### KOLHAN UNIVERSITY, CHAIBASA

P.G Department of Geography



# Department of Geography Post Graduate Courses of Study

2020

# Under CHOICE BASED CREDIT SYSTEM (CBCS)

#### MEMBERS OF BOARD OF STUDIES

- 1. Dr. Prabha Xalxo, Head & Dean, University Department of Geography and Faculty of Social Sciences, Kolhan University, Chaibasa.
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- 5. Dr. Aaley Ali, Head, Department of Geography, Karim City College, Jamshedpur.
- 6. Dr. Md. Reyaz, Department of Geography, Karim City College, Jamshedpur.

### **SCHEME FOR CBCS IN**

### **POST GRADUATE GEOGRAPHY**

Semester	Course	Paper
Semester		•
	Core Course-1 (CC0101	History of Geographical Thought
	Core Course-2 (CC-102)	Geomorphology
	Core Course-3 (CC-103)	Geography of Resource and
		Development
	Core Course-4 (CC-104)	Geographic Information System and
		Remote Sensing
	Core Course (P) -5	Practical
	[CC(P) -105]	
	Core Course -6 (CC-201)	Climatology
	Core Course-7 (CC-202)	Regional Geography : India and Jharkhand
	Core Course -8 (CC-203)	Economic Geography
	Core Course-9 (CC-204)	Environmental Geography
	Core Course (P) – 10	Practical
	[CC(P)-205]	
	Core Course -11 (CC-301)	Oceanography
	Core Course-12 (CC-302)	Settlement Geography
	Discipline Specific	Any one of the following :-
	Elective -1 (DSE-301)	i) Population Geography
		ii) Agricultural Geography
		iii) Regional Geography of the world
	Discipline Specific	Practical
	Elective -2 [DSE(P)-302]	
	Project (PR) -1 [PR-301]	Inter_Disciplinary Research Methods
		and Techniques Dissertation /Project.
	Core Course -13 (CC-401)	Regional Planning and Development
	Core Course -14 (CC-402)	Urban Geography and Planning
	Discipline Specific	Any one of the following :-
	Elective -3 (DSE-401)	i) Social and Cultural Geography
		ii) Soil and Bio-Geography
		iii)Geography of Transport and Tourism
	Discipline Specific Elective	Practical
	(P)-4 [DSE (P)- 402]	
	Project (PR)-2 (PR-401)	Dissertation /Project

#### First Semester - Total 22 Credits

#### Core Course Theory – 1 (CC-101)

#### HISTORY OF GEOGRAPHICAL THOUGHT

**Course Contents:-**

F.M.: 100 (70+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 20<sup>th</sup> 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.

- 1. Holt Jensen Arild (1999), Geography, History and Concepts, Sage Publications, London, thousand Oaks, Delhi.
- 2. Harvey, D (1969): explanation in Geography, London, Amold.
- 3. Hartshorne R (1939): The Nature of Geography, Association of American Geography.
- 4. Haggett, P. and A.D. cliff and A Frey (1977): Locational analysis in Human Geography, London: Arnold.
- 5. Husain Majid (2004): Evolution of Geography thought Rawat Publications, Jaipkur.
- 6. Maurya S.D. (2013): History of Geographical thought Sharda Pustak Bhawan, Allahabad./
- 7. Singh D.P. (2007): Bhowgolik Chintan Ki Samikcha, Sharda Pustak Bhawan, Allahabad. (Appraisal of Geographical thought)
- 8. Jain S.M. (2004): Bhowgolik Chintan Awam Viditanter Geographical thoughts and Mythology) Sahitya Bhawan Publications, Agra.
- 9. Adhikari Sudeepta (2011): Fundamental of Geographical thought: Chaitanya Publishing House, Allahabad.

#### **First Semester**

#### Core Course Theory – 1 (CC-102)

#### **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 plain, Chhotanagpur plateau and west coastal plains.

#### Module - 2

**Earth movements :** Epeirogenic, Orogenic and Cymatogenic Earth movement, Isostasy, 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 of geomorphic mapping, environmental geomorphology, geomorphic hazard.

- 1. Singh Savindra (2012): Geomorphology, Prayag Pustak Bhawan, Allahabad.
- 2. Sharma V.L.: Geomorphology earth surface processer and forms, Tata MC Graw Hill publishing Company Limited, New Delhi.
- 3. Thornburg William D. (2004): Principles of Geomorphology, CBS Publishers & Distributers, New Delhi.
- 4. Dayal P. (1992): Bhu-Akriti Vigyan; Shukla Book Dipo, Publishers, Patna-4.
- 5. Ahmad Enayat (2004) : Geomorphology, Kalyani Publishers, New Delhi.
- 6. Gautam Alka (2009) : Geomorphology, Shrada Pustak Bhawan Publishers, Allahabad.
- 7. Prasad Gayatry (2012): Bhu-Akriti Vigyan, Sharda Pustak Bhawan Publishers, Allahabad.
- 8. Sharma Hari Shanker & Kumar Pramila (1997): Bhu-Akriti Vigyan, Madyapradesh Hindi Granth Academy, Bhopla.
- 9. Sharma H.S. & Kale V.S. (2011): Geomorphology in India, Prayag Pustak Bhawan, Allahabad.

