

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

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



**Academic Session**

**2017 – 2020**

**CBCS - B.A. Geography (Hons) Syllabus**

**Website: <http://scscollege.nic.in/>**

## STRUCTURE OF THE SYLLABUS

### YEAR-1

Semester-I	Paper codes	Subjects	Marks	Credits
Core-1	GEOGC-1TH	Geomorphology	70	4
	GEOGC-1PR	Practical	30	2
Core-2	GEOGC-2TH	Cartographic Techniques	70	4
	GEOGC-2PR	Practical	30	2
AECC-1	GEOGAECC-1	(English /M.I.L Communication)/Environmental Science	50	2
GE-1	GEOGGE-1	Physical Basis of Geography	70	4
	GEOGGE-1PR	Practical	30	2
		<b>Total</b>	<b>350</b>	<b>20</b>

Semester-II	Paper codes	Subjects	Marks	Credits
Core-3	GEOGC-3	Climatology	70	4
	GEOGC-3PR	Practical	30	2
Core-4	GEOGC-4	Thematic Cartography	70	4
	GEOGC-4PR	Practical	30	2
AECC-2	GEOGAECC-2	Environmental Science/(English/M.I.L Communication)	50	2
GE-2	GEOGGE-2	Indian Geography	70	4
	GEOGGE-2PR	Practical	30	2
		Total	350	20

### Year-2

Semester-III	Paper codes	Subjects	Marks	Credits
Core-5	GEOGC-5	Environmental Geography	70	4
	GEOGC-5PR	Practical	30	2
Core-6	GEOGC-6	Economic Geography	70	4
	GEOGC-6PR	Practical	30	2

Core-7	GEOGC-7	Field Work and Research Methodology	70	4
	GEOGC-7PR	Practical	30	2
GE-3	GEOGGE-3	Physical basis of Geography	70	4
	GEOGGE-3PR	Practical	30	2
		Total	450	26
<b>Semester-IV</b>	<b>Paper Codes</b>	<b>Subjects</b>	<b>Marks</b>	<b>Credits</b>
Core-8	GEOGC-8	Evolution of Geographic Thought	70	4
	GEOGC-8PR	Practical	30	2
Core-9	GEOGC-9	Statistical Methods in Geography	70	4
	GEOGC-9PR	Practical	30	2
Core-10	GEOGC-10	Human Geography	70	4
	GEOGC-10PR	Practical	30	2
GE-4	GEOGGE-4	Indian Geography	70	4
	GEOGGE-4PR	Practical	30	2
		Total	450	26

### Year-3

Semester-V	Paper Codes	Subjects	Marks	Credits
Core-11	GEOGC-11	Geography of India	70	4
	GEOGC-11PR	Practical	30	2
Core-12	GEOGC-12	Remote Sensing and GIS	70	4
	GEOGC-12PR	Practical	30	2
DSE-1	GEOGDSE-1	Population Geography	70	4
	GEOGDSE-1PR	Practical	30	2
DSE-2	GEOGDSE-2	Hydrology and Oceanography	70	4
	GEOGDSE-2PR	Practical	30	2
		Total	400	24

<b>Semester-VI</b>	<b>Paper Codes</b>	<b>Subjects</b>	<b>Marks</b>	<b>Credits</b>
Core-13	GEOGC-13	Regional Planning and Development	70	4
	GEOGC-13PR	Practical	30	2
Core-14	Geogc-14	Disaster Management	70	4
	GEOGC-14PR	Practical	30	2
DSE-3	GEOGDSE-3	Urban Geography	70	4
	GEOGDSE-3PR	Practical	30	2
DSE-4	GEOGDSE-4	Project Report & Seminar	70 + 30	6
		Total	400	24

# **CBCS- BA GEOGRAPHY (HONS) SYLLABUS**

## **Year-1 Semester-I**

### **Paper- 1 GEOGC-1(Theory) Credits-4 Marks-70**

#### **GEOGRAPHY**

- UNIT – I: Nature, Scope & 5 fundamental concepts of geomorphology
- UNIT – II: Interior of the earth, Isostasy, Continental Drift 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- 30**

#### **Practical**

1. Determination of Latitude and Longitude, date and time.
2. Construction and use of Graphical scale RF Statement Scale, Diagonal Scale
3. Practical Record and Viva-Voce.

