Practical records and viva -voce

Paper-8 GEOGGE-2(Theory) Credits-4 Marks-75

Industrial Geography

Unit I. Nature, Scope and Subject Matter of Industrial Geography

Unit II. Types, Geographical Characteristics and Location of Industries: Small and Medium

Enterprises, Coal and Iron, Tertiary Industries, Rural based Industries.

Unit III. Mega Industrial Complexes: National Capital Region, Mumbai-Pune Industrial Region, Bengaluru-Tamil Nadu Industrial Region and Chota Nagpur Industrial Region.

Unit IV: Impact of Industrialization in India: Environmental; Social and Economic

Unit V Industrial Policy of India

Paper-8 GEOGGE-2(Practical) Credits-2 Marks-25

Report on a particular industry of your region

1. Selection of project topic for study of an industry
2. Data collection.
3. Compilation and analysis of data,
4. Preparation of chart and diagrams.
5. Interpretation and preparation of project

SEMESTER – III

Paper-9 GEOGC-5 (Theory) Credits-4Marks-75

Environmental Geography

- Unit I:** Environmental Geography – Concept and Scope, Environmental contrast (biotic and abiotic, global, continental, local) Environmental control (light, temperature, topography , water edaphic factor)
- Unit II:** Environmental zones and their classification, concept of biomes
- Unit III:** Ecosystem – Concept, Structure and Functions , basic ecological principle, trophic level and food chains, biogeochemical cycle , energy flow in ecosystem.
- Unit IV:** Environmental pollution : causes ,consequences and management (land , air ,water)
- Unit V:** Man environmental relationship :Historical progression,Adaption, Disharmony between man and nature; global ecological imbalance, achieving balance; concept of spaceship earth

Paper-9 GEOGC-5 (Practical) Credits-2 Marks-25

Practical

1. Drawing of maps to show the relief, soil, and vegetation.
2. Drawing of maps to show the amenities of the area
3. Representation of population data by small squares, proportionate circle, divided rectangle.
4. Practical records and viva -voce

Paper-10 GEOGC-6(Theory) Credits-4 Marks-75

Economic Geography

- Unit I:** Introduction: Concept and classification of economic activity
- Unit II:** Factors Affecting location of Economic Activity with special reference to Agriculture, locational theory of Von Thunen ; Industry and locational theory of Weber
- Unit III:** Primary Activities: Subsistence and Commercial agriculture, forestry, fishing and mining.
- Unit IV:** Secondary Activities: Manufacturing (Cotton Textile, Iron and Steel),
- Unit V:** Tertiary Activities: Transport, Trade and Services. Concept of Manufacturing Regions, Special Economic Zones and Technology Parks.

Paper-10 GEOGC-6(Practical) Credits-2 Marks-25

Practical

1. Determination of agricultural efficiency (Kendal and Bhatia method) and to show on maps
2. Drawing of isotims and isodapane.
3. Representation of transport data –traffic flow diagram, isochronic map
4. Practical records and viva -voce

Paper-11 GEOGC-7 (Theory) Credits-4 Marks-75

Field Work and Research Methodology

- Unit I:** Field Work in Geographical Studies – Role, Value and Ethics of Field-Work
- Unit II:** Defining the Field and Identifying the Case Study – Rural / Urban / Physical / Human / Environmental.

- Unit III:** Field Techniques – Merits, Demerits and Selection of the Appropriate Technique; Observation (Participant / Non Participant), Questionnaires (Open/ Closed / Structured / Non-Structured); Interview with Special Focus on Focused Group Discussions; Space Survey (Transects and Quadrants, Constructing a Sketch)
- Unit IV:** Use of Field Tools – Collection of Material for Physical and Socio-Economic Surveys.
- Unit V:** Designing the Field Report – Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report.