#### **First Semester**

#### Core Course Theory – 3 (CC-103)

#### GEOGRAPHY OF RESOURCE AND DEVELOPMENT

Course Contents :- F.M. : 100 (70+30)

Time: 3 Hrs

#### Module - 1

Resource: Meaning definition and scope of Resource Geography, Concept of Resource as related of Economics, Technological & cultural development, classification of resources.

#### Module - 2

Resource appraisal: Biotic (Forest, Live Stock, Fisheries, Agricultural Crops), Abiotic (Land, Water, Mineral, Energy), Population and biodiversity, development of Resources and Economic Development, Resource conservation and management.

#### Module - 3

Population pressure on resources, resource based theories of population growth, Carrying Capacity, Present status of population, Population Resource Regions, Population Policies.

#### Module - 4

Concept of sustainable development parameters of sustainable development, Approaches to the study of sustainable development issues and challenges of sustainable development.

- 1. A. Mitra: Resource Studies, Kolkata 2016.
- 2. Gautam Alka: Geography of Resources, exploitation, conservation and Management, Allahabad 2013.
- 3. Negi Singh Balbir: Geography of Resource, Meerut 2000.
- 4. Kaushik S.D. & Gautam Alka : Sansadhan Bhoogol (Geography of Resource), Meerut 2003.
- 5. Negi B.S.: Sansadhan Bhoogol (Geography of Resource, Meerut 1995)
- 6. Rao B.P.: Sansadhan Aur Arya ...... (Resource & Environment) Geography 2006.
- 7. J.L. Holecheek Ct. Al.: Natural resources, Economics and Policy, Prentice Hall, New Jersey-2000.
- 8. D.J. Mc. Laren and B.J. Sbinnet (Eds): Resource and world development, John wile y and sons, New York 1986.

Quality

#### **First Semester**

#### Core Course Theory – 4 (CC-104)

#### GEOGRAPHICAL INFORMATION SYSTEM AND REMOTE SENSING

Course Contents :- F.M. : 100 (70+30)

Time: 3 Hrs

#### Module - 1

Remote Sensing: Meaning, Definition & Scope, Historical development of remote Sensing, relevance of Remote Sensing in Geographical studies, process of remote sensing, Electromagnetic Energy, Interaction and mechanism with atmosphere and Earth surface, Remote sensing Platforms & sensors. Indian space Programme.

#### Module - 2

Satellite Remote sensing: Important Remote Sensing Satellite & their Characteristics, Satellite Data Acquisition, Geometric & Radiometric collection of Data, Satellite and Sensors, spectral Reponses of earth surface feature, visual interpretation of satellite images, application of Remote Sensing in geographical studies.

#### Module - 3

Geography & Geographical information system: Definition & development of GIS, Elements of GIS, Spatial Data, Elements & types of spatial Data, GIS Data format for computer environment, Raster & Victor Data, Structure, Data Conservation, GIS Technology, Map projection & cartography, coordinate system, Data Input, Storage and editing into GIS, Basic Principles of Computer assisted cartography.

#### Module - 4

GIS Database: Creation of Spatial & Non Spatial Data base, Data base management system, Data integration & analysis in GIS, Spatial Modeling, Digital Elevation Models (DEM), integration of GIS with Remote sensing & Global Positioning system (GPS), Application of GIS & Modern trends in GIS.

Quahla

- 1. Chaunil, D.D. (2004): Remote Sensing and Geographical information system (In India), Sharda Pustak Bhawan, Allahabad.
- 2. Campell, JB.B. (2003): Introduction to Remote sensing year Book, Laylor and Prancis, London.
- 3. Cracknell and Laron, H (1990); Remote sensing year Book Laylor and Prancis, London.
- 4. Deebshatulu, B.L. and Rajan Y.S. (ed.) (1984): Remote sensing Indian academy of science, Banglore.
- 5. Cu rra n P.I. (1985) Principles of Remote Sensing Longman, London.
- 6. Josep G. 20063; Fundamentals & Remote Sensing University Press, Hyderabad.
- 7. Singh R.B. (ed.), 1991: Environment Monitoring, Application of Remote sensing and GIS, Geocart intently, Hongkon.
- 8. De mers, Mehael N. 1999: Fundamentals of geographic information system, Jhon Wiley & Son, New York.



#### First Semester

#### **Core Course (P) -5 [CC(P)-105]**

#### **PRACTICAL**

Time: 6 Hrs. 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: 3 Hrs. F.M.: 50

- 1) Scope purpose, and Importance of field instruments survey: Principal applications of selected instruments, plane table resection, two point and three point problems, tracing paper method. (15 Marks)
- 2) Prismatic compass; open and closed traverse, elimination of error-Bowditch's Method. (15 Marks)
- 3) Viva Voce (10 Marks)
- 4) Practical Note Book (10 Marks)

#### SECTION -'B'

Time: 3 Hrs. F.M.: 50

## Field Work (Project Report) – 50 Allotted by Department Council (Any part of Jharkhand Region)

#### **Objectives:**

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

Quahla

- 1. Morphousi F.J. and Wilkinson H.R. (1989); Maps and Diagrams, B.I,. Publications, New Delhi.
- 2. Saha Pijustbanti & Basu Parth (2011) : Advanced Practical Geography, Books & Allied (P) Ltd., Kolkata.
- 3. Singh Gopal: Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
- 4. Singh R.L. & Sigh Rana P.B. (2002): Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 5. Sharma JP., (2004): Prayogik Bhugol: Rastogi Publications Meerut.
- 6. Sarban Ashis (2016): Practical Geography a Systamatic Approach, Orient Black Swan Pvt. Ltd. Hyderabad.
- 7. Singh R.L. & Singh P.B. (2013) Prayogatmak Bhugol Ki Mul Tatwa, Kalyani Publishers, New Delhi.
- 8. Kanetbar and Kulkarni: Surveying and Leveling, Part VI, II

