

Govt. Digvijay PG Autonomous College

Rajnandgaon (C.G.)

Department of Geography

P. G. Syllabus & Scheme of Semester System

Session – 2024- 2025

Chairperson/HOD: Dr. K. N. Prasad

K.N.P.
16.5.2024

Subject Expert: Dr. Shushma Yadav

Shushma

Subject Expert: Dr. K. K. Dwivedi

K.K.D.

Subject Expert: Dr. S. K. Das

S.K.D.
16.5.24

Dr. S. Jenamani

S.J.

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

H.D.

Shri Tikeshwar Kumar Verma

T.K.V.

PAPER - I

Course Code - PGECT 101

GEOMORPHOLOGY

Max. Marks End Semester : 80

UNIT-1 Nature, Scope and Fundamental Concepts of Geomorphology, Interior of the Earth: Swess, Gutenberg, International Union of Geodesy and Geo-Physics.

Theory of Mountain Building: Kober, Holmes, Daly.

UNIT-2 Continental Drift: F B Tailor and Alfred Wegner. Isostasy: Pratt and Airy. Plate Tectonics, Earthquakes, Volcanoes,

UNIT-3 Concept of Gradation: Weathering, Mass Wasting and Erosion.

Cycle of Erosion: W.M. Davis and Walter Penck.

Erosional Landforms: Fluvial, Aeolian, Marine (Costal), Glacial And Karst

Unit -4 Soil Formation. Slope Evolution, Evolution of Drainage. Climatic Geomorphology.

Applied Geomorphology- Hydro - and Urban Geomorphology.

SUGGESTED READINGS:-

1. Ahmed, E. : Coastal Geomorphology of India.
2. Chorley, R. J. : Spatial Analysis in Geomorphology, Methuen, London, 1972.
3. Cooke R.U. and Doornkamp, J.C. : Geomorphology in Environmental Management. An Introduction, Clarendon Press, Oxford, 1974.
4. Thornbury, W.D. Principles of Geomorphology, John Wiloy, New York, 1960.
5. Fairbridge, R.W. Encyclopedia of Geomorphology, Reinholdts, New York, 1968.
6. Goudie, A. : The Nature of the Environment Oxford & Blackwell, London, 1993.
7. Garner, H.F. : The Origin of landscape- A Synthesis of Geomorphology, Oxford Univ. Press, London, 1974.
8. Mitchell, C.W. : Terrain Evaluation. Longman, London, 1973.
9. Ollier, C.D. : Weathering, Longman, London, 1979.
10. Pitty, A.F. : Introduction to Geomorphology, Methuen, London, 1971.
11. Stoddart, D.R. (ed.) : Process and Form in Geomorphology, Roulledge, New York, 1996.
12. . Thornbury, W.D. Principles of Geomorphology, John Wiloy, New York, 1960.
13. . Strahler, A.N. : Physical Geography, Willey, New York.
14. Sharma, H.S. (ed.) : Perspectives in Geomorphology, Concept, New Delhi, 1980.

Chairperson/HOD: Dr. K. N. Prasad

K.N.P.
16-5-2024

Dr. S. Jenamani

S.J.

Subject Expert: Dr. Shushma Yadav

S.Y.

Dr. Shraddha Devi Sahu

S.D.S.

Subject Expert: Dr. K. K. Dwivedi

K.K.D.
16-5-24

Shri Hemraj Daura

H.D.

Subject Expert: Dr. S. K. Das

Shri Tikeshwar Kumar Verma

T.K.V.

PAPER - II

Course Code - PGECT 102

CLIMATOLOGY

Max. Marks End Semester: 80

Unit I : Meaning, Definition, Nature and Scope of Climatology. Difference between Climate and Weather. Atmosphere: Its Composition and Structure. Heat Budget. Temperature: Vertical and Horizontal Distribution.

Unit II: Atmospheric Circulation. Air Pressure Belts. Air Masses. Atmospheric Disturbances: Tropical and Temperate Cyclones. Theory of Monsoon Winds: Thermal, ITCZ and Jet Stream. EL Nino And La Nina,

Unit III: Climatic Classification on the Basis of Temperature and Rainfall.

Climatic Classification of Koeppen and Thornthwaite. Major World Climates: Equatorial, Monsoon, Savannah, Hot Desert, Mediterranean, Tundra .

Unit IV: Climatic Changes during Geological and Historical Times. Global Warming. Acid Rain. Green House Effects. Micro Climate. Applied Climatology.

SUGGESTED READINGS :

1. Barry, R.G. and Chorley P.J.; Atmosphere, Weather and Climate, Routledge, London and New York, 1998.
2. Critchfield, J.H. : General Climatology, Prentice Hall, India, New Delhi, 1993.
3. Das, P.K. : Monsoons National Book Trust, New Delhi, 1987.
4. Fein, J.S. and Stephens, P.N. : Monsoons. Wiley Interscience, 1987.
5. India Met. Deptt. : Climatological Tables of Observatories in India, Govt. of India 1968.
6. Lal, D.S. : Climatology, Chaitanya Publications, Allahabad, 1986.
7. Lydolph, P.E. : The Climate of the Earth, Rowman, 1985.
8. Menon, P.A. : Our Weather, N.B.T., New Delhi, 1989.
9. Peterson, S. : Introduction to Meteorology, Mc Graw Hill Book, London, 1969.
10. Robinson, P.J. and Henderson S. : Contemporary Climatology, Henlow, 1999.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – III

Course Code - PGECT 103

HISTORY OF GEOGRAPHICAL THOUGHT

Max. Marks End Semester: 80

Unit I: Nature and Scope of Geography, Place of Geography in the Classification of Science. Concepts in Geography: Science of Relationship, Areal Differentiation, Spatial Distribution, Interaction, Spatial Organization.