Paper-11 GEOGC-7(Practical) Credits-2 Marks-25

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The students / teachers can opt to take students in or outside the NCR, depending upon, problem to be studied.
3. The duration of the field work should not exceed 10 days.
4. The word count of the report should be about **8000 to 12,000** excluding figures, tables, photographs, maps, references and appendices.
5. Report in soft and hard copy and viva

Paper-12 GEOGSEC-1 Credits-2 Marks-50

Not applicable

Paper-13 GEOGGE-3(Theory) Credits-4 Marks-75

Geography of Tourism/Other related discipline

1. Scope and Nature: Concepts and Issues, Tourism, Recreation and Leisure Inter-Relations; Geographical Parameters of Tourism by Robinson; Type of Tourism: Nature Tourism, Cultural Tourism, Medical Tourism, Pilgrimage
2. Recent Trends of Tourism: International and Regional; Domestic (India); Eco-Tourism, Sustainable Tourism, Meetings Incentives Conventions and Exhibitions (MICE)
3. Impact of Tourism: Economy; Environment; Society
4. Tourism in India: Tourism Infrastructure; Case Studies of Himalaya, Desert and Coastal Areas; National Tourism Policy

Paper-13 GEOGGE-3(Practical) Credits-2 Marks-25

Practical

1. Drawing of cartograms – Pair bar diagram ,Complex bar diagram, wheel diagram
2. Drawing of maps – Choropleth
3. Practical records and viva -voce

SEMESTER – IV

Paper-14 GEOGC-8 Credits-4 Marks-75

Evolution of Geographical Thought

1. Paradigms in Geography

2. Pre-Modern – Early Origins of Geographical Thinking with reference to the Classical and Medieval Philosophies.
3. Modern – Evolution of Geographical Thinking and Disciplinary Trends in Germany, France, Britain, United States of America.
4. Debates – Environmental Determinism and Possibilism, Systematic and Regional, Ideographic and Nomeothetic.
5. Trends – Quantitative Revolution and its Impact, Behaviouralism, Systems Approach, Radicalism, Feminism; Towards Post Modernism – Changing Concept of Space in Geography, Future of Geography.

Paper-14 GEOGC –8 (Practical)Credits-2 Marks-25

1. Types of map projection, properties and uses
2. Drawing of projection (Cylindrical- simple and cylindrical equal area
3. Drawing of projection (simple Conical with one standard parallel and two standard parallel, poly conic)
4. Drawing of projection (Gnomonic, Stereographic, Ortographic)
5. Practical records and viva -voce

Paper-15 GEOGC-9(Theory) Credits-4 Marks-75

Statistical Methods in Geography

1. Use of Data in Geography: Geographical Data Matrix, Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).
2. Tabulation and Descriptive Statistics: Frequencies (Deciles, Quartiles), Cross Tabulation, Central Tendency (Mean, Median and Mode, Centro-graphicTechniques, Dispersion (Standard Deviation, Variance and Coefficient of Variation).
3. Sampling: Purposive, Random, Systematic and Stratified.
4. Theoretical Distribution: Probability and Normal Distribution.
5. Association and Correlation: Rank Correlation, Product Moment Correlation, and Simple Regression,

Paper-15 GEOGC-9(Practical) Credits-2 Marks-2

1. Drawing of histogram frequency curve, frequency polygon, ogive
2. Drawing of graphs showing mean, median, mode and quartile
3. Calculation of correlation coefficient (spearman rank, Karl person product moment)
4. Drawing of regression line
5. Practical records and viva -voce

Paper-16 GEOGC-10(Theory) Credits-4 Marks-75

Human Geography

1. Definition, Nature, Scope, Major Subfields, Contemporary Relevance.
2. Space and Society: Cultural Regions; Race; Religion and Language
3. Population: Population Growth and Demographic Transition Theory, Application in India;

4. Population Distribution; Population Composition (Age, Gender, Race and Religion).
5. Settlements: Types and Patterns of Rural Settlements; Types of Urban Settlements; Trends and Patterns of World Urbanization

Paper-16 GEOGC-10(practical) Credits-2 Marks-25

Practical

1. Drawing of age sex pyramid
2. Drawing maps showing to show density of population
3. Drawing of Sphere diagram on map
4. Enlargement and reduction of maps
5. Practical records and viva -voce

Paper-17 GEOGSEC-2 Credits-6 Marks-100

N.A

Paper-18 GEOGGE-4 (Theory)Credits-4 Marks-75

Disaster Management /Other related discipline

1. Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification
2. Disaster in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping
3. Disaster in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping; Manmade disasters: Causes, Impact, Distribution and Mapping
4. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During Disaster

