KOLHAN UNIVERSITY, CHAIBASA

P.G. Department of Geography



Department of Geography

POSTGRADUATE COURSES OF STUDY

2017

CHOICE BASED CREDIT SYSTEM (CBCS)

MEMBERS OF BOARD OF STUDIES

- 1) Prof. (Dr.) J.P. Mishra, Dean Of Social Science, J. (213)
 Kolhan University, Chaibasa
- Dr. O.P. Mahto, Head, University Department of Geography, Vinoba Bhave University, Hazaribag. Subject Expert.
- 3) Dr. Emline Minz, Ex Head, University Department of Geography, Kolhan University, Chaibasa.
- 4) Dr.Prabha Xalxo, Head, University Department of Geography, Kolhan University, Chaibasa.
- 5) Dr. Aaley Ali, Head, Department of Geography. Karim City College, Jamshedpur.
- 6) Dr. Md. Reyaz, Department of Geography. Karim City College, Jamshedpur.

De77718 3

SCHEME FOR CBCS IN POSTGRADUATE GEOGRAPHY

Semester	Courses	Paper
Ĭ	FC (FC-1)	Computer Science (Computer Application in Geography)
	CC-1	History of Geographical Thought
	CC-2	Geomorphology
	CC (P)-3	Practical
11	SS (EC-1)	Research Methodology
	CC-4	Climatology
	CC-5	Regional Geography : India & Jharkhand
	CC (P)-6	Practical
111	CC-7	Oceanography
	CC-8	Settlement Geography
	(GE/DC) (EC-2)	Any one of the following:- i) Population Geography ii) Bio-Geography iii) Soil Geography
	EC (P)-3	Practical
1V	CC-9	Regional Planning & Development of India
	(GE/DC) (EC-4)	Any one of the following:- i) Social Geography ii) Urban Geography iii) Political Geography iv) Geography of Tourism &Transport
	EC (P)-5	Practical
	Project	Dissertation

perology John John Lining 719

First Semester - Total 20 Credits

FC Compulsory (FC-1)

COMPUTER SCIENCE (COMPUTER APPLICATION IN GEOGRAPHY)

CourseContents:

F.M.: 100

100(70+30)

Time: 3 Hours

Module-1

Computers: Definition, characteristics, Hardware & software; Number system; operating systems; introduction to DOS, WINDOWS, WORD & EXCEL; Computer & Geographic Data: Scale of Measurement, location Data and Data structure:

Module-2

Computers in Cartography: Hardware & Software for computer mapping; application of computer cartography, Simple exercise for representation of Geographical Data: Histogram, Bar Diagram, Line Graph, Multiple Line Graph, Scatter Diagram & Pie Diagram.

Module-3

Computation of Central Tendency Values; Quartile; Standard Deviation; 'r' Value & Trend Line, with the help of Computers.

Module-4

Importance of Information Technology in geographic studies; advantages of Internet, Browsing & Surfing the geographical sites; Web pages & downloading files.

Proping

Ady Als

Quin 19

Core Course Theory = 1 (CC-1) HISTORY OF GEOGRAPHICAL THOUGHT

Course Contents:

F.M. :

 $100(70 \pm 30)$

Time:

3 Hours

Module-1

The Field of Geography: Its place in the classification of sciences, geography as social science and natural science.

Selected concepts in the philosophy of geography: Logical positivism, Areal differentiation and spatial organization.

Module-2

Dualism in Geography: Physical Vrs Human Geography, Systematic Vrs Regional Geography, Determinism Vrs Possibilism.

the quantitative revolution, behaviourism, post modernism, Faminism,

Module-3

Regional Geography: Concepts of region, Regionalization and the regional methods.

Historical Development: Contributions of different scholars during Ancient, Medieval and Modern period.

Module-4

Geography in the 20th Century: Concept and methodological developments, Status of Indian geography.

Future of geography, Radical geography; geographical thought with reference to changing views on man-environment relationship. Geography and public policy.

fraging

Ady Mi 1227-19

5 - 1 Mary 19

Core Course Theory - 2 (CC-2)

GEOMORPHOLOGY

Course Contents:

F.M. :

100(70 + 30)

Module-1

Nature and scope of geomorphology, fundamental concepts, geological structures and landforms.