Unit II: Contribution of Greeks: Eratosthenes.

Contribution of Romans : Ptolemy. Dark Age in Geogaphy

Geographical Knowledge in the Ancient Indian Literature.

Contribution of the Arab Geographers : Al Beruni, Al Idrishi, Ibn Battuta,

Unit III: Schools of Thoughts in Modern Geography:

i German School : Humboldt, Ritter and Ratzel ii French School: Blache, Demangeon

iii Anglo-American : J. F. Mackinder, W M Davis, Miss Ellen Churchil Semple,

Unit IV: Determinism, Possibilism and Neo–Detreminism. Dualism in Geography: Physical vs. Human, Systematic vs. Regional. Quantitative Revolution.

SUGGESTED READINGS :

1. Jain, S. M. Bhaugolik Chintan evam Vidhitantra, Sahitya Bhavan Publications, Agra.
2. Ali S.M. : The Geography of Puranas, Peoples Publishing House, Delhi, 1968.
3. Hussain, Majid Bhaugolik Chinta ka itihias, Rawat Publications, New Delhi.
4. Dikshit, R.D. (ed.) : The Art & Science of Geography Rand Mc Nally & Co., 1959.
5. Hartshorne, R. : Perspectives on Nature of Geography Rand Mc Nally & Co., 1959.
6. Husain, M. : Evolution of Geographic Thought, Rawat Pub., Jaipur, 1984.
7. Bansal, Suresh Chandra - Bhaugolik Chintan ke Multatva, Meenakshi Prakashan , Meerut.
8. Johnston, R.J. : The Future of Geography, Methuen, London, 1988.
9. Minshull, R. : The Changing Nature of Geography, Hutchinson University Library, London, 1970.
10. Ali, S. M. : Arab Geography.
11. Taylor, G. : Geography in the 20th Century.
12. Panda, B. P. & L N Verma - Bhaugolik Vichardharaon ka Itihas, M. P. Hindi Granth Academy, Bhopal
13. Harvey D. : Explanation in Geography.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – IV

Course Code - PGEET 104

ADVANCED GEOGRAPHY OF INDIA

Max. Marks End Semester: 80

Unit I : Physical Elements : Geological Structure, Relief Features: The Himalayas. The Great Plains and the Deccan Plateau. Monsoon Climate: Origin and Features, Drainage, Vegetation and Soils: Types.

Unit II : Physical Resources: Water, Minerals (, Iron-ore, Manganese, Bauxite),
Energy(Coal, Petroleum & Natural Gas, Atomic, Solar and Wind)

Unit III : a. Agriculture : Major Crops - Wheat, Rice, Cotton, Sugarcane, and Tea
Agricultural Regions.

b. Major Industries: Iron & Steel, Cement, Cotton, Sugar, Paper. Industrial Regions.

Unit IV : Socio-Cultural Attributes:

- Population: Distribution, Density and Growth,
- Transportation- Roads, Railways and Airways.
- Regionalization of India- O H K Spate, R L Singh.
- Regional Studies- Malabar, Thar Desert, Chhattisgarh.

SUGGESTED READINGS :

1. Centre for Science & Environment (1988) State of India's Environment, New Delhi.
2. Desphande C.D. India : a Regional Interpretation ICSSR & Northern Book Centre 1992.
3. Dreza, Jean & Amartya Sen (ed.) India Economic Development and Social opportunity Oxford University Person, New Delhi. 1996.
4. Kundu A. Moonis Raza: Indian Economy : the Regional Dimension, Speculum Publishers, New Delhi, 1992.
5. Robinson, Francs : The Cambridge Encyclopaedia of India, Pakistan, Bangladesh, Sri Lanka, Nepal, Bhutan & Maldives Cambridge University Press, London, 1989.
6. Singh R.L. (ed.): India - A Regional Geography, NGSI, Varanasi, 1971.
7. Spate OHK & ATA Learnmonth-India & Pakistan Methuen, London. 1967.
8. Tirtha, R. & Gopal Krishna, Emerging India Reprinted by Rawat Publications, Jaipur 1996.
9. Sharma T.C. and O. Coutinho : Economic and Commercial Geography of India.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER - V

Course Code - PGECT 105

PRACTICAL : ADVANCED CARTOGRAPHY

Max. Marks End Semester : 100

Graphs and Diagrams : Triangular graph. Logarithmic Graphs, Scatter Graphs;
Climatograph. Proportional Circles, Spheres and Cubes.

Thematic Maps : Choropleth Maps, Isolines, Flow Maps, Iso-chrones..

Morphometric Analysis : Profiles, Slope Analysis; Altimetric Curves.