Paper-18 GEOGGE-4 (Practical)Credits-2 Marks-25

Report on a particular topic of your region

1. Selection of project topic
2. Data collection.
3. Compilation and analysis of data,
4. Preparation of chart and diagrams.
5. Interpretation and preparation of project
6. Report and viva

Year – 3

SEMESTER-V

Paper-19 GEOGC-11(Theory) Credits-4 Marks-75

Geography of India

1. Physical: Physiographic Divisions, Drainage
2. Climate, soil and vegetation.
3. Agricultural -production and distribution of rice, wheat, cotton, sugarcane; Mineral and power resources distribution and utilisation of iron ore, coal, petroleum,

4. Industry –production and distribution of iron and steel, aluminium,cotton textile
5. Population: Distribution and growth, rural –urban population, trends of urbanisation

Paper-19 GEOGC-11(Practical) Credits-2 Marks-25

1. Use of instrument – measurement of length of river or road and area by the help of planimeter and rotameter.
2. Chain and tape survey
3. Plane table survey
4. Practical record and viva

Paper-20 GEOGC-12(Theory) Credits-4 Marks-75

Remote Sensing and GIS (Practical)

1. Remote Sensing - Definition, Components, history and development, Platforms and types: Principles of Remote Sensing,
2. Satellite Remote Sensing, EMR Interaction with Atmosphere and Earth, Surface; Satellites (Landsat and IRS) and Sensors. Concept of signature, data reception and data products, data analysis
3. GIS- Definition , Components, history and development, characteristics of data base system, G.I.S data structure- types (spatial and Non-spatial), Raster and Vector.
4. Image Processing (Digital and Manual) and Data Analysis: Pre-processing (Radiometric and Geometric Correction), Enhancement (Filtering); Classification (Supervised and Un-supervised), Geo- Referencing; Editing and Output;
5. Data input and editing, error and its sources, G.I.S. operation, project design and management application

Paper-20 GEOGC-12(Practical) Credits-2 Marks-25

1. Interpretation and Application of Remote Sensing and GIS: Land use/ Land Cover,
2. Urban Sprawl Analysis
3. Forests Monitoring
4. Practical record and viva

Paper-21 GEOGDSE-1(Theory) Credits-4 Marks-75

Population Geography

1. Defining the Field – Nature and Scope; Sources of Data with special reference to India (Census, Vital Statistics and NSS).
2. Population Size, Distribution and Growth – Determinants and Patterns; Theories of Growth –Malthusian Theory and Demographic Transition Theory.
3. Population Dynamics: Fertility, Mortality and Migration – Measures, Determinants and Implications.
4. Population Composition and Characteristics – Age-Sex Composition; Rural and Urban Composition; Literacy,occupational structure
5. Contemporary Issues – Ageing of Population; Declining Sex Ratio; HIV/AIDS.

Paper-21 GEOGDSE-1(Practical) Credits-2 Marks-25

1. Population projection by various methods
2. Drawing of triangular diagram and lorence curve
3. Construction of compund and superimposed pyramids
4. Practical record and viva

Paper-22 GEOGDSE-2(Theory) Credits-4 Marks-75

Hydrology and Oceanography

1. Hydrological Cycle: Systems approach in hydrology, human impact on the hydrological cycle; Precipitation, interception, evaporation, evapo-transpiration, infiltration, ground-water, run off and over land flow.
2. River Basin and Problems of Regional Hydrology: Characteristics of river basins, basin surface run-off, measurement of river discharge; floods and droughts.
3. Ocean Floor Topography and Oceanic Movements – Waves, Currents and Tides.
4. Ocean Salinity and Temperature – Distribution and Determinants.
5. Coral Reefs and Marine Deposits and Ocean Resources: Types and Theories of Origin; Biotic, Mineral.

Paper-22 GEOGDSE-2(Practical) Credits-2 Marks-25

1. Survey by Prismatic Compass
2. Survey by The odolite (horizontal and vertical)
3. Levelling by Dumpy level
4. Practical record and viva

SEMESTER – VI

Paper-23 GEOGC-13(Theory) Credits-4 Marks-75

Regional Planning and Development

1. Definition and types of region - Formal, Functional .regions and regional Planning; need for regional planning; Hierarchy concept
2. Choice of a region for Planning: Characteristics of an Ideal Planning Region; Delineation of Planning Region; Regionalization of India for Planning (Agro Ecological Zones)
3. Theories and Models for Regional Planning: Growth Pole; Growth Centre and economic base theory
4. Changing Concept of Development, level of regional disparities vs diversities, balance regional development- backward area development,
5. Measuring development: Indicators (Economic, Social and Environmental), human development index