### **Paper- 2 GEOGC-2 (Theory) Credits-4 Marks-70**

#### **CARTOGRAPHY**

- 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 Diagrams.

### **Paper- 2 GEOGC-2 (Practical) Credits-2 Marks-30**

1. Cartograms –Complex bar, wheel diagram ,cube diagrams
2. Maps drawing –Dot maps, Choropleth maps
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-70**

### **PHYSICAL BASIS OF GEOGRAPHY**

- UNIT – I : Nature and Scope of Geography, Latitude, Longitude, Parallel of Latitude, Meridian, Date line, International Date line, GMT.
- UNIT – II: Interior of Earth, Rock and Mineral, Earthquake, Volcano, Fold & Fault.
- UNIT – III: Weathering, Mass wasting, Erosion, Land forms produce by River, Glacier, Wind
- UNIT – IV: Structure and Composition of Atmosphere, Elements and factors of climate.
- UNIT – V: Bottom configuration of Ocean, Composition of Sea Water, Salinity, Currents of Indian and Atlantic Ocean.

## **Paper-4 GEOGGE-1(Practical) Credits-2 Marks-30**

### **PHYSICAL BASIS OF GEOGRAPHY/ 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-70**

### **CLIMATOLOGY**

- UNIT – I: Atmospheric Composition and Structure. Insolation and Temperature – Factors of 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-30**

### **Practical**

1. Interpretation of weather map, Weather forecasting.
2. Drawing of Climograph and Hythergraph. Wind rose diagram.
3. Practical records and viva -voce

## **Paper-6 GEOGC-4 (Theory) Credits-4 Marks-70**

### **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 Equipments, 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 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, 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-30**  
**Practical**

1. Interpretation of Topographical Maps and Drawing of Profiles.
2. Drawing of Crosssection from Geological Maps and interpretation.
3. Construction of sphere and Block diagrams.
4. Practical records and viva -voce

**Paper-8 GEOGGE-2(Theory) Credits-4 Marks-70**  
**INDIAN GEOGRAPHY**

- UNIT – I: Unity in diversity, Physiographic divisions of India, drainage.
- UNIT – II: Factors affection climate, Mechanism of Indian Monsoon, Soils of India, Natural vegetation.
- UNIT – III: Growth and Development of Indian Agriculture, Problems and prospects, Production and Distribution of Rice & Wheat.
- UNIT – IV: Transport (Road & Railway), Industry (Iron & Steel, Cotton Textile)
- UNIT – V: Growth and distribution of Population, problems of population, Growth and factors of Urbanisation.

**Paper-8 GEOGGE-2(Practical) Credits-2 Marks-30**  
**PROJECT REPORT**

1. Selection of project topic for study of India
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-70**

#### **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 an management (land, air, water)
- UNIT – V: Man environment 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-30**

#### **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-70**

#### **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; Industrial location 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-30**

#### **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-11GEOGC-7 (Theory) Credits-4 Marks-70**

### **FIELD TECHNIQUES AND RESEARCH METHODOLOGY**

- UNIT – I: Various approaches to Geographic problems. Nature of Data – Areal data, Field Data. Kinds of Phenomena, Research Methodology – Formulating the problem and stating relationship, statement of Problem, Hypothesis and other relationships, Developing a research plan and preparing for Data collection, Collecting the data, analyzing the data, stating conclusion and reporting result.
- UNIT – II: Preparing for data collection – Purpose of preparatory procedures, Increasing Background knowledge, Making decision for the research plan, Measurement of field phenomena and sampling design, Commencing field arrangements - Techniques, evaluation and application.
- UNIT – III: Measuring field phenomenon – Nature of measurement, Levels of measurement, other aspects of measurements, measurement of visible phenomenon, measurement of non-visible phenomenon.
- UNIT – IV: Field Work in Geographical Studies – Role, Value and Ethics of Field-Work Use of Field Tools - Collection of Material for Physical and Socio-Economic Surveys.
- UNIT – V: 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), Designing the Field Report – Aims and Objectives, Methodology, Analysis, Interpretation and Writing the Report.