SUGGESTED READING :

1. Monk house F.J. & H.R. Wilkinson : Maps and Diagrams, Methuen, London.
2. Shrama J.P. Practical Geography.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

M.A. GEOGRAPHY
SEMESTER - II

M.A. Geography Semester-II shall consist the following papers :

Paper	Course Code	Title	Marks			Credits
			Written	Internal	Total	
VI	PGECT 201	Economic Geography and Natural Resource Management	80	20	100	4
VII	PGECT 202	Oceanography	80	20	100	4
VIII	PGECT 203	Social Geography	80	20	100	4
IX	PGECT 204	Regional Development and planning	80	20	100	4
X	PGECT 205	Practical-II Map Projection, Interpretation and Surveying	-	-	100	4

1. The M.A. Semester-II examination in Geography shall consist of 500 marks.

There shall be four theory papers of 100 marks each and one practical of 100 marks as given in the above Table.

2. The theory papers shall be of three hours duration.

3. Candidates will be required to pass separately in theory and practical examinations.

4. (a) In the practical examination the following shall be the allotment of time and marks.

(i) Practical record	20%	20
(ii) Lab work (up to 4 hours)	70%	70
(iii) Viva on (i) and second (ii) above	10%	10

(b) The external and internal examiners shall jointly submit their marks.

(c) All the candidates shall present at the time of the practical examination.

Along with their practical record regularly signed by the teachers concerned.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – VI
Course Code - PGECT 201
Economic Geography and Natural Resource Management

Max. Marks End Semester: 80

- Unit I:** Meaning, Definition, Natural and Scope of Economic Geography; Fundamental Concepts of Economic Geography; Approaches of Economic Geography, Classification of Economies, Sector of Economy (Primary, Secondary and Tertiary).
- Unit II:** Meaning, Definition, Natural and Classification of Resources Natural Resources and Economic Development: Resource Adequacy and Scarcity.
Concept of Resource Utilization : Optimum use, under use, overuse.
- Unit III:** A :- World Major Natural Resources and Its management Soil, Forests, Water.
Minerals (Iron ore) and Energy (Coal, Hydal).
B:- Industrial Location Theory – Alfred Weber, August Losch, David M. Smith, Walter Izard.
- Unit IV:** A :- Means of transport: Roads, Railways and Waterways, International trade; Import and Export
B :- Industrial Region of India, WTO and India.

SUGGESTED READINGS :

1. Ahemd, Jaleel: Natural Resource in Low Income Countries.
2. Bennet' II.II.- Element of soil conservation.
3. Ciriacy, wantrup, S.V. & persons (eds) - Natural Resource quality and quantity.
4. Edvard, and rosers – Agriculture Resource.
5. Owens, O.S.-Natural Resource.

Chairperson/HOD: Dr. K. N. Prasad ^{KNP 16-5-2024}
Subject Expert: Dr. Shushma Yadav ^{SY}
Subject Expert: Dr. K. K. Dwivedi ^{KKD}
Subject Expert: Dr. S. K. Das ^{SKD}

Dr. S. Jenamani ^{SJ}
Dr. Shraddha Devi Sahu ^{SDS}
Shri Hemraj Daura ^{HD}
Shri Tikeshwar Kumar Verma ^{TKV}

PAPER - VII
Course Code - PGEET 202
OCEANOGRAPHY

Max. Marks End Semester : 80

- Unit I :** Nature and Scope of Oceanography; Historical Development of Oceanography. Major Features of Ocean Basins: General and of the Pacific, Atlantic and Indian Ocean. Marine Deposits.
- Unit II :** Physical and Chemical Properties of Sea Water: Temperature and Salinity. Ocean Water Circulation - Ocean Currents: Origin and Distribution (Pacific, Atlantic and Indian), Tides: Types and Theories of Origin – Equilibrium, Progressive and Stationary.
- Unit III :** Marine Biological Environment : Bio-zones, Types of Organisms: Plankton, Nekton and Benthos. Coral - Reefs
Food and Mineral Resources of the Sea.
- Unit IV :** Major Marine Environment: Estuary, Deltas. Impact of Human on the Marine Environment: Marine Pollution, Marine Ecology, Over Fishing and Sea Level Change: Causes and Its Impact. Law of the Sea.

SUGGESTED READINGS :

1. Davis Richard J.A. : "Oceanography-An Introduction to the Marine Environment". C. Brown Iowa, 1986.
2. Duxbury, C.A. and Duxbury B. : An Introduction to the world's Oceans- C. Brown. Iowa , 1986.
3. Garrison, T. : "Oceanography - An Introduction to Marine Science" Books/Cole, Pacific Grove, USA, 2001.
4. Gross, M. Grant : Oceanography, a View of the earth, prantice-Hall inc, New Jersey, 1987.
5. King C.A.M. Oceanography for Geographers 1962.
6. Sharma, R. C. "The Oceans", Rajesh N. Delhi, 1985.
7. Ummerkutty, A.N.P. Science of the Oceans and Human life, NBT, New Delli, 1985.
9. Sharma, R. C. & M. Vatal : Oceanography : A Brief Introduction kislaya Pub. New Delhi.
10. Siddartha, K. : Oceancgraphy : A Brief Introduction, Kislya Pub. New Delhi.