Paper-23 GEOGC-13(Practical) Credits-2 Marks-25

Practical

1. Transport network analysis –Alfa, Beta, Gama and detour indices
2. Nearest neighbour analysis
3. Determination of service center
4. Practical record and viva

Paper-24 GEOGC-14(Theory) Credits-4 Marks-75

Disaster Management based Project Work (Practical)

1. Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification
2. Disaster in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping

3. Disaster in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping; Manmade disasters: Causes, Impact, Distribution and Mapping
4. Response to Disasters: Resque, relief, reconstruction, planning, preparedness, Indigenous knowledge and community based knowledge
5. Disaster Management; Do's and Don'ts during Disaster, mechanism India and Odisha

Paper-24 GEOGC-14(Practical) Credits-2 Marks-25

Disaster management based project work

1. Selection of project topic
2. Data collection.
3. Compilation and analysis of data,
4. Preparation of chart and diagrams.
5. Interpretation and preparation of project
6. Report and viva

Paper-25 GEOGDSE-3(Theory) Credits-4 Marks-75

Urban Geography

1. Urban geography -, Nature and scope; origin and growth of urban settlement, history of urbanization.
2. Morphology of urban settlement, urban land use pattern, urban land use theory
3. Functional classification of cities: Quantitative and Qualitative Methods, Rank size rule, urban sphere of influence
4. Urban Issues: problems of housing, slums, civic amenities (water and transport)
5. Case studies of Delhi, Mumbai, Kolkata and Chennai with reference to Urban Issues

Paper-25 GEOGDSE-3(Practical) Credits-2 Marks-25

1. Functional classification of towns
2. Delimitation of C.B.D
3. Delemitation of urban sphere of influence

Paper-26 GEOGDSE-4 Credits-6 Marks-100

Project Report

Introducing Research Component in Under-Graduate Courses

Project work/Dissertation is considered as a special course involving application of knowledge in solving / analyzing /exploring a real life situation / difficult problem. A Project/Dissertation work would be of 6 credits. A Project/Dissertation work may be given in lieu of a discipline specific elective paper.

SEMESTER – II

Paper- 5 GEOGC-3 Credits-6 Marks-100

Climatology:

1. Atmospheric Composition and Structure – Variation with Altitude, Latitude and Season.
2. Insolation and Temperature – Factors and Distribution, Heat Budget, Temperature Inversion.

3. Atmospheric Pressure and Winds – Planetary Winds, Forces affecting Winds, General Circulation, Jet Streams.
4. Atmospheric Moisture – Evaporation, Humidity, Condensation, Fog and Clouds, Precipitation Types, Stability and Instability.
5. Cyclones – Tropical Cyclones, Extra Tropical Cyclones, Monsoon - Origin and Mechanism.

Paper-6 GEOGC-4 Credits-6 Marks-100

Thematic Cartography (Practical)

1. Maps – Classification and Types; Principles of Map Design.
2. Diagrammatic Data Presentation – Line, Bar and Circle.
3. Thematic Mapping Techniques – Properties, Uses and Limitations; Areal Data -- Choropleth, Dot, Proportional Circles; Point Data – Isopleths.
4. Cartographic Overlays – Point, Line and Areal Data.
5. Thematic Maps – Preparation and Interpretation.

Practical Record: A Thematic Atlas with ink should be prepared on a specific theme with five plates of any state in India.

Paper-7 GEOGAECC-2 Credits-2 Marks-50

Environmental Science/(English/M.I.L Communication)

Paper-8 GEOGGE-2 Credits-6 Marks-100

Industrial Geography/Other related discipline

1. Nature, Scope and Subject Matter of Industrial Geography
2. Types, Geographical Characteristics and Location of Industries: Small and Medium Enterprises, Coal and Iron, Tertiary Industries, Rural based Industries
3. Mega Industrial Complexes: National Capital Region, Mumbai-Pune Industrial Region, Bengaluru-Tamil Nadu Industrial Region and Chota Nagpur Industrial Region
4. Impact of Industrialisation in India: Environmental; Social and Economic
5. Industrial Policy of India

