

FIRST SEMESTER
GEOGRAPHY
PROGRAMME COURSE
CORE COURSE – CC

COURSE CODE: GEO-P-CC-1-01-TH

Credits: 04

PHYSICAL GEOGRAPHY

1. Earth's interior with special reference to seismology
2. Plate Tectonics as a unified theory of global tectonics. Formation of major relief features of the ocean floor and continents according to Plate Tectonics
1. Folds and faults: Classification and surface expression
2. Principal geomorphic agents. Classification and evolution of fluvial, coastal, aeolian and glacial landforms

Reading list

1. *Billings, M.P. 1971. Structural Geology, Pearson.*
2. *Goudie, A.S. (Ed) 2004. Encyclopaedia of Geomorphology, vol. 1 & 2, Routledge.*
3. *Gregory, K.J., Lewin, J. 2014. The Basics of Geomorphology: Key Concepts, Sage.*
4. *Harvey, A. 2012. Introducing Geomorphology: A Guide to Landforms and Processes, Dunedin Academic Press.*
5. *Kale, V.S., Gupta, A. 2001. Introduction to Geomorphology, Orient Longman.*
6. *Kearey, P., Klepeis, K.A., Vine, F.J. 2011. Global Tectonics, 3rd ed, Wiley-India.*
7. *Monkhouse, F.J. 1974. Principles of Physical Geography (2009-reprint), Platinum Publishers.*
8. *Selby, M.J. 1986. Earth's Changing Surface, Oxford University Press.*
9. *Strahler, A. 2016. Introducing Physical Geography, 6th ed, Wiley.*
10. *Summerfield, M.J. 2003. Global Geomorphology: An Introduction to the Study of landforms, Longman.*

COURSE CODE: GEO-P-CC-1-01-PR

Credits: 02

PRACTICALS

1. Construction of scale; plain (linear and comparative), diagonal and vernier scale
2. Map Projection: Zenithal Gnomonic Projection (Polar Case), Cylindrical Equal Area Projection (Equatorial Case), Simple Conical Projection with one standard parallel, Sinusoidal Projection

Practical Record: A project file covering all practical topics must be prepared.

Reading List

1. *Farndon, J. 2012. The Illustrated Guide to Rocks & Minerals, Southwater.*
2. *Pillent, C. 2002. Smithsonian Handbooks: Rocks & Minerals, Dorling Kindersley.*
3. *Sarkar, A. 2015. Practical Geography: A Systematic Approach, 3rd ed, Orient Blackswan Private Ltd.*
4. *Sen, P.K. 1989. Geomorphological Analysis of Drainage Basin: An Introduction to Morphometric and Hydrological Parameters, University of Burdwan.*

5. Sorrell, C.A. *Rocks and Minerals: A Guide to Field Identification*, St. Martin's Press.

Important Note: Continuing evaluation will be as follows:

COURSE CODE: GEO-P-CC-1-01-CE: Class test

SECOND SEMESTER
GEOGRAPHY
PROGRAMME COURSE
CORE COURSE – CC

COURSE CODE: GEO-P-CC-2-02-TH
HUMAN GEOGRAPHY

Credits: 04

1. Introduction: Definition, Scope and Content of Human Geography
2. Cultural Regions; Race; religion and language with reference to India
3. Population growth and distribution with special reference to India;
4. Population-Resource Relationship

COURSE CODE: GEO-P-CC-2-02-PR
PRACTICALS

Credits: 02

1. Diagrammatic Data Presentation – Line, Bar and Circle;
2. Thematic Mapping Techniques: Choropleth, Proportional Circles and Proportional Divided Circles

Practical Record: A project file covering all practical topics must be prepared.