Regional geomorphology of peninsular India, Ganga plains, Chhotanagpur plateau and west coastal plains.

Module-2

Earth movements: Epeirogenic, Orogenic and Cymatogenic Earth movement, Isotasy, Plate Tectonics.

Seismicity: Vulcanicity, orogenic structures with reference to the evolution of Himalaya.

Module-3

Exogenetic Processes: Concepts of gradation, agents and processes of gradation, causes, and classification of weathering.

Mass movement, erosional and depositional processes and resultant landforms, slope evolution, down wearing, parallel retreat.

Module-4

Dynamics of fluvial, glacial, Aeolian, marine and karst processes and resulting landforms.

Applied geomorphology, application geomorphic mapping, environmental geomorphology, geomorphic hazard.

Ady Mi

Eluin 19

First Semester

Core Course Practical [CC (P)-3]

Time: 6Hrs.

F.M. -100

The syllabus for practical is divided into two sections: Section - 'A' and 'B'.

The Practical examination including field work examination of six hours of duration.

SECTION - 'A'

Time: 3Hrs.

F.M. -50

- Scope purpose, and Importance of field instruments survey: Principle and applications of selected survey instruments, plane table resection, two point and three point problems, tracing paper method. {15Marks}
- Prismatic compass; open and closed traverse, elimination of error-Bowditch Method.
 {15Marks}
- Viva-Voce

{10Marks}

4) Practical Note Book

{10Marks}

SECTION - 'B'

Time: 3Hrs.

F.M. -50

Field Work (Project Report) - 50
Allotted by Departmental Council (Any part of Jharkhand region)

Objectives:

The main objective of the field work (Physical) to conduct an extensive survey of a continuous wider region and identify salient landforms, their genesis and their impact on human life, flora and fauna.

On 12:7:19

Meyon

AdigAlia.

Errin 19

Course Contents:

- To trace the prominent features of the area to be surveyed, identify salient landforms feature of the selected area on a topographical sheet.
- To identify the landforms on the surface while in the field. Also note the agents of erosion, transportation and deposition associated with the landforms.
- To identify the classify the biodiversity in the area (flora &fauna)
- 4) To observe the relationship of various landforms, with land use, settlement structure and life style of people.
- 5) Based on observations of the above characteristics prepare a field survey report. The report need to be supplemented with maps, sketches, photographs etc.

5

Ady Ahi

19 Quin 7 19

Second Semester - Total 20 Credits

Elective Course Theory (SE) (EC-1)

RESEARCH METHODOLOGY

F.M.: 100 (70 +30)

Module-1

Methods of Geographical Research; Meaning of Research, Objectives Motivation.

Module-2

Research Approaches: Conceptual and Empirical; Descriptive and Analytical; Quantitative and Qualitative;

Module-3

Research methods V/s. Research Methodology; Hypothesis, theories, laws and models; Research Idea and Research question, Literature Review; significance of research; Research design: Data collection and analysis; Deciding the methods.

Module-4

Research findings: Writing Essays, Reports and Dissertations (Report writing and presentation); Understanding Assessment; Scientific journals (impact factor, citation); Using Research Results; Ethical Issues in Social Research; Criteria of good research; problems encountered by researchers in India.

Ju ///29/92

Ashy Al. Pro 12.7.19

Second Semester

Core Course Theory - 4(CC-4)

CLIMATOLOGY

Course Contents:

F.M. :

100(70 + 30)

Module-1

Nature and scope of climatology and its relationship with meterology, composition and structure of the atmosphere.

Insolation, heat balance of the earth, Green house effect, vertical and horizontal distribution of temperature, local winds, jet streams, general circulation in the atmosphere.

Module-2

Tropical, temperate and high latitudes weather system,-concept of Air mass and atmospheric disturbances. Cyclones-tropical and temperate. Stable and Unstable atmosphere: environment lapse rate, dry and wet adiabatic lapse rate and atmospheric stability.

Ocean-atmosphere interaction-El Nino, Southern Oscillation (ENSO) and La Nina, Monsoon winds, Norwesters.