Chairperson/HOD: Dr. K. N. Prasad

K.N.P. 16.5.2024

Subject Expert: Dr. Shushma Yadav

[Signature]

Subject Expert: Dr. K. K. Dwivedi

[Signature]

Subject Expert: Dr. S. K. Das

[Signature]

Dr. S. Jenamani

[Signature]

Dr. Shraddha Devi Sahu

[Signature]

Shri Hemraj Daura

[Signature]

Shri Tikeshwar Kumar Verma

[Signature]

PAPER - VIII

Course Code - PGECT 203

Social Geography

Max. Marks End Semester : 80

- Unit I:** Social Geography: Nature and Scope. Philosophical Bases of Social Geography: Structuralism, Radicalism, Humanism, Modernism.
- Unit II:** Geographical Bases of Social Formations- Structure, Process and Patterns: Role of Race, Caste, Religion and Languages in the Evolution of Socio-Cultural Regions in India. Social Transformation and Change in India.
- Unit III:** Physical Quality of Life, Human Development Index. Rural and Urban Deprivation in India with Respect to Health Care, Education and Shelter. Discrimination Issues of Women and Under-privileged Groups.
- Unit IV:** Policies and Planning: Social Policy in Five Year Plans and Area Plans. Strategies to Improve Social Well-being in Tribal Areas, Hill Areas, Drought - Prone Areas and Flood -Prone Areas.

SUGGESTED READINGS

Ahmad, Aijazddin 1999, Social Geography, Rawat Publication, New Delhi.

Rao, MSA, 1970 Urban Sociology in India, Orient Longman, New Delhi

Dubey, S.C. 1991 Indian Society, National Book Trust, New Delhi

ekS;Z ,l- Mh-] 2004] lkekftd Hkwxsy] 'kkjnk iqLrd Hkou,] 11 ;qfuoZflVh jksM]

bykgkcknA

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – IX PAPER - IX
Course Code - PGECT 204

REGIONAL DEVELOPMENT AND PLANNING

Max. Marks End Semester: 80

- Unit I :** Regional Planning : Meaning, Definition, Nature, Scope, Aims, Approaches and Its Evolution. Russian Experience of Planning..
- Unit II :** Theory of Growth Pole and Growth Centre.
Development Theory – Friedman, Myrdal, Frank and Hirschman.
- Unit III :** Planning in India: Planning Regions in India - C.S. Chandrashekhar, Ashok Mitra, L.S. Bhatt & V L S Prakash Rao, P.Sengupta & Galina Sadasyyuk.
Multi level Planning in India. Regional Planning in Five Year Plans.
Intra- and Inter Regional Disparity in Development in India.
- Unit IV :** Regional Development Policy and Programmes - Tribal Area, Flood-Prone Area, Drought- Prone Area, Hill Area and Damodar River Valley (DVC).

RECOMMENDED READINGS -

3. Freeman, E.W. : Geography and Planning.
6. Stamp L.D. : The Land of Britain : Its use and Misure.
7. Sdasyuk. Galina and Dengupta, P. : Economic Regionalization of India problems and Approches.
8. Desai, P.B. & Others : Regional Perspective of Industrial and Urban Growth the case of Kanpur, Bombay, 1969.
9. Prakash, Rao V.L. & S.P. : Regional Planning.
10. Census of India : Economic and Socio- Cultural Dimensions of Regionalisation (An Indo-USSR Colaborative Study)
11. Friedmann J. & Alonsow : Regional Development and Planning, M.I.T. Press.
12. Misra R.P. (ed.): Regionl Planning: Concept, Techniques, Policies & Case Studies Mysore 1969.
13. Misra, R.P. & others : Regional Development and Planning in India.
14. Chandna, R.C. Pradeshik Niyojan evam Vikas, Kalyani Publication
5. Maurya, S. D. Pradeshik Niyojan evam Vikas, Pravalika Publication, Prayagraj.
16. Bhatt L.S. and others : Micro level planning - A Case Study of Karnal Area, Hyryana (K.B. Publishing, New Delhi)

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – X

Course Code - PGECT 205

PRACTICAL-II : MAP PROJECTIONS, INTERPRETATION AND SURVEYING

Max. marks End Semester : 100

Map Projections : Mathematical /Graphical Construction of World Projections.

Interpretation of Maps : Geological Maps and Topographical Sheets.

Principles and Methods of Topographical Surveying- Theodolite and Dumpy Level. Solution of Problems in Surveying.

SUGGESTED READINGS :

1. Davis, R. C. & E. S. Forte : Surveying : Theory and Practical.
2. Kanetkar, T.R. & S.V. Kulkarni : Surveying and levelling part I & II A.V.G. Prakashan, Poona.
3. Monkhouse F.J. & H.R. Wilkinson : Maps and Diagrams, Methuen, London.
4. Sharma G P Practical Geography

Chairperson/HOD: Dr. K. N. Prasad

Dr. S. Jenamani

Subject Expert: Dr. Shushma Yadav

Dr. Shraddha Devi Sahu

Subject Expert: Dr. K. K. Dwivedi

Shri Hemraj Daura

Subject Expert: Dr. S. K. Das

Shri Tikeshwar Kumar Verma

M.A. GEOGRAPHY

SEMESTER - III

M.A. Geography Semester-III shall consist the following papers :

Paper.	Course Code	Title	Marks			Credits
			Written	Internal	Total	
XI	PGECT 301	Population Geography	80	20	100	4
XII	PGECT 301	Settlement Geography	80	20	100	4
XIII_A	PGECT 301	Remote Sensing Techniques	80	20	100	4
XIII - B	PGECT 301	Bio- Geography	80	20	100	4
XIV	PGECT 301	Research Methodology	80	20	100	4
XV	PGECT 301	Statistical Techniques	-	-	100	4

1. The M.A. Semester-III examination in Geography shall consist of 500 marks.
There shall be four theory papers of 100 marks each and one practical of 100 marks as given in the above Table. **Students have an optional Paper in Paper XIII, where he/she has to choose one.**

2. The theory papers shall be of three hours duration.

3. Candidates will be required to pass separately in theory and practical examinations.

4. (a) In the practical examination the following shall be the allotment of time and marks.