#### SECOND SEMESTER

#### Core Course Theory – 6 (CC-201)

#### **CLIMATOLGOY**

#### **Course Contents:-**

F.M.: 100 (70+30)

#### Module - 1

Nature and scope of climatology its relationship with meteorology, compositions 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, temperature 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 –EI-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.

- 1. Critchfield H.J. (1979/1988): General Climatology, Prentic Hall, New Delhi.
- 2. Lal D.S. (1993/2004): Climatology, Chaitanya Publishing House (Hindi & English), Allahabad.
- 3. Singh Svindra (2002): Climatology, Prayag Publishing House (Hindi & English), Allahabad.
- 4. Kumar Amit (2011) : Jalvayu Vigyan, Vishva-Bharti- Publications New Delhi.
- 5. Miller A. Austin (1979): Climatology, B.I. Publications, New Delhi.
- 6. Gautam Alka (2003-04): Jalvayu Evam Samudra Vigyan, Rustogi Publications, Meerut.
- 7. Negi B.S.: Climatology and Oceanography, Kedar Nath Ram Nath Publications, Meerut.

Quahle

#### SECOND SEMESTER

#### Core Course Theory – 7 (CC-202)

#### **REGIONAL GEOGRAPHY: INDIA AND JHARKHAND**

Time: 3 Hrs 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 Regions (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) Agricultural Landscape and industrial region.

#### Module - 4

Population Development – environment interface, policies and programs. Urbanization, prospects and problems of tourism in Jharkhand.

- 1. Khullar D.R. (2006): India A Comprehensive Geography, Kalyani Publications, New Delhi.
- 2. Sharma T.C. (2013: Economic Geography of India, Rawat Publications, Jaipur.
- 3. Mamoriya C. & Mahto V.K. (2010): Bharat Ka Bhoogol, Jharkhand Ka Pradeshik Bhoogol Sahit, Sahitya Bhawan Publications, Meerut.
- 4. Chowhan V.S. & Gautam Alka (2003-2004) : Bharat, Rustogi Publications, Meerut.
- 5. Gautam Alka (2013) : Bharat Ka Brihad Bhoogol, Sharda Pustak Bhawan, Allahabad.
- 6. Singh Sunil Kumar (2005): Inside Jharkhand, Crown Publications, Ranchi.
- 7. Tiwari Ram Kumar (2009) : Jharkhand Ka Bhoogol, Rajesh Publications, New Delhi.
- 8. Kumar Syam (2005) : Jharkhand : Ek Vistrit Adhyayan, Safal Publications, New Delhi.
- 9. Khullar D.R. (2016): Bharat Ka Bhoogol, Kalyani Publications, New Delhi.

Quality

#### SECOND SEMESTER

#### Core Course Theory – 8 (CC-203)

#### **ECONOMIC GEOGRAPHY**

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

#### Course Contents:

#### Module -1

Meaning, Scope and approaches to Economic Geography, main concept of Economic Geography, relation of Economic Geography with other branches of social sciences. Factors of location of economic activities: physical, social, economic and cultural, sectors of economy: Primary, Secondary and tertiary.

#### Module - 2

Mineral Resource: Iron ore, Bauxite & copper, Power resource; Coal, Petroleum and Hydroelectricity, Principal Crops: Rice, Wheat, Sugarcane, Tea, Jute.

#### Module - 3

Agricultural regions of the world (Derwent Whittlessey); theory of agricultural location (Von Thunen); theory of industrial location (weber); Major Industries, Iron & Steel, textiles & Sugar, Industrial Regions of the World.

#### Module - 4

World Transportation: Major Trans-Continental Railways, Sea & Air routes, International trade; Patterns & Trends, Major Trade Blocks; NAFTA, EEC, ASEAN etc.

Quahle

- 1. Alexandery I.W. (1988): Economic Geography, Prentice Hall, New Delhi.
- 2. Roy P.K. (2017): Economic Geography a study of resources: New Central Book Agency (P) Ltd., London.
- 3. Bocsch H. (1964): A Geography of World Economy on no strand, New Delhi.
- 4. Bryson 1.Henry ..... And Martin R (eds) (1999): the Economic Geography Reader, producing and consuming global capitalism: John Wileyand Sons, The New York.
- 5. Clerk, GL Gerter, M.S. and Feldman M.P. (eds) (2000): The oxford Handbook of Economics Geography, Oxford University Press, U.S.A.
- 6. Coc n. (2007): Economic Geography, A contemporary introduction, Blackwell Publishers, Inc, Masachusetts.
- 7. Gautam A. (2006): Arthik Bhoogol Ke mool Tatv, Sharda Pustak Bhawan, Allahabad.
- 8. Haru Md. (2009) : Arthik Bhoogol Ke Mool Tattv, Vasundhara Prakashan, Gorakhpur.
- 9 Saxena H.M. (2013): Economics Geography, Rawat Publications. Jaipur.