References:

1. Aoyama, Y., Murphy, J.T., Hanson, S. 2010. *Key Concepts in Economic Geography*, Sage.
2. Chandna, R.C. 2016. *Geography of Population: Concepts, Determinants and Patterns*, Kalyani Publishers.
3. Coe N. M., Kelly P. F. and Yeung H. W., 2007: *Economic Geography: A Contemporary Introduction*, Wiley-Blackwell. Fouberg, E.H., Murphy, A.B., de Blij H.J. 2015. *Human Geography: People, Place, and Culture*, 11th ed, Wiley.
4. Ghosh, S. 1998. *Introduction to Settlement Geography*, Sangam Books Ltd.
5. Gregory, D., Johnston, R., Pratt, G., Watts., Whatmore, S. (Eds) 2009. *The Dictionary of Human Geography*, 5th ed, Wiley.
6. Knox, P.L., Marston, S.A. 2014. *Human Geography: Places and Regions in Global Context*, 6th ed, Pearson Education Limited.
7. Knox, P.L., McCarthy, L.M. 2011. *Urbanization: An Introduction to Urban Geography*, 3rd ed, Pearson Educztuion Ltd.
8. Moseley, W.G., Perramond, E., Hapke, H.M., Laris, P. 2013. *An Introduction to Human-Environment Geography: Local Dynamics and Global Processes*, Wiley-Blackwell.
9. Norton, W. 2014. *Human Geography*, 8th ed, Oxford University Press.

Important Note: Continuing evaluation will be as follows:

COURSE CODE: GEO-P-CC-2-02-CE: Class test

THIRD SEMESTER
GEOGRAPHY
PROGRAMME COURSE
CORE COURSE – CC

COURSE CODE: GEO-P-CC-3-03-TH

Credits: 04

REGIONAL DEVELOPMENT (THEORY)

1. Definition, types of Regional planning: Formal, Functional, and Planning regions
2. Regional Imbalances and problems of functional regions.
3. Strategies; Models for Regional Planning: Growth Pole Model of Perroux;
4. Problem Regions and Regional Planning: Backward Regions and Regional Plans- Special Area Development Plans in India

COURSE CODE: GEO-P-CC-3-03-PR

Credits: 02

PRACTICALS

1. Interpretation of Indian Topographical maps: plains and plateaus; scale 1:50000 (Broad physiography, drainage, natural vegetation, settlement, transport and communication, simple profiles and transect chart)
2. Geological maps: Uniclinal and folded structures with given dips

Practical Record: A project file covering all practical topics must be prepared.

Reading List

1. Adell, Germán (1999) *Literature Review: Theories and Models Of The Peri-Urban Interface: A Changing Conceptual Landscape*, Peri-urban Research Project Team, Development Planning Unit, University College London at
2. Bhatt, L.S. (1976) *Micro Level Planning in India*. KB Publication, Delhi
3. Deshpande C. D., 1992: *India: A Regional Interpretation*, ICSSR, New Delhi.
4. Dreze J. and A. Sen, *Indian Development: Select Regional Perspectives* (Oxford: Oxford University Press, 1996).
5. Ses, Amratya (2000) *Development as Freedom*. Random House, Toronto
6. Raza, M., Ed. (1988). *Regional Development. Contributions to Indian Geography*. New Delhi, Heritage Publishers.
7. Rapley, John (2007) *Understanding Development: Theory and Practice in the 3rd World*. Lynne Rienner, London.
8. Schmidt-Kallert, Einhard (2005) *A Short Introduction to Micro-Regional Planning, Food and Agriculture Organization of the United Nations (FAO)*
9. Sdyasuk Galina and P Sengupta (1967): *Economic Regionalisation of India, Census of India*

Important Note: Continuing evaluation will be as follows:

COURSE CODE: GEO-P-CC-3-03-CE: Project report on any rural issue

Project Report:

1. Each student will prepare an individual report based on primary and secondary data

2. The word count of the report should be about 4000 to 6000 excluding figures, tables, photographs, maps, references and appendices
3. One typed copy of the report on A4 size paper should be submitted in soft binding.

SKILL ENHANCEMENT COURSE - SEC (ANY ONE)

Students will have to choose any one from the given course

COURSE CODE: GEO-SEC-A-3-01-TH

Credit: 02

REMOTE SENSING

1. Remote Sensing: Definition and development; platforms and types; photogrammetry.
2. Satellite Remote Sensing: Principles, EMR Interaction with atmosphere and earth surface; satellites (Landsat and IRS); sensors
3. Image Processing (Digital and Manual): Pre-processing (Radiometric and Geometric Correction); Enhancement (Filtering); Classification (Supervised and Un-supervised)
4. Satellite Image Interpretation.
5. Application of Remote Sensing: Land Use/Land Cover.