Module-3

Climatic classification of Koppen and Thornthwaite

Climate Changes: Evidences, possible causes

Applied Climatology : Climate, Hydrology and Water Resources;

Nature of Urban Micro climate and global environmental change: The nature of the urban climates, Urban Heat Island (UHI), Impact of the urban climate on Global Environment Change (GEC).

Module-4

Global Warming, environmental impacts and society's response, Atmosphere effect of thunders, Thunderstorms and Droughts, Climatic Impact Assessment.

m /// Leun

202019 12 Jaly Ali 219 Emin 198

Second Semester

Core Course Theory - 5(CC-5)

REGIONAL GEOGRAPHY: INDIA AND JHARKHAND

Time: 3Hrs.

F.M. :

100 (70 +30)

SECTION - 'A' (INDIA)

Course Contents:

Module-1

Physical framework and geological formations. Climatic and vegetation regions, Agro-climatic regions and Industrial regions.

Macro-Regions: Genesis and changing profile, Geography and federalism, Indian Federalism, Reorganization of state.

Module-2

Minerals and power resources, population Development environment interface, policies and programmes.

Case studies of Macro/Micro regions.

(a) Middle Ganga Plain,

(c) National Capital Region(NCR)

(b) Chhotanagpur Region

SECTION - 'B' (JHARKHAND)

Module-3

Physical basis of Regionalization and Human Resources.

Economic and Inter-linkages-mineral resources, (Iron ore, manganese, lime stone) Agriculture Landscape and industrial region.

Module-4

Population Development-environment interface, policies and programs.

Urbanization, prospects and problems of tourism in Jharkhand

Ady 127-19.

Enin? 19

Second Semester

Core Course Practical [CC (P)-6]

Time: 6Hrs.

F.M. -100

The syllabus for practical is divided into two sections: Section – 'A' and 'B'. The Practical examination including field work examination.

SECTION - 'A'

Course Contents:

 Geological maps, construction of sections and interpretation. Methods of representing and mapping of population data. Profiles-serial, projected, super-imposed and composite (on the basis of Topographical sheets)

{15Marks}

 Mercator's Sinusoidal, Galls projection Mollweide's projection, International Map Projection.

{15Marks}

- Interpretation of Topographical sheets: Relief, Drainage, Vegetation,
 Settlement, Transportation and Communication/ (15Marks)
- Practical Note Book & Viva-Voce

{25Marks}

SECTION - 'B'

Survey by selected Instruments:

Course Contents:

5) Dumpy level, Sextant, Abney level and Indian Clinometers, Field work filling by level, Determination of height by Sextant. Slope determination of Hill side (Area allotted by the HOD) {2 × 15=30 Marks}

Or ///20433

Adj Ali 127.19

Quin? 19

Third Semester - Total 20 Credits

Core Course Theory – 7 (CC-7)

OCEANOGRAPHY

Time: 3Hrs.

F.M. :

100 (70 +30)

Course Contents:

Module-1

Nature and scope of Oceanography, History of Oceanography, Origin of ocean basin, Major features of Ocean basin, relief of Indian ocean.

Module-2

Physical and chemical properties of sea water (density,temperature,salinityetc.), Ocean currents, Wave and Tides.

Module-3

Marine Biological Environment, Types of Organisms; Plankton, Nekton and Benthos, Major marine environments-Coastal, Estuaries, Delta and Deep pelagic environment.

Module-4

Marine deposits and resources, Coral reefs, human impact on the marine environment. Climatic and eustatic changes.

or 1/1/0433,9

Jaly 14 (27) 19 Emin 19

Third Semester

Core Course Theory - 8 (CC-8)

SETTLEMENTGEOGRAPHY

Time: 3Hrs.

F.M. :

100 (70 +30)

Module-1

Evolution and growth of human settlement, Theories of evolution of Settlements; Spatial and temporal trends in size and growth of settlements.

Spatial distribution: Pattern and types of Rural settlements; Theoretical models (Nearest Neighbour and Gravitational model).

Module-2

Structure of Settlements: Morphological structures of cities, Emperical and theoretical models (Burgess, Hoyt and Harris & Ullman). Functional classification of urban centers.

City region and rural-urban fringe.

Module-3

Functional typology of villages; Social, Economical, Cultural factors influencing the dynamics of settlement structure. Settlement hierarchy: Theories of Christaller and Losch (CPT) and their application to settlement hierarchy. Factors contributing to settlement hierarchy. Measurement of centrality and hierarchy.

