UNIVERSITY OF RAJASTHAN
JAIPUR

SYLLABUS

M. Phil. Geography

Semester Scheme

Examinations 2016-2017

Dy. Registrar (Acad.)
University of Rajasthan
JAIPUR

Ph.D. Coursework/ M. Phil Examinations

Eligibility for admission: Eligibility and procedure for admission to Ph.D/ M.Phil course are prescribed in Ordinance (s) separately.

SCHEME OF EXAMINATION: I SEMESTER
(Common for Ph.D and M.Phil)

1. There shall be four papers and each paper is divided into four units. Two questions will be set form each unit. Candidates are required to attempt four questions in all selecting one question from each unit. All questions carry equal marks.
2. Each paper carries of 100 marks out of which 20 marks will be for internal assessment. Written examination of 80 marks will be of three hours duration.
3. Minimum pass marks will be 50% aggregate in each paper. However, a candidate has to secure minimum 40% in internal assessment and written examination separately.

(Internal assessment will be done by the teachers concerned on the basis of sessional test, assignment, classroom presentation, regularity and discipline in the class)

PAPERS FOR SEMESTER I (16 CREDITS)

Paper I	Research Methodology (4 Credits)
Paper II	Review of Literature in the proposed field of Research (4 Credits)
Paper III	Applied Geography (4 Credits)
Paper IV	Any one of the following:
	(a) Introduction to Geoinformatics (4 Credits)
	(b) Disaster Perception and Management (4 Credits)

PAPERS FOR SEMESTER II (M. PHIL. STUDENTS ONLY) (24 CREDITS)

Paper V	Advanced Economic Geography (6 Credits)
Paper VI	Regional Planning and Development (6 Credits)
Paper VII	Any one of the following:
	(a) Advanced Geomorphology (6 Credits)
	(b) Advanced Biogeography (6 Credits)
	(c) Advanced Urban Geography (6 Credits)
Paper VIII	Dissertation (6 Credits)

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SEMESTER I

Paper I: Research Methodology (4 Credits)

Unit I — Meanings and nature, approaches to research, fact and theory, paradigm and theory building, types of hypothesis and models, questionnaire and schedule (need, significance and procedure) sampling theory: types, a model of sampling designs and needs, research design, formulation of research schemes and research projects, writing of research report.

Unit II — Selected techniques of spatial analysis, concentration and dispersal of economic activities, combinational analysis, methods of measuring regional disparities and inequalities, interaction theory.

Unit III — Applications of statistical methods, data collection (sources and methods), probability, correlation (simple and multiple and partial), regression (simple and multiple), regression residual, matrix, multivariate analysis.

Unit IV — Network analysis, packages for quantitative geographical analysis, introduction to RS and GIS, population projection, umland (meaning and its delineation) integrated area development planning, methods of delimiting regions (economic, industrial, agricultural and planning).

Recommended Readings:

Ahuja, R. 2009: Research Methods, Rawat Publishers, Jaipur.

Baker, A.R.H. and M. Billing 1982: Periods and Place: Research Methods in Historical Geography, Cambridge University Press, Cambridge.

चौनियाल, डी.डी. 2006: सुदूर संवेदन एवं भौगोलिक सूचना प्रणाली, शारदा पुस्तक भवन, इलाहाबाद।

Gupta, S.P. 1979: Statistical Methods. Sultan Chand & Sons, New Delhi, (Twelth thoroughly revised edition).

Guthrie, G. 2010: Basic Research Methods – An Entry to Social Science Research. SAGE Publications, India Pvt Ltd., New Delhi.

Prasad, Ha. 1992: Research Methods and Techniques in Geography, Rawat Publication, Jaipur.

Harvey, D. 1969: Explanation in Geography. Arnold Heinemann, London (first Indian edition 1984).

Johnston, R.J. and Sidaway, J.D. 2004: Geography & Geographers. Arnold, London.

Kothari, C.R. 1990: Research Methodology – Methods and Techniques. Wishwa Prakashan, New Delhi (second edition).

Mahmood, A. 1998: Statistical Methods in Geographical Studies. Rajesh Publication, New Delhi (fourth revised edition).

Mishra, H.N. and Singh, V.P. 1998: Research Methodology in Geography. Rawat Publication, Jaipur.

Mishra, R.P. 1989: Research Methodology, Concept Publishing Company, New Delhi.

Pal, S.K. 1998: Statistics for Geoscientists – Techniques and Applications. Concept Publishing Company, New Delhi.

Sarkar, A. 2013: Quantitative Geography; Techniques and Presentations: Orient Blackswan Pvt. Ltd. New Delhi.

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Sarkar, A. 2013: Quantitative Geography; Techniques and Presentations: Orient Blackswan Pvt. Ltd. New Delhi.

PAPER II: Review Literature in the Proposed Field of Research (4 Credits)

Unit I — Concept of review of literature, essential features, importance of review literature in the field of research, Copyright and plagiarism, subdividing the available literature.

Unit II — Review of literature from various sources (national and international journals, books, edited books, magazines, newspapers, published and unpublished dissertation Ph.D. thesis, online database and E-Journal)

Unit III — Formulations of research design, preparation of research project, synopsis, chapterization, references and bibliography.