Quahle

#### SECOND SEMESTER

#### Core Course Theory - 9 (CC-204)

#### **ENVIRONMENTAL GEOGRAPHY**

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

Course Contents:

#### Module -1

Meaning and Scope of environmental geography, Approaches to study of environment; components of environment, Types of environment, environment and society, environment and development.

#### Module - 2

Biogeography and Ecosystem: Definition, Scope and significance of Biogeography; Basic ecological principles, Geo-Biochemical cycles: nitrogen, oxygen and phosphorus cycles, Biome and biomass, Biodiversity, depletion and conservation.

#### Module - 3

Hazards and change: Environmental hazards; Natural hazard: Landslides Soil erosion, Drought and floods, earth quake & Volcanoes, man-made hazards: Technological hazards, Global climatic changes, Global warming, Green house effects, Ozone depletion.

#### Module - 4

Pollution and Management: Environmental pollution; Pollutants, sources and types of pollution, environmental management, Environmental Policy, Legislation on water, Air, Noise. Environmental protection Act with spatial references to Legislation in India: Environmental Impact assessment, Environmental Management Planning (Emp)

Quality

- 1. Singh Savindra (2003): Environmental Geography: Prayag Pustak Bhawan, Allahabad.
- 2. Singh Savindra (2004) : Paryabaran Prayag Pustak Bhawan, Allahabad.
- 3. Anjuneyulu Y. (2004): Introduction Environmental Science, B.S. Publications, Hyderabad.
- 4. Anjuneyulu Y, (2004) : Environmental impact assessment methodologies, B.S. Publications, Hyderabad.
- 5. Siddhartha K. (2013): Ecology and Environment impact assessment methodologies, B.S. Publications, Hyderabad.
- 6. Dhaliwal G.S., Sangha G.S. & Ralhan P.K. (1998): Fundamentals of Environmental Science, Kalyani Publications, New Delhi.
- 7. Negi P.S. (2010-11): Peristhitiki evam Paryavaran Bhoogol, Rustogi, Publications, Meerut.
- 8. Roa B.P. & Srivastava V.K. (2010): Paryavaran aur Paristhitiki , Vasundhra publications, Gorakhpur.
- 9. Srivastava Sanjeet Kumar (2007): Prayavaran Adhyaya : Crown Publications, Ranchi.

#### SECOND SEMESTER

#### Core Course – (CC(P)-205]

#### **PRACTICAL**

Time: 6 Hrs F.M.: 100 (70+30)

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

#### SECTION - 'A'

#### Course Contents:

- 1. Geological maps, construction of sections and interpretation profiles: serial, Projected, Superimposed and composite (on the basis of topographical sheets). Interpretation of topographical sheets; Relief, Drainage, vegetation, settlement, transportation and communication.
- Mercator's Projection, Sinusoidal projection, Gall's Projection, Gnomonic Projection Mollweide's projection, International map projection.

#### SECTION - 'B'

#### Survey by selected Instruments:

- 3. Dumpy level: Procedure of surveying by Dumpy Level, profile making. Use of Theodolite, procedure of Theodolite surveying, methods of Theodolite surveying.
- 4. Abney level and Indian Clinometers; Determination of Height by Sextant, Slope determination of Hill side (Area Allotted by HOD). **20**
- 5. Practical Note Book & Viva Voca 20

- 1. Morphousi F.J. and Wilkinson H.R. (1989); Maps and Diagrams, B.I,. Publications, New Delhi.
- 2. Saha Pijustbanti & Basu Parth (2011) : Advanced Practical Geography, Books & Allied (P) Ltd., Kolkata.
- 3. Singh Gopal: Map Work and Practical Geography, Vikas Publishing House Pvt. Ltd., New Delhi.
- 4. Singh R.L. & Sigh Rana P.B. (2002): Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 5. Sharma JP., (2004): Prayogik Bhugol: Rastogi Publications Meerut.
- 6. Sarban Ashis (2016): Practical Geography a Systamatic Approach, Orient Black Swan Pvt. Ltd. Hyderabad.
- 7. Singh R.L. & Singh P.B. (2013) Prayogatmak Bhugol Ki Mul Tatwa, Kalyani Publishers, New Delhi.
- 8. Kanetbar and Kulkarni: Surveying and Leveling, Part VI, II

Quahle

#### THIRD SEMESTER - TOTAL 24 CREDITS

#### Core Course Theory – 11 (CC-301)

#### **OCEANOGRAPHY**

Time: 3 Hrs 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, salinity etc.), 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.

Quality

- 1. Singh Savindra (2012); Oceanography, Prayag Pustak Bhawan, Allahabad.
- 2. Lal D.S. (2012); Oceanography, Sharda Pustak Bhawan, Allahabad.
- 3. Lal D.S.(2012); Samudra Vigyan, Sarda Pustak Bhawan, Allahabad.
- 4. Jalvayu evam (2012); Samudra Vigyan, Prayag Pustak Bhawan, Allahabad.
- 5. Tait R.V. (1981); Elements of Marine Ecology Butter Worths, London-Boston.
- 6. Siddhartha K. (2009); Oceanography, Kislaya Publications Pvt. Ltd., New Delhi.
- 7. Gautam Alka (2003-04); Jalvayu evam Samudra Vigyan, Rustogi Publications, Meerut.
- 8. Negi B.S.; Climatology and Oceanography, Kedar Nath Ram Nath, Meerut.
- 9. Sharma R.C. & Vatal M. (2009) Oceanography for Geographers, Chaitanya Publishing House, Allahabad.