Module-4

Issues, Perspectives and Policies on population and human settlements. Interface between human settlements and environment. Contemporary urban issues: Urban renewal, urban sprawl, slums, green belts, garden cities. Transformation and planning of IndianVillage.

Or Meyon

Achy 127.19 &

Third Semester

Elective Course Theory (GE/DC) (EC-2) (Student can opt one of the following paper)

i) Population Geography

ii) Biogeography

iii) Soil Geography

Time: 3Hrs.

F.M. :

100 (70 +30)

POPULATION GEOGRAPHY

Course Contents:

Module-1

Population Geography: Scope, objective and: Development of population geography as a field of specialization; Population Geography and Demography.

Sources of population data; their level of reliability and problems of mapping of population data; Census process of major countries.

Module-2

Population Distribution: Density and growth, world patterns and their determinants; India: Population distribution, density and growth profile.

Population Dynamics: Demographic transition theories, Measurements of fertility and mortality, Migration: National and International patterns.

Module-3

Population Composition: Age and sex, literacy, religion, caste and tribes, rural and urban; Occupational structure in India.

Trends of Urbanization in India, Problems of Urbanization.

Module-4

Population and development: Population-Resources region and level of population and socio-economic development, concepts of under population, over population and Optimum population.

India's population policies, population and environment, implications for the future. Importance of research in Population Geography.

On 11/2019

May 14 27 19 Emin 2 19

Third Semester Elective Course Theory (GE/DC) (EC-2)

Time: 3Hrs.

F.M-100 (70+30)

BIOGEOGRAPHY

Course Contents:

Module-1

Scope and development of Biogeography, Environment, Habitat and Plantanimal association, biome types.

Module-2

Elements of Plant geography, distribution of forests and major communities. Plant successions in newly formed landforms. Examples from flood plains and glacial fore fields.

Module-3

Zoogeography and its Environmental Relationship, Environmental Management and Programme, and Environmental Policies.

Module-4

Palaeobotanical and Palaeo climatological records of environmental change in India. National Forest Policy of India. Conservation of Biotic Resources.

On 11/209/93

Aly 14' 22 19 Ering 1327 19

Third Semester Elective Course Theory (GE/DC) (EC-2)

Time: 3Hrs.

F.M-100 (70+30)

SOIL GEOGRAPHY

Course Contents:

Module-1

Nature, scope and significance of Soil Geography, its relationship with Pedology. Soil forming factors: Parent material, organic, climatic, topographic, Spatio-temporal dimensions. Processes of soil formation and soil development: Physical, biotic and chemical. Soil Profile: development; Soil catena, Pedogenic regims; podzolization, laterisation, caldification and gleezation.

Module-2

Soil organisms, macro-animals (earthworms, sowbugs, mites, centipedes, rodents and insects), Microanimals and plants – Nematodes, Protozoa rotifers; fungi, bacteria, algae and actinomyces.

Module-3

Physical properties of soils: morphology, texture, structure, water, air, temperature and other properties of soil; Chemical properties of soil and soil reaction; Genetic classification of soils, Taxonomic classification of soils zonal, a zonal and intra-zonal soils, their characteristics and world patterns. Soil erosion, degradation and conservation.

Module-4

Evaluation of land and soil: Parametric and non-parametric systems Land capability classification, Soil survey, modern techniques, field study of soil profile and their characteristics. Soil reclamation and managements: Soil survey and landforms in environmental managements; Integrated soil and water management; Sustainable development of soil resources with reference to India.

Or 1// Leyon

Achypaly, 822

Quin 19

Third Semester

Elective Course Practical [EC (P)-3]

Time: 3Hrs

F.M. -100

Module-1

30Marks

- 1) History and Technique of Cartography.
- 2) Source of Data Collection

Module-2

30Marks

- 1) Population Diagram
- 2) Economic Diagram
- Climatic Diagram

Module-3

20Marks

 Modern Technique in Geography – GIS, Remote Sensing and Air Photography.