Year-2

SEMESTER – III

Paper-9 GEOGC-5 Credits-6 Marks-100

Environmental Geography

1. Environmental Geography – Concept and Scope
2. Human-Environment Relationships – Historical Progression, Adaptation
3. Ecosystem – Concept, Structure and Functions
4. Environmental Problems in Tropical, Temperate and Polar Ecosystems
5. Environmental Programmes and Policies – Global, National and Local levels

Paper-10 GEOGC-6 Credits-6 Marks-100

Economic Geography

1. Introduction: Concept and classification of economic activity
2. Factors Affecting location of Economic Activity with special reference to Agriculture, Industry and Services (Weber's theory: theories relating to agriculture and services have been dealt in other papers)
3. Primary Activities: Subsistence and Commercial agriculture, forestry, fishing and mining.
4. Secondary Activities: Manufacturing (Cotton Textile, Iron and Steel), Concept of Manufacturing Regions, Special Economic Zones and Technology Parks.
5. Tertiary Activities: Transport, Trade and Services.

Paper - 11GEOGC-7 Credits-6 Marks-100

Field Work and Research Methodology (Practical)

1. Field Work In Geographical Studies – Role, Value and Ethics of Field-Work
2. Defining the Field and Identifying the Case Study – Rural / Urban / Physical / Human / Environmental.
3. Field Techniques – Merits, Demerits and Selection of the Appropriate Technique; Observation (Participant / Non Participant), Questionnaires (Open/ Closed / Structured / Non-Structured); Interview with Special Focus on Focused Group Discussions; Space Survey (Transects and Quadrants, Constructing a Sketch)
4. Use of Field Tools – Collection of Material for Physical and Socio-Economic Surveys.
5. Designing the Field Report – Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report.

Practical Record:

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The students / teachers can opt to take students in or outside the NCR, depending upon, problem to be studied.
3. The duration of the field work should not exceed 10 days.
4. The word count of the report should be about **8000 to 12,000** excluding figures, tables, photographs, maps, references and appendices.
5. One copy of the report on A 4 size paper should be submitted in soft binding.

Paper-12 GEOGSEC-1 Credits-2 Marks-50

Advanced Spatial Statistical Techniques

1. Statistics and Statistical Data: Spatial and non-spatial; indices of inequality and disparity.
2. Probability theory, probability density functions with respect to Normal, Binomial and Poisson distributions and their geographical applications.
3. Sampling: Sampling plans for spatial and non-spatial data, sampling distributions; sampling estimates for large and small samples tests involving means and proportions.
4. Correlation and Regression Analysis: Rank order correlation and product moment correlation; linear regression, residuals from regression, and simple curvilinear regression; Introduction to multi-variate analysis.
5. Time Series Analysis: Time Series processes; Smoothing time series; Time series components.

Paper-13 GEOGGE-3 Credits-6 Marks-100

Geography of Tourism/Other related discipline

1. Scope and Nature: Concepts and Issues, Tourism, Recreation and Leisure Inter-Relations; Geographical Parameters of Tourism by Robinson; Type of Tourism: Nature Tourism, Cultural Tourism, Medical Tourism, Pilgrimage
2. Recent Trends of Tourism: International and Regional; Domestic (India); Eco-Tourism, Sustainable Tourism, Meetings Incentives Conventions and Exhibitions (MICE)
3. Impact of Tourism: Economy; Environment; Society
4. Tourism in India: Tourism Infrastructure; Case Studies of Himalaya, Desert and Coastal Areas; National Tourism Policy

SEMESTER – IV

Paper-14 GEOGC-8 Credits-6 Marks-100

Evolution of Geographical Thought

1. Paradigms in Geography
2. Pre-Modern – Early Origins of Geographical Thinking with reference to the Classical and Medieval Philosophies.
3. Modern – Evolution of Geographical Thinking and Disciplinary Trends in Germany, France, Britain, United States of America.
4. Debates – Environmental Determinism and Possibilism, Systematic and Regional, Ideographic and Nomeothetic.
5. Trends – Quantitative Revolution and its Impact, Behaviouralism, Systems Approach, Radicalism, Feminism; Towards Post Modernism – Changing Concept of Space in Geography, Future of Geography.