#### THIRD SEMESTER

#### Core Course Theory – 12 (CC-302)

#### SETTLEMENT GEOGRAPHY

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

Course Contents:

#### Module -1

Evolution and growth of human settlement, Theories of evolution of Settlement; Spatial and temporal trends in size and growth of settlements. Spatial distribution: Pattern and types of Rural settlement; Theoretical models (Nearest Neighbor and gravitational model).

#### Module - 2

Structure of Settlement: Morphological structure of cities, Empirical and theoretical models (Burges, 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 controlling to settlement hierarchy. Measurement of centrality and hierarchy.

#### Module - 4

Issues, Perspective and policies on population and human settlements. Interface between human settlement and environment, contemporary urban issues; Urban renewal, urban sprawl, slums, green belts, garden cities, Transformation and planning of Indian Village.

Quahle

- 1. Singh R.Y. (2003); Geography of Settlement, Rawat Publication Jaipur, New Delhi.
- 2. Bansal S.C. (2003); Adhivas Bhoogol, Rustogi Publications, Meerut.
- 3. Maurya S.D. (2011) ; Adhivas Bhoogol, Sharda Pustak Bhawan, Allahabad.
- 4. Tiwari R.C. (2006); Adhivas Bhoogol, Prayag Pustak Bhawan, Allahabad.
- 5. Ghosh, S. (2011); Introduction to Settlement Geography, Orient Longman Ltd., Kolkata.
- 6. Madal R.B. (1988); System of rural settlement in developing countries, Concept Publication, New Delhi.
- 7. Hudson F.S. (1970); Geography of Settlement, Maedonald and Evans Ltd., Plymouth.
- 8. Hardoy, J.E. D.V. Satterthwaite, D. (1992); Environmental problems in the world cities, Earthsean Pub. Ltd. London.

#### THIRD SEMESTER

## Discipline Specific Elective -1 (DSE-301) (Student can opt one of the following paper)

## i) Population Geography ii)Agricultural iii) Regional Geography of the world

#### POPULATION GEOGRAPHY

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

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, Measurement 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.

- 1. Newbold K. Bruce (2012): Population Geography Tools and Issues, Rawat Publications Jaipur, New Delhi
- 2. Chandna R.C. (2016); Geography of Population Concepts, Determinants and Patterns, Kalyani Publishers, New Delhi.
- 3. Hassan Md. Izhar (2008): Population Geography, Rawat Publications, Jaipur, New Delhi.
- 4. Sharma Siya Ram (2008): Population Geography Murari Lal & Sons, New Delhi.
- 5. Maurya S.D. (2013); Jansankhya Bhoogal, Sharda Pustak Bhawan, Allahabad.
- 6. Tripathi Ramdeo (2005); Jansankhya Bhoogol, Vasundhra Prakashan, Garabhpur.
- 7. Dubey Kamlakant & Singh Mahendra Bahadur (2004); Jansankhya Bhoogol, Rawat Publications Jaipur, New Delhli.
- 8. Panda B.P. (2004); Jansankhya Bhoogal, Madhyapradesh Hindi Granth Academy, Bhopal.

Quahle

#### THIRD SEMESTER

#### Discipline Specific Elective -1 (DSE-301)

## i) Population Geography ii)Agricultural iii) Regional Geography of the world

#### AGRICULTURAL GEOGRAPHY

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

Course Contents:

#### Module -1

Meaning, Nature, Scope, Significance & development of agriculture geography; Approaches to the study of agriculture geography, Methods & types of cultivation.

#### Module - 2

Determinants of agricultural land Use; land holding & land tenure systems; land reforms; intensity of cropping, diversification; efficiency & Productivity, crop combination regions of India.

#### Module -3

Theories of agricultural location based on several multi-dimentational factors, Von thunen theory of agricultural location & its recent Modifictions, Whittlessey's classification of agricultural regions, land use & land capability.

#### Module - 4

Agriculture in India: food deficit & food surplus regions, nutritional index, specific problems in Indian agriculture & their management, agricultural policy in India.

- 1. Gautam Alka, (2012) : Agricultural Geography, Sharda Pustak Bhawan, Allahabad.
- 2. Gautam Alka (2013); Krishi Bhoogal, Sharda Pustak Bhawan, Allahabad.
- 3. Singh Jasbir & Dhillon SS (2006); Agricultural Geography, Tata McGraw- Hill Publishing Company Ltd., New Delhi.
- 4. Hussain M. (1996) ; Systamatic Agricultural Geography Rawat Publication, Jaipur.
- 5. Kumar Pramila & Sharma Shrikamal (2008); Madhya Pradesh Hindi Grantha Academi, Bhopal.
- 6. Gregor, H.P. (1970); Geography of Agricultural, Prentice Hall, New Delhi.
- 7. Yadav Chandrashekher (2012); Krishi Bhoogal, Vishwabharti Publications, New Delhi.
- 8. Sharma Y.K. (2010); Agricultural Geography, Lakshmi Narain Agarwal, Agra.