(i) Practical record	20%	20
(ii) Lab work (up to 4 hours)	70%	70
(iii) Viva on (i) and second (ii) above	10%	10

(b) The external and internal examiners shall jointly submit their marks.

(c) All the candidates shall present at the time of the practical examination.

Along with their practical record regularly signed by the teachers concerned.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – XI
Course Code - PGECT 301
POPULATION GEOGRAPHY

Max. Marks End Semester : 80

- Unit I :** Meaning , Definition, Nature and scope of Population. Relation of Population Geography with other Social Sciences. Sources of Population Data: Census of India, National Sample Survey Organization, National Family Health Survey Civil Registration System and Vital Statistics.
- Unit II :** Concept of population: Distribution, Growth, Density, Fertility, Mortality and Migration.
- Unit III :** Population Composition: Age, sex, Marital, Occupation, Literacy and Rural-Urban in the World. Growth of population: Decennial and Annual. Population Projection.
- Unit IV :** Population Theory- Malthus, Sadler, Adwin Kenen. Optimal, Over and Under Population. Demographic Dividend. Demographic Transition.

SUGGESTED READINGS -

1. Bilasborrow, Richard E and Daniel Hogan, Population and Delorestation in the Humid Eropics, International Union for the Scientific Study of Population, Belgium 1999.
2. Bogua, D.J. Principles in Demography, John Wiley, New York 1969.
3. Bose, Ashish et al. : Population in India's Development (1947-2000); Vikas Publishing House, New Delhi, 1974.
4. Census of India, India : A State Profile, 1991.
5. Chandna, R. C. Geography of Population, Concepts, Determinants and Patterns. Kalyani Publishers, New York, 2000.
6. Clarke, John I. Population Geography, Pergamon Press, Oxford, 1973.
7. Crook, Nigel Principles of Population and Development Pergmaon Press. New York 1997.
8. Garnier, B.J. Geography of Population Longman, London, 1970.
9. Mamoria, C.B. India's Population Problem, Kitab Mahal New Delhi, 1981.
10. Mitra, Ashok India's Population : Aspects of Quality and Control Vol I & II. Abhiman Publications, New Delhi, 1978.
11. Premi, M.K. India's Population : Heading Towards a Billion, B.R., Publishing Corporation 1991.
12. Sundaram K. V. and Sudesh Nangia, (ed.) Population Geography, Henlage Publications, Delhi, 1986.
13. UNDP : Human Development Report, Oxford University Press, Oxford, 2000.
14. U. N. Methods for Projections of urban and Rural Population No. VIII, New York, 1974.
15. Woods R. Population Amalysis in Geography Longman, London, 1979.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER - XII
Course Code - PGECT 302
SETTLEMENT GEOGRAPHY

Max. Marks End Semester: 80

Unit I: Nature and Scope of Settlement Geography.

Concepts of Settlement: Rural Settlement, Urban Settlement, Hierarchy of Settlement, Primate City and Morphology of Settlement.

Origin and Types of Settlement.

Unit II : Rural Settlements : Types and Patterns, Rural House Types.

Size and Spacing of Rural Settlements. Rural Problems and Planning.

Unit III : Urban Settlements: Evolution and Growth. Urban Centres: Site and Situation. Rank-Size Rule of Urban Settlements;

Unit IV : Cities as Central Places: Central Place Theory – Christaller and Losch.

City - Country Relationship: Umland, Rural-Urban Fringe,

SUGGESTED READINGS :

1. Abercrombee, Sir P. : Town and Country planning 1961.
2. Alam, Shah Manzoor : Hyderabad Secundrabad (Twin Cities) A study in urban geography)
3. Alam, S.M. & V.V. Pokshishevesky : Urbanization in developing countries.
4. Berry Brain J. L. : Geographic Prospectives on Urban Systems.
5. Bresse, C. & D.F. Whiteman : An approach to Urban Planning
6. Dickinson, R.E. : City, Religion and Regionalism.
7. Gallion and Fisher : The Urban Pattern.
8. Griffith, J.P. : A study of Urban constructions in India.
9. Gibbs : Urban Research Methods.
10. Mayor, H.M. & C.F. Kohn : Readings in Urban Geography.
11. Morgan, F. W. : Ports and Harbours.
12. Mumford L. : Culture of cities.
13. Robson, W.A. : Great cities of world.
14. Robson, B.T. : Urban Growth : An approach, methuen, London.
15. Carter, Harold : Study of Urban Geography, London, Edward Arnold, 1979.
16. Singh R.L. & K.N. Singh : Readings in Rural Settlement Geography, NGSi Varanasi, 1975.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

Remote Sensing Techniques

Max. Marks End Semester : 80

Unit I

Historical Development of Remote Sensing as a Technology.
Relevance of Remote Sensing in Geography.
Concepts of Basics : Energy Source, Energy and Radiation Principle.
Energy Interactions in the Atmosphere and Earth Surface Featured.
Remote Sensing Systems : Platform Sensors.
Microwave Sensing Interpretation of SLAR Imageries, Thermal Imageries.