Reading List

1. *Bhatta , B. (2008) Remote Sensing and GIS, Oxford University Press, New Delhi.*
2. *Campbell J. B., 2007: Introduction to Remote Sensing, Guildford Press*
3. *Jensen, J. R. (2005) Introductory Digital Image Processing: A Remote Sensing Perspective, Pearson Prentice-Hall.*
4. *Joseph, G. 2005: Fundamentals of Remote Sensing, United Press India.*
5. *Lillesand T. M., Kiefer R. W. and Chipman J. W., 2004: Remote Sensing and Image Interpretation, Wiley. (Wiley Student Edition).*
6. *Li, Z., Chen, J. and Batsavias, E. (2008) Advances in Photogrammetry, Remote Sensing and Spatial Information Sciences CRC Press, Taylor and Francis, London*
7. *Mukherjee, S. (2004) Textbook of Environmental Remote Sensing, Macmillan, Delhi.*
8. *Nag P. and Kudra, M., 1998: Digital Remote Sensing, Concept, New Delhi.*
9. *Singh R. B. and Murai S., 1998: Space-informatics for Sustainable Development, Oxford and IBH Pub.*

COURSE CODE: GEO-SEC-A-3-01-TH

Credit: 02

RURAL DEVELOPMENT

1. Rural Development: Concept, basic elements, measures of level of rural development
2. Paradigms of rural development: Gandhian approach to rural development; Lewis model of economic development,
3. Area based approach to rural development: Drought prone area programmes, PMGSY
4. Target group approach to rural development: SJSY, MNREGA, Jan DhanYojana and rural connectivity
5. Rural Governance: Panchayati Raj System and rural development policies and programmes in India

Reading list:

1. Gilg, A.W. 1985. *An Introduction to Rural Geography*, Edwin Arnold.
2. Krishnamurthy, J. 2000. *Rural Development: Problems and Prospects*, Rawat Publications.
3. Lee, D.A., Chaudhuri, D.P. (Eds) 1983. *Rural Development and State*, Methuen Publishing.
4. Misra, R.P., Sundaram, K.V. (Eds) 1979. *Rural Area Development: Perspectives and Approaches*, Sterling Publishers.
5. Misra, R.P. (Ed.) 1985. *Rural Development: Capitalist and Socialist Paths, Vol-1*, Concept Publishing.
6. Ramachandran, H., Guimaraes, J.P.C. 1991. *Integrated Rural Development in Asia: Learning from Recent Experience*, Concept Publishing.
7. Robb, P. (Ed.) 1983. *Rural South Asia: Linkages, Change and Development*, Curzon Press.
8. Singh, K., Shishodia, A. 2016. *Rural Development: Principles, Policies, and Management*, 4th ed, Sage.
9. Wanmali, S. 1992. *Rural Infrastructure, the Settlement System and Development of the Regional Economy in Southern India*, International Food Policy Research Institute.
10. Yugandhar, B.N., Mukherjee, N.(Eds) 1991. *Studies in Village India: Issues in Rural Development*, Concept Publishing.

FOURTH SEMESTER
GEOGRPHY
PROGRAMME COURSE
CORE COURSE – CC

COURSE CODE: GEO-P-CC-4-04-TH

Credits: 04

SPATIAL INFORMATION TECHNOLOGY

1. Introduction: definitions, concept and historical development
2. Spatial Information/Data: Web data sources; registration and projection; data structures; data interpolation and modelling.
3. Functions of Spatial information system: Information retrieval; Topological modelling; networks; overlay; data output.
4. Application of Spatial Information Technology

COURSE CODE: GEO-P-CC-4-04-PR

Credits: 02

PRACTICALS

1. Identification of broad physical and cultural features from aerial photographs using pocket stereoscope
2. Statistical techniques: Measures of central tendency and measures of dispersion

Practical Record: A project file covering all practical topics must be prepared.