#### THIRD SEMESTER

#### Discipline Specific Elective -1 (DSE-301)

#### REGIONAL GEOGRAPHY OF THE WORLD

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

#### Course Contents:

#### Module -1

Asia – Physiography, Climate, Natural Vegetation, Soil, Agriculture, Minerals, Population & Industrial Regions, Important countries – Japan, Srilanka.

#### Module-2

Europe: Physiography, Climate, Natural Vegetation, Soil, Agriculture, Minerals, Population & Industrial regions, important countries – U.K. & New England.

#### Module -3

North & South America: Physiography, Climate, Natural vegetations, Soil, Agriculture, Minerals, Population & Industrial Regions, Important Countries, Canada & Brazil.

#### Module - 4

Africa & Australia : Physiography, Climate, Natural Vegetation, soil, Agricultural, Minerals, Population & Industrial regions, important countries – Egypt & Newzeland.

- 1. Tikba R.N. Bali P.K. & Sobhon M.S.(2005): World Regional Geography, New Academic Publishing Co., Jalandhar.
- 2. Gautam Alka (2007) : World Geography, Sharda Pustak Bhawan, Allahabad.
- 3. Stamp L. Dudley (1986): Asia & Regional and Economic Geography, B.I. Publications Pvt. Ltd., New Delhi.
- 4. Mamoria Chatubhuj & Jain M.M. (1999); Bhowgolik Chintan Evam Teen Dakchini Mahaduip, Shahitya Bhawan Publications, Agra.
- 5. Saxena H.M. (2006-07); Vishva Ka Pradeshik Bhoogol, Rustogi Publications, Meerut.
- 6. Hussain M. (2008): World Geography, Rawat Publications, Jaipur.
- 7. Mamoria Chaturbhuj : Vishva Ka Pradeshik Bhoogol, Sahitya Bhawan Publications, Agra.
- 8. Alexander John W. (1988): Economic Geography, Prentice Hall of India, New Delhi.

#### THIRD SEMESTER

#### Discipline Specific Elective (P) -2 [DSE (P) - 302]

#### **PRACTICAL**

Time: 3 Hrs F.M.: 100

Module -1 30 Marks

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

Module – 2 20 Marks

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

#### Module - 3

1) Modern Technique in Geography – GIS, Remote Sensing and Air Photography. Computer in Cartography: Definition Characteristics, Hardware & Software, introduction to DOS, WINDOWS, WORD & EXCEL. Computer & Geographic Data: Scale of Measurement, Local data and Data Structure.

#### Module - 4

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



- 1. Saha Pyushkanti & Basu Partha (2011); Advanced Practical Geography, Books and Allied (P) Ltd., Kolkata.
- 2. Sarbar Ashis (2016); Practical Geography A Systematic Approach, Orient Blackswan (P) Ltd., New Delhi.
- 3. Sharma J.P. (2004): Prayogik Bhoogol, Rustogi Publications, Meerut.
- 4. Singh R.L.& Singh Rana P.B. (2013); Prayogatmak Bhoogol Ke Mool Tatva, Kaliyani Publishers, New Delhi.
- 5. Sinha M.M.P. & Bala Seema (1012); Uchch Cartography, Sharda Pustak Bhawan, Allahabad.
- 6. Singh R.L. & Singh Rana P.B. (2002); Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 7. Chawaniyal Devi Dutt (2009) : Sudur Sanvedan Evam Bhowgolik Suchna Pranali, Sharda Pustak Bhawan, Allahabad.
- 8. Chang Kang-Tsung (2012); Introduction to Geographic Information systems; Tata Mcgraw- Hill (P) Ltd., New Delhi.

#### THIRD SEMESTER

## INTER DISCIPLINARY RESEARCH METHODS AND TECHNIQUES DISSERTATAION / PROJECT (PR)-1 (PR-301)

Time: 6 Hrs F.M.: 100

Module -1 15 Marks

Meaning of Research, objective & Motivation, Basic components of research, significance of research, research methodology, defining research problem, Hypothesis, Research design, concept of Pure and Applied research.

Module-2 15 Marks

Data Collection: Techniques of primary data collection, preparation of questionnaires, interview and telephonic enquiries, Data Collection from Secondary Sources, Role of Field methods in Geographic studies, Data Analysis and Interpretation.

Module -3 10 Marks

Writing a research paper/report dissertation, literature review, presentation of research findings, Ethical issues in social research, criteria of good research, Problems encountered by researchers in India.

Module – 4 40+10=50 Marks

Dissertation / Project Report & Viva

Topics: Different topics will be allotted to each student under a supervisor (Faculty member of the department) students will be required to submit a dissertation/ project, students shall not be allowed for practical examination without the dissertation/project work duly forwarded by the H.O.D of Department concerned.

- 1. Monbhhouse F.J. & Wilkinson H.R. (1989); Maps and Diagrams, B.I. Publications Pvt. Ltd.
- 2. Singh Gopal: Map work and practical Geography, Vikas Publishing House Pvt. Ltd.
- 3. Suleman Md. V. Kumar Dinesh (2010-11): Manovigyan, Samajshstra, Tatha Shikcha Me Shodh Vidhiyan, General Book Agency Prabashan, Patna.
- 4. Kothari C.R. (2004): Research Methodology Methods & Techniques, New Agi International Publishers, New Delhi.
- 5. Phadiya B.L. (2013) : Shodh Padhhatiyan, Sahitiya Bhawan Publications , Agra.
- 6. Ahuja Ram (2012) : Research Methods, Rawat Publications, New Delhi.
- 7. Gupta Dr. S.L. & Gupta Hitesh (2011): Research Methodology, International Book House Pvt. Ltd., New Delhi.