## **Paper-11GEOGC-7(Practical) Credits-2 Marks-30**

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The duration of the field work should not exceed 10 days.
3. The word count of the report should be about 8000 to 12,000 excluding figures, tables, photographs, maps, references and appendices.
4. Report in soft and hard copy and viva

## **Paper-13 GEOGGE-3(Theory) Credits-4 Marks-70**

### **PHYSICAL BASIS OF GEOGRAPHY**

- UNIT – I: Nature and scope of geography, Latitude, Longitude, Parallal, Meridian, date line, International date line, G.M.T
- UNIT – II: Interior of the earth, rock and minerals, Earthquake, Volcanoes, fold and fault.
- UNIT – III: Weathering, Mass Wasting, Erosion, landforms produced by river, glacier, wind.
- UNIT – IV: Structure and composition of atmosphere, Elements and factors of climate,
- UNIT – V: Bottom configuration of ocean, composition of sea water, salinity, currents of Indian Ocean, Atlantic Ocean

## **Paper-13 GEOGGE-1(Practical) Credits-2 Marks-30**

### **PHYSICAL BASIS OF GEOGRAPHY/ 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 – IV**

### **Paper-14 GEOGC-8 Credits-4 Marks-70**

#### **EVOLUTION OF GEOGRAPHICAL THOUGHT**

- UNIT – I: Paradigms in Geography
- UNIT – II: Pre-Modern – Early Origins of Geographical Thinking with reference to the Classical and Medieval Philosophies.
- UNIT – III: Modern – Evolution of Geographical Thinking and Disciplinary Trends in Germany, France, Britain, United States of America.
- UNIT – IV: Debates – Environmental Determinism and Possibilism, Systematic and Regional, Ideographic and Nomeothetic.
- UNIT – V: 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-30**

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 ,Orthographic)
5. Practical records and viva -voce

### **Paper-15 GEOGC-9(Theory) Credits-4 Marks-70**

#### **STATISTICAL METHODS IN GEOGRAPHY**

- UNIT – I: Use of Data in Geography: Geographical Data Matrix, Significance of Statistical Methods in Geography; Sources of Data, Scales of Measurement (Nominal, Ordinal, Interval, Ratio).
- UNIT – II: 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).
- UNIT – III: Sampling: Purposive, Random, Systematic and Stratified.
- UNIT – IV: Theoretical Distribution: Probability and Normal Distribution.
- UNIT – V: Association and Correlation: Rank Correlation, Product Moment Correlation, and Simple Regression.

### **Paper-15 GEOGC-9 (Practical) Credits-2 Marks-30**

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 Pearson product moment)
4. Drawing of regression line
5. Practical records and viva -voce

### **Paper-16 GEOGC-10(Theory) Credits-4 Marks-70** **HUMAN GEOGRAPHY**

- UNIT – I: Definition, Nature, Scope, Major Subfields, Contemporary Relevance.
- UNIT – II: Space and Society: Cultural Regions; Race, Religion and Language.
- UNIT – III: Population: Population Growth and Demographic Transition Theory, Application in India;
- UNIT – IV: Population Distribution; Population Composition (Age, Gender, Race and Religion).
- UNIT – V: 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-30** **Practical**

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

### **Paper-18 GEOGGE-4 (Theory) Credits-4 Marks-70** **INDIAN GEOGRAPHY**

- UNIT – I: Unity in diversity, Physiographic division of India, drainage
- UNIT – II: Factors affecting climate, Mechanism of Indian Monsoon, Soils of India, Natural vegetation.
- UNIT – III: Growth and development of Indian agriculture, problems and prospects, production and distribution of rice and wheat
- UNIT – IV: Transport (Road and Railway), Industry (Iron and Steel, Cotton textile)
- UNIT – V: Growth and distribution of population, problems of population, growth and factors of urbanization

### **Paper-18 GEOGGE-2 (Practical) Credits-2 Marks-30** **REPORT ON A PARTICULAR ASPECT OF INDIA**

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

## Year-3

### SEMESTER – V

#### **Paper-19 GEOGC-11(Theory) Credits-4 Marks-70**

#### **GEOGRAPHY OF INDIA**

- UNIT – I: Physical: Physiographic Divisions, Drainage
- UNIT – II: Climate, soil and vegetation.
- UNIT – III: Agriculture - Production and distribution of rice, wheat, cotton, sugarcane. Mineral and power resources - Distribution of iron ore, coal, petroleum,
- UNIT – IV: Industry – Production and distribution of iron and steel, aluminium, cotton textile
- UNIT – V: Population: Distribution and growth, rural –urban population, trends of urbanization.