Reading List

1. C. Esperança and H. Samet, *An overview of the SAND spatial database system, to appear in Communications of the ACM, 1997.*
<http://www.cs.umd.edu/~hjs/pubs/sandprog.ps.gz>
2. G. Hjaltason and H. Samet, *Ranking in Spatial Databases in Advances in Spatial Databases —4th Symposium, SSD'95, M. J. Egenhofer and J. R. Herring, Eds., Lecture Notes in Computer Science 951, Springer-Verlag, Berlin, 1995, 83-95.*
<http://www.cs.umd.edu/~hjs/pubs/incnear.ps>
3. H. Samet, *Spatial Data Structures in Modern Database Systems: The Object Model, Interoperability, and Beyond, W. Kim, Ed., Addison-Wesley/ACM Press, 1995, 361-385.*
<http://www.cs.umd.edu/~hjs/pubs/kim.ps>
4. H. Samet, *Applications of Spatial Data Structures: Computer Graphics, Image Processing, and GIS, Addison-Wesley, Reading, MA, 1990. ISBN 0-201- 50300-0.*
5. H. Samet, *The Design and Analysis of Spatial Data Structures, Addison-Wesley, Reading, MA, 1990. ISBN 0-201-50255-0.*
6. H. Samet and W. G. Aref, *Spatial Data Models and Query Processing in Modern Database Systems: The Object Model, Interoperability, and Beyond, W. Kim, Ed., Addison-Wesley/ACM Press, 1995, 338-360.* <http://www.cs.umd.edu/~hjs/pubs/kim2.ps>
7. C. D. Tomlin, *Geographic Information Systems and Cartographic Modeling, Prentice-Hall, Englewood Cliffs, NJ, 1990. ISBN 0-13-350927-3.*

COURSE CODE: GEO-P-CC-4-04-CE: Seminar

SKILL ENHANCEMENT COURSE – SEC (ANY ONE)

Students will have to choose any one from the given course

COURSE CODE: GEO-SEC-A-4-02-TH

Credit: 02

GEOGRAPHICAL INFORMATION SYSTEM

1. Geographical Information System (GIS): Definition and Components.
2. Global Positioning System (GPS): Principles and uses; DGPS.
3. GIS Data Structures: Types (spatial and Non-spatial), raster and vector data structure.
4. GIS Data Analysis: Input; geo-referencing; editing, output and query; overlays.
5. Application of GIS: Land use mapping; urban sprawl analysis; forests monitoring.

Reading List

1. Bhatta, B. (2010) *Analysis of Urban Growth and Sprawl from Remote Sensing*, Springer, Berlin Heidelberg.41
2. Burrough, P.A., and McDonnell, R.A. (2000) *Principles of Geographical Information System-Spatial Information System and Geo-statistics*. Oxford University Press
3. Heywoods, I., Corneliuss, S and Carver, S. (2006) *An Introduction to Geographical Information system*. Prentice Hall.
4. Jha, M.M. and Singh, R.B. (2008) *Land Use: Reflection on Spatial Informatics Agriculture and Development*, New Delhi: Concept.
5. Nag, P. (2008) *Introduction to GIS*, Concept India, New Delhi.
6. Sarkar, A. (2015) *Practical geography: A systematic approach*. Orient Black Swan Private Ltd., New Delhi
7. Singh, R.B. and Murai, S. (1998) *Space Informatics for Sustainable Development*, Oxford and IBH, New Delhi.

COURSE CODE: GEO-SEC-A-4-02-TH

Credit: 02

TOURISM MANAGEMENT

1. Concepts, Nature and Scope, Inter-relationships of tourism, recreation and leisure; geographical parameters of tourism by Robinson.
2. Type of tourism: Nature tourism, cultural tourism, medical tourism, pilgrimage tourism and ecotourism
3. Recent Trends of Tourism: International and regional; domestic (India); Meetings, Incentives, Conventions and Exhibitions (MICE)
4. Tourism in India: Case studies of Himalaya, desert, coastal areas and heritage;
5. National Tourism Policy

Reading List:

1. Boniface, B., Cooper, R., Cooper, C. 2016. *Worldwide Destinations: The Geography of Travel and Tourism*, vol. 1, 7th ed, Routledge.
2. Edgell, D.L., Swanson, J. 2013. *Tourism Policy and Planning: Yesterday, Today, and Tomorrow*, Routledge.
3. Fennell, D.A.2014. *Ecotourism*, 4th ed, Routledge.