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Quahle

#### **FOURTH SEMESTER - Total 24 Credits**

## Core Course Theory – 13 (CC-401)

#### REGIONAL PLANNING AND DEVELOPMENT

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

Course Contents:

#### 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 dimension, 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 context of planning, physical regions, resource regions, special purpose region-river valley regions, Metropolitan region.

#### Module -3

Planning for regions' 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.



- 1. Chand Mahesh & Puri V.K. (2012); Regional Planning in India, Allied Publishers Pvt. Ltd., New Delhi.
- 2. Chandna R.C. (2010); Regional Planning and Development, Kalyani Publishers, New Delhi.
- 3. Chandna R.C. (2013); Pradeshik Niyojan Tatha Vikas, Kalyani Publishers, New Delhi.
- 4. Sharma Nandeshwer (2012) : Pradeshik Niyojan Bhoogol, Dristikon Prakashan Pvt. Ltd. , New Delhi.
- 5. Singh Mahendra Bahadur & Dubey Kamlakant (2012); Pradeshik Vikas Niyojan, Tara Book Agency, Varanasi.
- 6. Srivastava V.K. Sharma Nandeshwar & Chawhan P.R. (2007); Pradeshik Niyojan Aur Santulit Vikas, Vasundhra Prakashan, Gorakhpur.
- 7. Bhat L.S. (1973); Regional Planning in India, Micro Level Planning.
- 8. Priedman, J. et.al (1967); Regional Development and Planning, A Reader.

## FOURTH SEMESTER Elective Course Theory – 14 (CE-402)

#### URBAN GEOGRAPHY AND PLANNING

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

**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 of cities</u>: In different historical period with special reference 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

<u>Urban Issues and Planning</u>: 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.



- 1. Carter Harold (2010): The study of urban geography, Rawat Publications, Jaipur.
- 2. Verma L.N. (2008); Urban Geography, Rewat Publications, Jaipur.
- 3. Siddharth K. & Mubherjee :S. (2002) : Cities urbanisation and Urban Shstems, Kisalaya Publications Pvt. Ltd., New Delhi.
- 4. Singh R.N. & Maurya S.D. (2010); Nagariya Bhoogol, Sharda Pustak Bhawan, Allahabad.
- 5. Rao, B.P. & Sharma Nandeswar (2010); Nagarya Bhoogol, Vasundhra Prakashan, Gorabhpur.
- 6. Jones Emrys (1911); Towns & Cities, Oxford University Press, New York.
- 7. Joshi Ratan (2003); Nagarya Bhoogol, Rajasthan Hindi Academi, Jaipur.
- 8. Yadav Chandra Shekher (2012) ; Nagariya Bhoogal, Vishva Bharti Publications , New Delhi.



# Discipline Specific Elective – 3 (DSE-401) (Student Can opt one of the following paper)

- i) Social and Cultural Geography
- ii) Soil and Bio-Geography
- iii) Geography of Transport and Tourism

#### SOCIAL AND CULTURAL GEOGRAPHY

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

Course Contents:

#### Module -1

Nature, Meaning & Development of Social Geography, Philosophical bases of Social Geography, Positivism, Structuralism, Social Structure & Social Processes, Concept of Social space. Elements of Social Geography: Ethnicity dialect, languages, caste & tribe.

#### Module-2

Geographical bases of social formations, contribution of social geography to social theory, power relations and space. Concept of social well-being, Human Development, measurement of human development with social economic and environmental indicators, public policy and social, planning in India.

#### Module -3

Cultural Geography: Nature, Meaning and development, culture: Definition, elements & components, cultural areas & cultural realms.

#### Module - 4

Racial elements in India's Population, Tribes in India: Gond, Bhil, Santhal, Oraon, Munda; Tribes of World: Eskimo, Pygmy, Bushman, Semang.

Quahle

- 1. Knowles R & Warein J. (2000); Economic and Social Geography, Rupa & Co. Publishers, New Delhi.
- 2. Maurya S.D.(2010) : Samajik Bhoogol, Sharda Rustak Bhawan, Allahabad.
- 3. Ahuja Ram (2016) ; Samajik Samasyayen, Rawat Publications, Jaipkur.
- 4. Ahmad Aijazuddin, (2006): Social Geogrpahy, Rawat Publications, Jaipur.
- 5. Gupta M.L. & Sharma D.D. : Samajik Manav Shastra, Sahitya Bhawan, Publications, Agra.
- 6. Kaushik S.D. (2008-09): Manav Bhoogol, Rustogi Publications, Meerut.
- 7. Maurya S.D. (2005); Manav Bhoogal, Sharda Pustak Bhawan, Allahabad.
- 8. Azad Naseem A. (2011): Social and Economic Problems in India; Ramesh Publishing House, New Delhi.