Paper-15 GEOGC-9 Credits-6 Marks-100

Statistical Methods in Geography

1. Use of Data in Geography: Geographical Data Matrix, Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).
2. Tabulation and Descriptive Statistics: Frequencies (Deciles, Quartiles), Cross Tabulation, Central Tendency (Mean, Median and Mode, Centro-graphic Techniques, Dispersion (Standard Deviation, Variance and Coefficient of Variation).
3. Sampling: Purposive, Random, Systematic and Stratified.
4. Theoretical Distribution: Probability and Normal Distribution.
5. Association and Correlation: Rank Correlation, Product Moment Correlation, and Simple Regression,

Paper-16 GEOGC-10 Credits-6 Marks-100

Human Geography

1. Definition, Nature, Scope, Major Subfields, Contemporary Relevance.
2. Space and Society: Cultural Regions; Race; Religion and Language
3. Population: Population Growth and Demographic Transition Theory, Application in India;
4. Population Distribution; Population Composition (Age, Gender, Race and Religion).

5. Settlements: Types and Patterns of Rural Settlements; Types of Urban Settlements; Trends and Patterns of World Urbanization

Paper-17 GEOGSEC-2 Credits-6 Marks-100

Research Methods (Practical)

1. Geographic Enquiry: Definition and Ethics; Framing Research Questions, Objectives and Hypothesis; Literature Review; Preparing Sample Questionnaire
2. Data Collection: Type and Sources of Data; Methods of Collection; Input and Editing
3. Data Analysis: Qualitative Data Analysis; Quantitative Data Analysis; Data Representation Techniques
4. Structure of a Research Report: The Preliminaries; The Text; References and Citations

Paper-18 GEOGGE-4 Credits-6 Marks-100

Disaster Management /Other related discipline

1. Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification
2. Disaster in India: (a) Flood: Causes, Impact, Distribution and Mapping; Landslide: Causes, Impact, Distribution and Mapping; Drought: Causes, Impact, Distribution and Mapping
3. Disaster in India: (b) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; Cyclone: Causes, Impact, Distribution and Mapping; Manmade disasters: Causes, Impact, Distribution and Mapping
4. Response and Mitigation to Disasters: Mitigation and Preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management; Do's and Don'ts During Disasters.

Year-3

SEMESTER – V

Paper-19 GEOGC-11 Credits-6 Marks-100

Geography of India

1. Physical: Physiographic Divisions, soil and vegetation, climate (characteristics and classification)
2. Population: Distribution and growth
3. Economic: Mineral and power resources distribution and utilisation of iron ore, coal, petroleum, gas; agricultural production and distribution of rice and wheat, industrial development: automobile and Information technology
4. Social: Distribution of population by race, caste, religion, language, tribes and their correlates
5. Regionalisation of India: Physiographic (Spate and R. L. Singh), Socio – cultural (Sopher and A. Ahmed), Economic (Sengupta).

Paper-20 GEOGC-12 Credits-6 Marks-100

Remote Sensing and GIS (Practical)

1. Remote Sensing and GIS: Definition and Components, Development, Platforms and Types,
2. Aerial Photography and Satellite Remote Sensing: Principles, Types and Geometry of Aerial Photograph; Principles of Remote Sensing, EMR Interaction with Atmosphere and Earth Surface; Satellites (Landsat and IRS) and Sensors.
3. GIS Data Structures: Types (spatial and Non-spatial), Raster and Vector Data Structure
4. Image Processing (Digital and Manual) and Data Analysis: Pre-processing (Radiometric and Geometric Correction), Enhancement (Filtering); Classification (Supervised and Un-supervised), Geo-Referencing; Editing and Output; Overlays
5. Interpretation and Application of Remote Sensing and GIS: Land use/ Land Cover, Urban Sprawl Analysis; Forests Monitoring

Paper-21 GEOGDSE-1 Credits-6 Marks-100

Population Geography

1. Defining the Field – Nature and Scope; Sources of Data with special reference to India (Census, Vital Statistics and NSS).
2. Population Size, Distribution and Growth – Determinants and Patterns; Theories of Growth – Malthusian Theory and Demographic Transition Theory.
3. Population Dynamics: Fertility, Mortality and Migration – Measures, Determinants and Implications.
4. Population Composition and Characteristics – Age-Sex Composition; Rural and Urban Composition; Literacy.
5. Contemporary Issues – Ageing of Population; Declining Sex Ratio; HIV/AIDS.