4. Hall, C.M., Lew, A.A. 2009. *Understanding and Managing Tourism Impacts: An Integrated Approach*, Routledge.
5. Hall, C.M., Page, S.J. 2014. *The Geography of Tourism and Recreation: Environment, Place and Space 4th ed*, Routledge.
6. Honey, M. 2008. *Ecotourism and Sustainable Development, Second Edition: Who Owns Paradise? 2nd ed*, Island Press.
7. Kale, V.S. (Ed) 2017. *Geomorphology of India*, Indian Institute of Geomorphologists.
8. Lew, A., Hall, C.M., Timothy, D.J. 2008. *World Geography of Travel and Tourism: A Regional Approach*, Butterworth-Heinemann.
9. Mason, P. 2017. *Geography of Tourism: Image, Impacts and Issues*, Good fellow Publishers.
10. Mowforth, M., Munt, I. 2015. *Tourism and Sustainability: Development, globalisation and new tourism in the Third World, 4th ed*, Routledge.
11. Var, T., Gunn, C. *Tourism Planning: Basics, Concepts, Cases, 4th ed*, Routledge.
12. Velvet, N. 2017. *An Introduction to the Geography of Tourism, 2nd ed*, Rowman & Littlefield Publishers.
13. Williams, S., Lew, A.A. 2014. *Tourism Geography: Critical Understandings of Place, Space and Experience, 3rd ed*, Routledge.
14. Wilson, J. 2017. *The Routledge Handbook of Tourism Geographies*, Routledge.

FIFTH SEMESTER

GEOGRAPHY

DISCIPLINE SPECIFIC ELECTIVE - DSE

(Students will choose either Disaster Management or Sustainable Management)

COURSE CODE: GEO-P-DSE-5-01-TH

Credits: 04

DISASTER MANAGEMENT

1. Disasters: definition and concepts: hazards, disasters; risk and vulnerability; classification
2. Disasters in India: (a) flood: causes, impact, distribution and mapping; landslide: causes, impact, distribution and mapping; drought: causes, impact, distribution and mapping
3. Disasters in India: (b) earthquake and tsunami: causes, impact, distribution and mapping; cyclone: causes, impact, distribution and mapping.
4. Response and mitigation to disasters: mitigation and preparedness, NDMA and NIDM; Indigenous Knowledge and Community-Based Disaster Management

COURSE CODE: GEO-P-DSE-5-01-PR

Credits: 02

PRACTICALS

1. Project report based on any one field based case studies among the following disasters:
 - a) Flood
 - b) Landslide
 - c) Human induced disaster: fire, chemical and industrial accidents

Practical Record

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The word count of the report should be about 4000 to 6000 excluding figures, tables, photographs, maps, references and appendices.
3. One typed copy of the report on A 4 size paper should be submitted in soft binding

Reading List

1. *Government of India. (1997) Vulnerability Atlas of India. New Delhi, Building Materials & Technology Promotion Council, Ministry of Urban Development, Government of India.*
2. *Kapur, A. (2010) Vulnerable India: A Geographical Study of Disasters, Sage Publication, New Delhi.*
3. *Modh, S. (2010) Managing Natural Disaster: Hydrological, Marine and Geological Disasters, Macmillan, Delhi.*
4. *Singh, R.B. (2005) Risk Assessment and Vulnerability Analysis, IGNOU, New Delhi. Chapter 1, 2 and 3*
5. *Singh, R. B. (ed.), (2006) Natural Hazards and Disaster Management: Vulnerability and Mitigation, Rawat Publications, New Delhi.*
6. *Sinha, A. (2001). Disaster Management: Lessons Drawn and Strategies for Future, New United Press, New Delhi.*