Unit II

Remote Sensing Satellite : Platforms- LANDSAT, SPOT, NOAA, RADARSAT, IRS, INSAT.
Principles of Scanners and CCD Arrays. Orbital Characteristics and Data Products – MSS, TM, LISS –I & LISS –II, SPOTPLA and MLA, SLAR.

Unit III

Image Processing. Types of Imagery. Techniques of Visual Interpretation. Ground Verification, transfer of interpreted Thematic Information to Base maps- Digital Processing. Rectification and Restoration, Image Enhancement - Contrast Manipulation. Classification: Supervised and Unsupervised, Post –Classification Analysis and Accuracy Assessment.

Unit IV

Application: Air Photo and Image Interpretation, Arid Mapping, Land—Use, and Cover, Land Evaluation, Urban Land-Use, Landform and Its Process, Weather Studies and Studies of Water Resources, Integration of Remote sensing and GIS. Remote sensing and Hazards Management, Remote sensing and Environmental Management.

Reference

Chauniyal, Devidutt Remote Sensing and Geographic Information System. In Hindi.

Chairperson/HOD: Dr. K. N. Prasad

K.N. Prasad
16.5.2024

Subject Expert: Dr. Shushma Yadav

Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

K.K. Dwivedi

Subject Expert: Dr. S. K. Das

S.K. Das

Dr. S. Jenamani

S. Jenamani

Dr. Shraddha Devi Sahu

Shraddha Devi Sahu

Shri Hemraj Daura

Hemraj Daura

Shri Tikeshwar Kumar Verma

Tikeshwar Kumar Verma

Paper XIII – B

Course Code - PGECT 303

BIO-GEOGRAPHY

Max. Marks End Semester :80

Unit I : Definition and Scope of Bio-Geography. Habitat and Types. Plants-Animal Association. Biome and its Types - Equatorial Rain Forest, Desert, Terrestrial, Aquatic and Grassland (Tropical and Temperate).

Unit II : Elements of Plant Geography. Distribution of Forests and Communities. Plant Successions in Newly Formed Landforms. Zoo-Geography:

Unit III : Ecosystem: Components and Function, Tropic level, Ecological Pyramids, Ecological Niche, Energy and Nutrients in Ecosystem. Food Chain and Food Webs.

Unit IV : Man – Environment Relationship: Resource use and Ecological Imbalance with reference to soil, Forest and energy resource. Biodiversity and Its Conservation of the Ecosystems through Resource Management.

Environment Legislation: The stockhom Conference and the Earth Summit. Environment Laws in India (the wild life act. Water Act., Environment Protection Act and National Environment Tribunal Act.)

Suggested Readings -

1. Chandana, R.C. 1998 : Environment Awareness, Klyani Publication, New Delhi.
2. Simmons, I.D. 1981 : Ecology to Natural Resources, Edward Arnold, London.
- 3^प लक्ष्मीचंद अग्रवाल : जैव भूगोल।
- 4^प होता : जैव भूगोल एवं पारिस्थितिकी।
- 5^प बी. पी. राव : पर्यावरण एवं पारिस्थितिकी।
- 6^प डॉ. विजय तिवारी : पर्यावरण अध्ययन, हिमालय पब्लिकेशन, मुम्बई।
- 7^प डॉ. विजय तिवारी : पर्यावरण एवं पारिस्थितिकी, हिमालय पब्लिकेशन, मुम्बई।
- 8^प डॉ. विजय तिवारी : पर्यावरण प्रदूषण अध्ययन, हिमालय पब्लिकेशन, मुम्बई।
9. AGRAWAL, D.P. : Man and Environment in India, through ages. Books & Books, 1992.
10. Cox. C.D. and Moore, P.D. : Biogeography; an ecology and evolutionary approach 5th edn. Bacwell, 1993.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

Paper- XIV

Course Code - PGECT 304

Research Methodology

Max. Marks End Semester : 80

- Unit I :** Nature and Scope of **Research Methodology**. Scientific Research: Procedure and Characteristics. Research Problem. Research Design.
Hypothesis – Types. Sampling: Types.
- Unit II :** Methods of Data Collection- Observation, Questionnaire, Schedule and Interview.
- Unit III :** Measures of Dispersion: Mean Deviation, Standard Deviation and Coefficient of Variation.
Correlation: Types , Product Moment, Rank Correlation and Carl Pearson's Co-efficient of Correlation. Linear Regression.
- Unit IV :** Data- Processing and Analysis: Coding, Classification, Tabulation and Analysis.
Preparation of Research Report. Report : Types and Steps.

RECOMMENDED READINGS -

1. Selltitz, C. M. Jahoda, M.Deutsch – Research method in Social Relation, holt, New York 1961.
2. Goode, W and P.K. Hatt – Method in social research Mc Graw Hill, Tokyo, 1962.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER - XV

Course Code - PGECT 305

PRACTICAL-III : QUANTITATIVE TECHNIQUES

Max. Marks: 100

- Deviation - Mean, Quartile, Standard and Co-efficient of Variation.
- Dispersion – Lorenz Curve. Nearest Neighbour Analysis
- Correlation- Product Moment, Rank Correlation,
Carl Pearson's Coefficient of Correlation.
- Linear Regression.
- Test of Hypothesis: Z Test, F Test, 't' Test and Chi-square Test.