Paper-22 GEOGDSE-2 Credits-6 Marks-100

Hydrology and Oceanography

1. Hydrological Cycle: Systems approach in hydrology, human impact on the hydrological cycle; Precipitation, interception, evaporation, evapo-transpiration, infiltration, ground-water, run off and over land flow; Hydrological input and output.
2. River Basin and Problems of Regional Hydrology: Characteristics of river basins, basin surface run-off, measurement of river discharge; floods and droughts.
3. Water Resource Problems and Management: water demand and supply, water quality, interstate water dispute, water Rights, institutional and financial constraints, eco-hydrological consequences of environmental degradation.
4. Ocean Floor Topography and Oceanic Movements – Waves, Currents and Tides.
5. Ocean Salinity and Temperature – Distribution and Determinants.
6. Coral Reefs and Marine Deposits and Ocean Resources: Types and Theories of Origin; Biotic, Mineral.

SEMESTER – VI

Paper-23 GEOGC-13 Credits-6 Marks-100

Regional Planning and Development

1. Definition of Region, Evolution and Types of Regional planning: Formal, Functional, and Planning Regions and Regional Planning; Need for Regional Planning; Types of regional Planning.
2. Choice of a Region for Planning: Characteristics of an Ideal Planning Region; Delineation of Planning Region; Regionalization of India for Planning (Agro Ecological Zones)
3. Theories and Models for Regional Planning: Growth Pole Model of Perroux; Growth Centre Model in Indian Context; Myrdal, Hirschman, Rostow and Friedmann; Village Cluster
4. Changing Concept of Development, Concept of underdevelopment; Efficiency-Equity Debate
5. Measuring development: Indicators (Economic, Social and Environmental)
6. Global Pattern of Development: inter-regional variations; Human development: International, interstate comparison of India.

Paper-24 GEOGC-14 Credits-6 Marks-100

Disaster Management based Project Work (Practical)

The Project work Report based on any two field based case studies among following disasters and one disaster preparedness plan of respective college or locality:

1. Flood
2. Drought
3. Cyclone
4. Earthquake
5. Landslides
6. Human Induced Disasters: Fire Hazards, Chemical, Industrial accidents

Paper-25 GEOGDSE-3 Credits-6 Marks-100

Urban Geography

1. Urban geography: Introduction, nature and scope; history of urbanisation
2. Patterns of Urbanisation in developed and developing countries
3. Functional classification of cities: Quantitative and Qualitative Methods
4. Urban Issues: problems of housing, slums, civic amenities (water and transport)
5. Case studies of Delhi, Mumbai, Kolkata and Chennai with reference to Urban Issues

Paper-26 GEOGDSE-4 Credits-6 Marks-100 Project Report

Introducing Research Component in Under-Graduate Courses

Project work/Dissertation is considered as a special course involving application of knowledge in solving / analyzing /exploring a real life situation / difficult problem. A Project/Dissertation work would be of 6 credits. A Project/Dissertation work may be given in lieu of a discipline specific elective paper.

For papers with practical: Theory-75 marks (Mid sem 15 +End sem 60), practical- 25 (End sem)

There will be no mid semester exam for practical papers.

For papers with no practical: 100 marks paper = 20 (Midsem) + 80 (End sem)

50 marks paper = 10 (Mid sem) + 40 (End sem)

Subjects with practical: Each of the 14 Core Courses ,4 Discipline Specific Elective Courses and 4 Generic Elective papers (100 marks each) will have minimum 40 theory classes of 1 hour duration and minimum of 10 tutorial classes (Normally practical classes at Hons level are of 2 hours duration each)

Subjects without practicals: Each of the 14 Core Courses, 4 Discipline Specific Elective Courses and 4 Generic Elective papers (100 marks each) will have minimum 50 theory classes of 1 hour duration and minimum 10 tutorial classes .Ability enhancement (compulsory) and 2 ability enhancement (skill based) papers will have minimum 20 classes each of one hour duration.

Core Course – CC,

Ability Enhancement Compulsory Course – AECC,

Skill Enhancement Course – SEC,

Discipline Specific Elective – DSE,

Generic Elective – GE,