Module-4

20Marks

- 1) Practical Note Book
- 2) Viva-Voce

Or 1/1/2/95

Ady Ali

Quin 7.19

Fourth Semester - Total 20 Credits Core Course Theory - 9 (CC-9)

REGIONAL PLANNING AND DEVELOPMENT OF (INDIA)

Time: 3Hrs.

F.M. - 100 (70 + 30)

Module - 1

Regional concepts in Geography, Merits and limitations for application to regional planning and development delineation of different types of regions and their utility in planning, planning processes: sectoral, temporal and spatial dimensions, short-term and long-term perspective planning.

Module - 2

Types of region: Formal and Functional, Uniform and Nodal, Single purpose and Composite region in the contest of planning, Physical regions, resource regions, special purpose region-river valley regions, Metropolitan regions.

Module - 3

Planning for region's development; Regions hierarchy, Multi-level planning in national context; decentralized planning; people's participation in planning.

Module - 4

Indicators of development and their data sources, Measuring levels of regional development and disparities – a case study of Jharkhand, Regional development in India – problems and prospects.

Or 1/2:7:19

Adysti 12.7-19 Quin 7.19

Fourth Semester Elective Course Theory (GE/DC) (EC-4) (Student can opt one of the following paper)

i) Social Geography iii) Political Geography

ii) Urban Geography & Planning iv) Geography of Tourism & Transport

Time: 3Hrs. F.M.: 100 (70 +30)

SOCIAL GEOGRAPHY

Course Contents:

Module-1

Nature and development of social geography, philosophical bases of social geography-Positivits; structuralist; racial, humanist, post-modern and post structuralist; social geography in the realm of social sciences.

Module-2

Space and Society: Understanding society and its structure and process; geographical bases of social formations; contribution of social geography to social theory, power relations and space.

Module-3

Towards a social geography of India; Social differentiation and region formation; evolution of socio-cultural regions of India; bases of social region formation; role of race, caste, ethnicity; religion and languages; Indian unity and diversity; social transformation and change in India.

Module-4

Socialwell-being: Concepts of social well-being, physical quality of life, Human development; measurement of human development with social, economic and environmental indicators; Rural urban deprivation in India with respect to health care; education and shelter; deprivation and discrimination issues relating to women and under privileged groups, patterns and bases of rural and urban society.

Public policy and social planning in India; review of Five year Plans and area plans towards social policy in India; Strategies to improve social well-being in tribal, hill, drought and flood prone areas; Social and environmental impact assessment of development projects.

Or // Mouses Adyptic

Enin 7.19

Fourth Semester Elective Course Theory (GE/DC) (EC-4)

Time: 3Hrs.

F.M. :

100 (70 +30)

URBAN GEOGRAPHY AND PLANNING

Course Contents:

Module-1

<u>Bases:</u> Meaning and scope of Urban Geography, Recent trends in urban Geography, Processes and pattern of Urbanization, Origin and evolution of urban settlements, Geographical approaches to the study of Urbanization.

Module-2

<u>Characteristics:</u> of cities in different historical period with special references to India. Definition of Urban places and areal classification of urban places on the basis of size and function, Functional classification of towns.

Module-3

Spatiality and models: Size and spacing of cities: Rank size rule, law of Primate City, Nearest Neighbor Analysis; City region; Rural urban fringe, Central Place Theory of Christaller and Losch; Theories of internal structure of cities (Burgess, Hoyt and Harris & Ullman).

Module-4

Urban Issues and Planning; Urban problems-Environment, Urban poverty, Slums, Transportation, Housing, Crime. Meaning and concepts of urban planning, Components of urban planning;

<u>Planned City-Chandigarh & Jamshedpur</u>, Master Plan, the urban planning administration in India; The town and country planning organization (TCPO), New trends in urban planning, National Urban Policy.

Or //20192

AdyMi 219

Quin 7.19

Fourth Semester Elective Course Theory (GE/DC) (EC-4)

Time: 3 Hrs. F.M.: 100 (70 + 30)

POLITICAL GEOGRAPHY

Course Contents:

Module-1

Nature, scope, subject matter and recent development in political geography, approaches to study; major schools of thought.

Module-2

Geographic Elements and State: Physical Elements; Human elements; Economic elements; Political Geography and environment-interface.