## Discipline Specific Elective – 3 (DSE-401)

#### SOIL AND BIO-GEOGRAPHY

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

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 development. Physical, biotic and chemical. Soil profiles (Podzols, chernozems and Laterites)

#### Module - 2

Physical properties of soil: 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, a zonal and intra-zonal soil, their characteristics and world patterns, soil erosion, degradation and conservation. Soil organisms, macro-animals (earthworms, sowbugs, mites, centipedes, rodents and insects) micro animals and plants-(nematodes, protozoa, rotifers, fungi, bacteria, algae and actinomyces).

#### Module - 3

Definitions of Bio-geography and Ecosystem: Meaning types, components and function of ecosystem energy and nutrients in the ecosystem, food chains and food webs. Bio-chemical cycle: The Nitrogen cycle, the carbon cycle, the hydrological cycle and the phosphorous cycle, Integration of cycles in nature.

#### Module -4

Definitions of Biodiversity, Genetic, Species and Ecosystem Diversity, Importance of bio-diversity, Hot spot of Bio-diversity with reference to India. Loss of Bio-diversity, Conservation of Bio-diversity, Biological diversity and future changes in climates.

- 1. Backman H.O. and Brady N.C (1960): The Nature and Properties of soils; Mc Millan, New York.
- 2. Govinda Rana, S.V. and Gopala Rao H,G. (1978); Studies of soil of India, Vibas Publications, New Delhi.
- 3. Bunting B.T. (1972); The geography of soils, Hitchinson, London.
- 4. Forth H.D. and Turk L.M. (1972): Fundamentals of soils science, John Wiley; New York.
- 5. Sahai V.N. (2010): Fundamentals of soil, Kalyani Publishers, New Delhi.
- 6. De Krishna Nibhil & Gosh Paramatha (2013); Geography of Soils, Sribhumi Publishing House, Kolkata.
- 7. Negi P.S. (2010-11) Paristhitiki Evam Peryavaran Bhogool, Rustogi Publications, Meerut.
- 8. Singh Savindra (2010): Biogeography, Prayag Pustak Bhawan, Allahabad.
- 9. Bhattacharyya N.N. (2006); Bio-geography, Rajesh Publications, New Delhi.
- 10. Sign Sawindera (2013) : Jaiv Bhoogol Prayag Pustak Bhawan, Allahabad.

## Discipline Specific Elective – 3 (DSE-401)

#### GEOGRAPHY OF TRANSPORT AND TOURISM

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

Course Contents:

#### Module -1

Historical development of Transport Geography: Nature, Scope, Significance and Development of Transport Geography, Factors associated with the development of transport system, Physical, Economic, Social, Cultural, Institutional and 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 environmental degradation, Vehicular Pollution and congestion, Alternatives to transport system in Mega cities of India. National Highway development and planning in India.

#### Module - 3

Geography 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, Historial and Economical; Tourism types; ecoethno; Coastal, adventure tourism, National and International Tourism, Globalization and tourism.

#### Module - 4

Trends of Tourism: Tourism circuits, short and longer detraction, international, and Indian Hotel Industry, Impact of tourism-physical economic, 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.

Quality

- 1. Kapur Bimal Kumar (2012) : Prayatan Bhoogal , Vishva Bharti Publications, New Delhi.
- 2. Prasad Kamla & Sarban Prasenjit : Tourism in Jharkhand , Rajesh Publications , New Delhi.
- 3. Pathan A. M. Thigale S.S. (2000): Contributions to Enviornmental Geoscience, Aravali Books International (P) Ltd., New Delhi.
- 4. Srivastava V.K. & Rao B.P. (2010); Peryavaran Aur Paristhitiki, Vasundhra Prakasan, Gorakhpur.
- 5. Singh Savindra (2002); Peryavaran Bhoogol , Prayag Pustak Bhawan, Allahabad.
- 6. Saxena H.M. (2004): Environmental Geography Rawat Publications, Jaipur.

Quahle

## Discipline Specific Elective (P) - 4 (DSE(P)-402)

# PRACTICAL SECTION - 'A'

Time: 3 Hrs F.M.: 50

Course Contents:

## Module -1 (Any one of the Following)

10 Marks

- 1) Ogive
- 2) Lorenz Curve
- 3) BandGraph

## Module - 2 (any one of the following)

10 Marks

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

## Module - 3 (any one of the following)

10 Marks

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

Module – 4 20 Marks

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

## SECTION - "B"

Time: 3 Hrs. 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)

Quality

- 1. Sarbar Ashis (2015): Practical Geography a Systematic Approach; Orient Blackswan (P) Ltd., New Delhi.
- 2. Saha Pyushkanti & Basu Partha (2011); Advanced Practical geography, Books and Applied (P) Ltd., Kolkata.
- 3. Singh Gopal: Mapkwork and Practical Geography, Vakas Publishing House Pvt. Ltd., New Delhi.
- 4. Singh R.L. & Singh Rana P.B. (2002): Elements of Practical Geography, Kalyani Publishers, New Delhi.
- 5. Sharma J.P. (2004); Prayogik Bhoogol, Rustogi Publications, Meerut.
- 6. Tiwari Vishvanath (1980); Manchitrakala Prakashan Hindi Pracharak Sansthan, Varanasi.
- 7. Mamoriya Chatubhuj & Jain Sheshmal; Man-Chitrankan Evam Prayogik Bhoogol, Sahitya Bhawan, Agra.



## FOURTH SEMESTER PROJECT (PR)-2 (PR-401)

## **DISSERTATION / PROJECT**

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 evolution (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.