#### **Paper-19 GEOGC-11 (Practical) Credits-2 Marks-30**

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-voce.

#### **Paper-20 GEOGC-12(Theory) Credits-4 Marks-70**

#### **REMOTE SENSING AND GIS**

- UNIT – I: Remote Sensing - Definition, Components, history and development, Platforms and types: Principles of Remote Sensing,
- UNIT – II: 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
- UNIT – III: GIS - Definition, Components, history and development, characteristics of data base system, G.I.S data structure - types (spatial and Non-spatial), Raster and Vector.
- UNIT – IV: 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;
- UNIT – V: Data input and editing, error and its sources, G.I.S. operation, project design and management, application of GIS.

#### **Paper-20 GEOGC-12(Practical) Credits-2 Marks-30**

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

## **Paper-21 GEOGDSE-1(Theory) Credits-4 Marks-70**

### **POPULATION GEOGRAPHY**

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

## **Paper-21 GEOGDSE-1(Practical) Credits-2 Marks-30**

1. Population projection by various method
2. Drawing of triangular diagram and Lorenz curve
3. Construction of compound and superimposed pyramids
4. Practical record and viva-Voce

## **Paper-22 GEOGDSE-2(Theory) Credits-4 Marks-70**

### **HYDROLOGY AND OCEANOGRAPHY**

- UNIT – I: 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.
- UNIT – II: River Basin and Problems of Regional Hydrology: Characteristics of river basins, basin surface run-off, measurement of river discharge; floods and droughts.
- UNIT – III: Ocean Floor Topography and Oceanic Movements – Waves, Currents and Tides.
- UNIT – IV: Ocean Salinity and Temperature – Distribution and Determinants.
- UNIT – V: Coral Reefs and Marine Deposits and Ocean Resources: Types and Theories of Origin; Biotic, Mineral.

## **Paper-22 GEOGDSE-2(Practical) Credits-2 Marks-30**

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

**SEMESTER – VI**  
**Paper-23 GEOGC-13(Theory) Credits-4 Marks-70**  
**REGIONAL PLANNING AND DEVELOPMENT**

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

**Paper-23 GEOGC-13 (Practical) Credits-2 Marks-30**

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

**Paper-24 GEOGC-14(Theory) Credits-4 Marks-70**  
**DISASTER MANAGEMENT**

- UNIT – I: Disasters: Definition and Concepts: Hazards, Disasters; Risk and Vulnerability; Classification
- UNIT – II: Disaster in India: (a) Flood: Causes, Impact, Distribution and Mapping; (b) Landslide: Causes, Impact, Distribution and Mapping; (c) Drought: Causes, Impact, Distribution and Mapping
- UNIT – III: Disaster in India: (a) Earthquake and Tsunami: Causes, Impact, Distribution and Mapping; (b) Cyclone: Causes, Impact, Distribution and Mapping; (c) Manmade disasters: Causes, Impact, Distribution and Mapping.
- UNIT – IV: Response to Disasters: Rescue, relief, reconstruction, planning, preparedness, mitigation, Indigenous knowledge and community based knowledge
- UNIT – V: Disaster Management; Do's and Don'ts during Disaster, Mechanism in India and Odisha.

**Paper-24 GEOGC-14 (Practical) Credits-2 Marks-30**  
**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-voce

## **Paper-25 GEOGDSE-3(Theory) Credits-4 Marks-70**

### **URBAN GEOGRAPHY**

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

## **Paper-25 GEOGDSE-3 (Practical) Credits-2 Marks-30**

1. Functional classification of towns
2. Delimitation of C.B.D
3. Delimitation of urban sphere of influence.
4. Practical Record and Viva-Voce

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

### **PROJECT AND SEMINAR**

**Project – 70 marks (Thesis/Dissertation: 40 marks + Presentation/ Viva-Voce: 30 marks)**

**Seminar – 30 marks**