7. *Stoltman, J.P. et al. (2004) International Perspectives on Natural Disasters, Kluwer Academic Publications. Dordrecht.*
8. *Singh Jagbir (2007) "Disaster Management Future Challenges and Opportunities", 2007. Publisher- I.K. International Pvt. Ltd. S-25, Green Park Extension, Uphaar Cinema Market, New Delhi, India (www.ikbooks.com).*

COURSE CODE: GEO-P-DSE-5-01-TH
SUSTAINABLE DEVELOPMENT

Credits: 04

1. Sustainable Development: definition, components, limitations and historical background.
2. The Millennium Development Goals: national strategies and international experiences
3. Inclusive Development: education, health; climate change: the role of higher education in sustainable development; the human right to health; poverty and disease; the challenges of universal health coverage; policies and global cooperation for climate change
4. Sustainable Development policies and programmes: The proposal for SDGs at Rio+20; Illustrative SDGs; goal-based development; financing for sustainable development; principles of good governance; National Environmental Policy, CDM.

COURSE CODE: GEO-P-DSE-5-01-PR
PRACTICALS

Credits: 02

1. Project report based on any one field based case study among the following:
 - a) Health issues in any local village
 - b) Education status in any local village

Practical Record

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The word count of the report should be about 4000 to 6000 excluding figures, tables, photographs, maps, references and appendices.
3. One typed copy of the report on A 4 size paper should be submitted in soft binding

Reading List

1. *Agyeman, Julian, Robert D. Bullard and Bob Evans (Eds.) (2003) Just Sustainabilities: Development in an Unequal World. London: Earthscan. (Introduction and conclusion.).*
2. *Ayers, Jessica and David Dodman (2010) "Climate change adaptation and development I: the state of the debate". Progress in Development Studies 10 (2): 161-168.*
3. *Baker, Susan (2006) Sustainable Development. Milton Park, Abingdon, Oxon; New York, N.Y.: Routledge. (Chapter 2, "The concept of sustainable development").*
4. *Brosius, Peter (1997) "Endangered forest, endangered people: Environmentalist representations of indigenous knowledge", Human Ecology 25: 47-69.*
5. *Lohman, Larry (2003) "Re-imagining the population debate". Corner House Briefing 28.*

6. *Martínez-Alier, Joan et al (2010) "Sustainable de-growth: Mapping the context, criticisms and future prospects of an emergent paradigm" Ecological Economics 69: 1741-1747.*
7. *Merchant, Carolyn (Ed.) (1994) Ecology. Atlantic Highlands, N.J: Humanities Press. (Introduction, pp 125.)*
8. *Osorio, Leonardo et al (2005) "Debates on sustainable development: towards a holistic view of reality". Environment, Development and Sustainability 7: 501-518.*
9. *Robbins, Paul (2004) Political Ecology: A Critical Introduction. Blackwell Publishing.*
10. *Singh, R.B. (Eds.) (2001) Urban Sustainability in the Context of Global Change, Science Pub., Inc., Enfield (NH), USA and Oxford & IBH Pub., New Delhi.*

COURSE CODE: GEO-P-GE-5-01-CE: Class test

SIXTH SEMESTER
GEOGRAPHY
DISCIPLINE SPECIFIC ELECTIVE - DSE

(Students will choose either Climate Change: Vulnerability and Adaptation or Rural Development)

COURSE CODE: GEO-P-DSE-6-02-TH

Credits: 04

CLIMATE CHANGE: VULNERABILITY AND ADAPTATION

1. Science of climate change: understanding climate change; green house gases and global warming; global climatic assessment- IPCC
2. Climate change and vulnerability: physical vulnerability; economic vulnerability; social vulnerability
3. impact of climate Change: Agriculture and Water; Flora and Fauna; Human Health
4. Adaptation and mitigation: global initiatives with particular reference to South Asia.