Module-3

Themes in Political Geography; State, Nation, Nation-State and Nation-building, Frontiers and boundaries, Colonialism, decolonization, Neocolonialism, federalism and other forms of governance. Changing patterns of World Powers Perspectives on core-periphery concept, Conflicts and cooperation.

Module-4

Geopolitical significance of Indian Ocean: Political geography of any one of the following regions: SAARC Region, South-East Asia, West Asia, East Asia, European Union.

Political geography of contemporary India with special reference to: The changing political map of India, Unity in diversity: Centripetal & centrifugal forces; stability & instability' Interstate issues (like water disputes & riparian claims) and conflict resolutions insurgency in border states; Emergence of New States: Federal India: Unity in Diversity.

Note: The region may also be selected from the regions not referred to above, depending on the expertise available with the Department.

Jely 14 (2)

Fourth Semester Elective Course Theory (GE/DC) (EC-4)

Time: 3 Hrs.

F.M.: 100(70+30)

GEOGRAPHY OF TRANSPORT AND TOURISM

Course Contents:

Module-1

Nature, Scope, Significance and Development of Transport Geography, Factors associated with the development of transport system, Physical Economic, Social, Cultural and Institutional, Technological, Role of transport in regional development

Module-2

Transport policy and planning, transport development in developing countries, urban transportation, Growth and problems of urban transportation, Transport and environment degradation, Vehicular pollution and congestion, Alternatives to transport system in Mega cities of India. National highway development and planning in India.

Module-3

Basis of tourism, Definition of tourism, Factors influencing tourism, Historical, Natural, Social, Cultural and Economical. Motivating factors for pilgrimages, leisure, Recreation, elements of tourism as an Industry, Geography of tourism, its spatial affinity, Areal and Locational dimension comprising physical, cultural, Historical and Economical, Tourism types; eco-ethno' Coastal and adventure tourism, National and International tourism, Globalization and tourism.

Module-4

Tourism circuits, short and longer detraction, international, and Indian hotel industry, Impact of tourism, Physical economic and social perceptional, positive and negative impacts, Environmental laws and tourism, current trends spatial pattern and recent changes, Role of foreign capital and impact of globalization on tourism.

Ashy Ali.

Chin 7.19

Fourth Semester

Elective Course Practical [EC (P)-5]

TOTAL MARKS - 100

SECTION - 'A'

Time: 3Hrs.

F.M. -50

Course Contents:

Module - 1 (any one of the following) -

10Marks

- 1) Ogive
- 2) LorenzCurve
- 3) BandGraph

Module – 2 (any one of the following)

10Marks

- 1) Triangular Diagram
- 2) Block Pile
- 3) Population Projection

Module - 3 (any one of the following)

10Marks

- 1) Population potential
- 2) Spheres
- 3) Dispersion

Module-4

20Marks

- 1) Practical Note Book
- 2) Viva-Voce

SECTION - 'B'

Time: 3Hrs.

F.M. -50

Course Contents:

A Study Tour / Project Report on a relevant topic related to Elective Course (GE/DC) (EC-4) paper (to be approved by the department HOD)

PAN 19 11/04/02

Aelything.

Fourth Semester

DISSERTATION

Total Marks - 100

Pass Marks - 45

Guidelines to Examiners for

End Semester Examination (ESE):

Overall project dissertation may be evaluated under the following heads:

- Motivation for the choice of topic
- Project dissertation design
- Methodology and Content depth
- Results and Discussion
- Future Scope & References
- · Participation in Internship programme with reputed organization
- Application of Research technique in Data collection
- Report Presentation
- Presentation style
- Viva-voce

DISSERTATION

Each student has to submit two copies of the dissertation work duly forwarded by the HOD of Department concerned. The forwarded copies will be submitted in the Department of Geography, Kolhan University, for evaluation (Fifteen days before the seminar).

The paper will consist of

- (a) Field work/Lab work related to the project.
- (b) Preparation of dissertation based on the work undertaken.
- (c) Presentation of project work in the seminar on the assigned topic in the P.G. Department of Geography, Kolhan University, Chaibasa& open viva there on.

Topics

Different topics will be allotted to each student under a supervisor (Faculty member of the department).

NB:-Students will select topics for the project work in consultation with a teacher of the department. The Seminar will be held in the Department of Geography. Kolhan University, Chaibasa.