SUGGESTED READINGS -

1. Singh, R.L. & P.K. Dutt : Elements of Practical Geography Students Friends.
2. Monkhouse, F.J. & H.R. Wilkinson; Maps and Diagrams Mathieu, London.
3. Mahmood, Aslam 1971 : Statistical Methods in Geographical studies Rajesh Pub., New Delhi.
4. Gregory, S. : Statistical Methods and The Geographer.
5. Hammond & Mc ullah 1977 : Quantitative Techniques in Geography, Clarendon Press, Oxford.
6. Fitz, Gomid, B.P. : Science in Geography, Developments in Geographical Method, Oxford University Press.
7. Yeates, M. : An Introduction to Quantitative Analysis in Human Geography, McGraw Hill, New York.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

M.A. GEOGRAPHY
SEMESTER - IV

M.A. Geography Semester-IV shall consist the following papers :

Paper	Course Code	Title	Marks			Credits
			Written	Internal	Total	
XVI	PGECT 401	Urban Geography	80	20	100	4
XVII	PGECT 402	Agriculture Geography	80	20	100	4
XVIII	PGECT 403	Health Geography	80	20	100	4
XIX	PGECT 404	Socio-Economic Survey Report	80	20	100	4
XX	PGECT 405	Remote Sensing, GPS and G.I.S.	-	-	100	4

1. The M.A. Semester-II examination in Geography shall consist of 500 marks.

There shall be four theory papers of 100 marks each and one practical of 100 marks as given in the above Table.

2. The theory papers shall be of three hours duration.

3. Candidates will be required to pass separately in theory and practical examinations.

4. (a) In the practical examination the following shall be the allotment of time and marks.

(i) Practical record	20%	20
(ii) Lab work (up to 4 hours)	70%	70
(iii) Viva on (i) and second (ii) above	10%	10

(b) The external and internal examiners shall jointly submit their marks.

(c) All the candidates shall present at the time of the practical examination.

Along with their practical record regularly signed by the teachers concerned.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER-XVI

Course Code PGECT 401

URBAN GEOGRAPHY

Max. Marks End Semester: 80

Unit I : Meaning, Definition, Nature and scope of Urban geography. Approaches in Urban Geography.

Attributes of Urban Places during Ancient, Medieval and Modern Periods.

Unit II : Urban Morphology – Theories of Urban Structure (Concentric Zone Theory, The Sector Theory and The Multiple Nuclei Theory). and Urban Land Use. City Core (CBD).

Unit III : Urban Economic Base: Basic and Non-Basic Economic Functions.

Functional Classification of Towns - Harris and Nelson.

Classification of Towns in India – Ashok Mitra, Lewis Mumford, G. Taylor.

Unit IV : Contemporary Urban Issues: Slums, Transportation, Housing.

Urban Environmental Problems: Air, Water, Noise.

Urban Planning : Aims Master Plan – Chandigarh, NCR, Bhubneshwar, Navi Mumbai.

Suggested Readings -

- 1.Rao,B.P. and N Sharma *Nagariye Bhoogol*, Vasundhara Prakashan , Goorakhpur.
2. Singh, O.P *Nagariye Bhoogol*,
3. Bansal, S.C. *Nagariye Bhoogol*, Meerut
- 4.. Dickinson, R.E. : *City, Religion and Regionalism*.
5. Mayor, H.M. & C.F. Kohn : *Readings in Urban Geography*
- 6.. Carter, Harold : *Study of Urban Geography*, London, Edward Arnold, 1979.
- 7.. Singh R.L. & K.N. Singh : *Readings in Rural Settlement Geography*, NGSi Varanasi, 1975.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – XVII

Course Code PGECT 402

AGRICULTURE GEOGRAPHY

Max. Marks End Semester:80

Unit I : Nature, Scope and development of Agricultural Geography, Approaches to the Study of Agricultural Geography: Commodity, Systematic and Regional Systems.

Unit II : Determinants of Agriculture - Physical, Economic, Social and Technological.
Land holding and Land Tenure System, Land Reforms,

Unit III : Von Thunen's Theory of Agricultural Location.

Whittlesey's classification of agricultural regions. Agricultural Regions in India.
Land use, Crop=Combination and Cropping .Shifting Cropping Pattern. Green Revolution, White revolution

Unit IV : Agricultural Policy in India : Contemporary Issues : Drought and Food Security, Irrigation, Fertilizers, Insecticides and Pesticides, Technological Know-How.

Suggested Readings -

1. Edward, and Rosers – Agriculture Resource.
2. Gautam, Alka Krishi Bhoogol, Sharda Pustak Bhawan, Allahabad
3. Krishi Bhoogol, Kailash Pustak Sadan, Bhopal
4. Hussain, Majid Krishi Bhoogol, Rawat Publication, New Delhi.
5. Singh, Indira Krishi Bhoogol

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – XVIII
Course Code PGECT 403
HEALTH GEOGRAPHY

Max. Marks End Semester: 80

Unit I : Meaning, Definition, Nature and Scope of Health Geography. Approaches of Health Geography. Development of Health Geography – in 18th, 19th and 20th Century. Concept of Health and Health Care in Ancient India. Indicators of Health. Characteristics of Health Care. Levels of Health Care.