COURSE CODE: GEO-P-DSE-6-02-PR

Credits: 02

PRACTICALS

1. Project report based on climate change field based case studies among any one of the following:
 - a) Local level
 - b) National level

Practical Record

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The word count of the report should be about 4000 to 6000 excluding figures, tables, photographs, maps, references and appendices.
3. One typed copy of the report on A 4 size paper should be submitted in soft binding

Further Readings

1. *IPCC. (2007) Climate Change 2007: Impacts, Adaptation and Vulnerability. Contribution of Working Group II to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.*
2. *IPCC (2014) Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.*
3. *IPCC (2014) Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.*
4. *Palutikof, J. P., van der Linden, P. J. and Hanson, C. E. (eds.), Cambridge University Press, Cambridge, UK.*

5. *OECD. (2008) Climate Change Mitigation: What Do We Do? Organisation and Economic Cooperation and Development.*
6. *UNEP. (2007) Global Environment Outlook: GEO4: Environment for Development, United Nations Environment Programme.*
7. *Singh, M., Singh, R.B. and Hassan, M.I. (Eds.) (2014) Climate change and biodiversity: Proceedings of IGU Rohtak Conference, Volume 1. Advances in Geographical and Environmental Studies, Springer*
8. *Sen Roy, S. and Singh, R.B. (2002) Climate Variability, Extreme Events and Agricultural Productivity in Mountain Regions, Oxford & IBH Pub., New Delhi.*

COURSE CODE: GEO-P-DSE-6-02-TH

Credits: 04

RURAL DEVELOPMENT

1. Defining Development: Inter-Dependence of Urban and Rural Sectors of the Economy; Need for Rural Development, Gandhian Approach of Rural Development.
2. Rural Economic Base: Panchayat raj System, Agriculture and Allied Sectors, Seasonality and Need for Expanding Non-Farm Activities, Co-operatives, PURA.
3. Area Based Approach to Rural Development: Drought Prone Area Programmes, PMGSY.
4. Target Group Approach to Rural Development: SJSY, MNREGA, Jan Dhan Yojana and Rural Connectivity.

COURSE CODE: GEO-P-DSE-6-02-PR

Credits: 02

PRACTICALS

1. A case study on socio economic status of the people at any one of the following level:
 - a) Mouza level
 - b) Village level

Practical Record

1. Each student will prepare an individual report based on primary and secondary data collected during field work.
2. The word count of the report should be about 4000 to 6000 excluding figures, tables, photographs, maps, references and appendices.
3. One typed copy of the report on A 4 size paper should be submitted in soft binding

Reading List

1. *Gilg A. W., 1985: An Introduction to Rural Geography, Edwin Arnold, London.*
2. *Krishnamurthy, J. 2000: Rural Development - Problems and Prospects, Rawat Publs., Jaipur*
3. *Lee D. A. and Chaudhri D. P. (eds.), 1983: Rural Development and State, Methuen, London.*
4. *Misra R. P. and Sundaram, K. V. (eds.), 1979: Rural Area Development: Perspectives and Approaches, Sterling, New Delhi.*
5. *Misra, R. P. (ed.), 1985: Rural Development: Capitalist and Socialist Paths, Vol. 1, Concept, New Delhi.*
6. *Palione M., 1984: Rural Geography, Harper and Row, London.*

7. *Ramachandran H. and Guimaraes J.P.C., 1991: Integrated Rural Development in Asia – Learning from Recent Experience, Concept Publishing, New Delhi.*
8. *Robb P. (ed.), 1983: Rural South Asia: Linkages, Change and Development, Curzon Press.*
8. *UNAPDI 1986: Local Level Planning and Rural Development: Alternative Strategies. (United Nations Asian & Pacific Development Institute, Bangkok), Concept Publs. Co., New Delhi.*
9. *Wanmali S., 1992: Rural Infrastructure Settlement Systems and Development of the Regional Economy in South India, International Food Policy Research Institute, Washington, D.C.*
10. *Yugandhar, B. N. and Mukherjee, Neela (eds.) 1991: Studies in Village India: Issues in Rural Development, Concept Publs. Co., New Delhi.*

COURSE CODE: GEO-P-GE-6-01-CE: Seminar