Unit II Physical and Economic Factors Affecting Human Health:

- Geographical Factors: Relief, Soil and Climate.
- Economic Factors: Income and Place of Work.

Unit III Social and Cultural Factors Affecting Human Health:

- Social: Education and Educational Levels.
- Environmental: Pollution of Air, Water, Soil, and Noise.

Unit IV : Health Care – International Level: WHO, UNICEF, RED CROSS.

- National Level: CHC and PHC. Sub-Health Centres.
- Local Level: Mitanin, Aanganwadis.

Suggested Readings -

- Khatri, Harish Chandra 2018 Swasthya Bhoogol, Kailash Pustak Sadan, Bhopal
- Carol, Huss (ed.) 1989 *The Banyan Tree: A Textbook for Holistic Health Practitioners*, Vol. 1, Sahaj / Medical Mission Sisters, Pune.
- Eyles, John 1987 *The Geography of National Health: Essays in Welfare Geography*, Groom Helm, London.
- Pacione, Michel (ed.) 1986 *Medial Geography: Progress and Prospect*, Croom Helm, London.
- Park, K. 1995 *Park's Textbook of Preventive and Social Medicine*, Banarsidas Bhanot Pub. Jabalpur, 14th Edition.
- Prasad, Krishna Nandan 2023 Swasthya Bhoogol, Adhyayan Publishers & Distributors, New Delhi
- Singhai, 1999 Chikitsa Bhoogol, Sharda Prakashan, Gorakhpur.
- Smith, David M. 1997 *Human Geography: A Welfare Approach*, Arnold Heinemann, London.
- Stamp, L D 1964 *The Geography of Life and Death*, Cornell University, UK.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

PAPER – XIX

Course Code PGECT 404

SURVEY REPORT ON SOCIO-ECONOMIC STATUS OF A VILLAGE

Max. Marks End Semester:100

SCHEME OF CHAPTERIZATION

Chapter - I Introduction

Statement of the Problem, Objective, Hypothesis, Data, Methods, Review of Literature

Chapter - II Geographical Aspect

Location, Structure, Relief, Drainage, Climate, Vegetation, Soil.

Chapter - III Demographic Aspect

Population Density. Composition of Population: Age, Sex, Religion, Caste.
Growth of Population.

Chapter - IV Economic Aspect

Composition of Population: Occupational, Income, Size of Holding.
Agricultural Produce and Productivity. Use of Technology. Loan for Agriculture.
Animal Husbandry- Milch Animals, poultry, Pigistry, Fish.

Chapter - V Social Aspect

Education: Literacy – Total, Male, Female, Caste, Religion, Age-wise.
Educational Levels - . Total, Male, Female, Caste, Religion, Age-wise.
Marital Status - Total, Male, Female, Caste, Religion, Age-wise.

Chapter – VI Conclusion

Bibliography

Appendices

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma

Paper XX
Course Code PGECT 405
REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM

Max. Marks End Semester : 100

Elements of Spatial Data

Sources of Data : primary and secondary. Raster and Vector Data Structures.
Conversion & Comparison of Raster and Vector data
Methods of Spatial Interpolation.

Air photo and Image Interpretations

Important Terminologies: Fiducial Points, Overlapping, Principal Point, Conjugate Points, Determination of Scale and Height.

Mapping of Land use and Land Cover

GIS Point, Line and Polygon

Text: Lat -Long, Scale, Index, Direction. Shading

SUGGESTED READINGS -

- 1.2. Barrett E.C. and L.F. Curtis : Fundamentals of Remote Sensing and Air Photo Interpretation on, Mcmillan, New York, 1992.
3. Campbell J. : Introduction to Remote Sensing, Guilford, New York, 1989.
4. Curran, Paul J. : Principles of Remote Sensing. Longman, London, 1985.
6. Luder D., Aerial Photography Interpretation : Principles and Application, CcGraw Hill, New York, 1959.
8. Rao D. P. (eds.) : Remote Sensing for Earth Resources, Association of Exploration Geophysicisl, Hederabad, 1998.
9. Thomas M. Lolllesand and Ralph W. Kefer, Remote Sensing and Image Interpretation, Wiley & sons, New York, 1994.
11. Burrough P.A. Principles of Geographic Information Systems for Land Reson Assessment Oxford University Press, New York, 1986.
13. Maquire D.J.M.F. Goodchild and D.W. Rhind (eds.). Geographic information System Principles and Application. Taylor & Francis, Washington, 1991.
15. Peuquet D. J. and D.F. Marble, Introductory Reading in Geographic Information System Taylor & Francis, Washington, 1990.
16. Star J. and J. Estes, Geographic Information Systems : An Introduction, Prentice Engle Wood Cliff, New Jersey, 1994.

Chairperson/HOD: Dr. K. N. Prasad

Subject Expert: Dr. Shushma Yadav

Subject Expert: Dr. K. K. Dwivedi

Subject Expert: Dr. S. K. Das

Dr. S. Jenamani

Dr. Shraddha Devi Sahu

Shri Hemraj Daura

Shri Tikeshwar Kumar Verma