Unit IV — Writing research proposal and report, objectives, importance, problems of report writing, contents, language and style of report, characteristics of good report, analysis of report writing

Recommended Readings

Hart, C. 1998: Doing a Literature Review. Releasing the Social Science Research imagination Sage, London.
Oliver, P. 2008. Writing Your Thesis. Sage South Asian Edition, New Delhi.
Markman, R. H. and Waddell, M. L. 2001. Ten Steps in Writing the Research Paper.
Ridley D. 2008: The Literature Review: A Step by Step guide for students. Sage, London.

Paper III: Applied Geography (4 Credits)

Unit I — Nature, content of applied geography, scope and development of applied geography (cycle of pure and applied geography) identification of problems of interdisciplinary nature (like environment resources base, resources use development and disparity).

Unit II — Spatial organization of economic activities (like agriculture, industry, transport trade etc.) Urban systems management and rural livelihoods security.

Unit III — Issues pertaining to human resource development: quality versus numbers social and demographical attributes, diversity and disparities environmental structures and carrying capacity of the earth, human resource skills and manpower planning and employability.

Unit IV — Environmental Issues: environmental pollution (air, water, soil and noise), desertification, environmental degradation, and environmental disaster management.

Recommended Readings:

Burton, I. et al 1978: The Environment as Hazard, Oxford University Press, Oxford.

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Lownsburg, J.F and Aldrich, F.T. 1979: Methods and Introduction to Geographical Methods and techniques, Clarlesmarrill, Columbas

Harvey David :explanation in geography, Edwards Arnolds, London

Dohrs, F.E. and sommers, L.W. 1967: introduction to geography, Thomas Y Crowell Co. New York

Stamp, L.D. 1960: Applied Geography Penguin, London.

Paper IV (a) Introduction to Geoinformatics (4 Credits)

Unit I Types of remote sensing, elements of remote sensing, spectral signatures and resolutions, image interpretation and interpretation keys.

Unit II Components of geographic information systems (GIS), concept of geospatial databases, basic data formats: raster and vector integration of RS and GIS. spatial data management systems.

Unit III Elements of digital cartography, data input: data capture scanning and digitization and map compilation.

Unit IV Main global positioning systems (NAVSTAR, GLONASS and BHUVAN), segments and use of global positioning system (GPS).

Recommended Readings:

चुनियाल, डी.डी. 2004: दूरसम्वेदन तथा भौगोलिक सूचना प्रणाली। शारदा पुस्तक प्रकाशन, इलाहबाद।

Cromley, R.G. 1992: Digital Cartography, Prentice Hall, Englewood Cliffs, N.J.

Demers M.N. 1997: Fundamental of Geographic Information Systems. John Wiley & Sons, Inc., New York.

Joseph, G. 2005: Fundamentals of Remote Sensing. Universities Press (India) Private Limited, Hyderabad.

Nag, P. 1992: Thematic Cartography and Remote Sensing, Concept publishing company, New Delhi.

Robinson, A.H., et al 1995: Elements of Cartography. John Wiley & Sons, Inc., New York.

Paper IV (b): Disaster Perception and Management in India (4 Credits)

Unit I Concept of disaster management, its importance, need and scope Hazards, risks, vulnerability and disaster, types of hazards and disasters: manmade and natural, implications of contemporary climate change.

Unit II Monitoring and mitigation: Floods, drought, earthquakes, landslides, cyclones, forest fires and Tsunamis, forest degradation, construction of dams, diversion of river channels, mining and quarrying, haphazard urban growth and unplanned industrialization.

Unit III Disaster perceptions: concept relating to the pre disaster phase, emergency phase and post disaster management, disaster preparedness, Community participation in disaster mitigation and risk reduction.

Unit IV Disasters management mechanism in India: Public awareness, agencies, resources, early warning system, plans, policies, training in disaster management role of NGO, private organizations, army, police and educational institutions.

Recommended Readings

Government of India 2004. Disaster Management in India – A Status Report. Ministry of Home affairs, National Disaster Management Division, New Delhi.

Gupta , K. C. Disaster Management in India. Allied publishers, New Delhi.

Hewitt, K. 1997: Regions of Risk : A Geographical Introduction to Disasters. Longman, London.

Kapur, A. 2010. Vulnerable INDIA – A Geographical Study of Disasters. SAGE Publications India PVT LTD, New Delhi.

Murthy, D B N 2007. Disaster Management: Text and Case Studies. Deep & Deep Publications, New Delhi.

Paraswamam, S. and Unikrishan, P.V. 2000: India Disaster Report, Oxford University Press, New Delhi.

SEMESTER II (M. PHIL)

Paper V: Advanced Economic Geography (6 Credits)

Unit I — Concept and scope of economic geography, dynamics of economic space, uneven development, actors in economic space, development and international politics; resource evaluation and quantitative economic geography, socializing economic life: culture, gender and ethnicity.

Unit II — Agricultural ecology: dry farming and irrigated farming, concept and techniques of delimition of agricultural regions, agricultural efficiency and productivity, crop combination, intensity of cropping and crop diversification.

Unit III — Industrial location schools: the least cost, the transport cost, the market area, marginal profit and behavioural, new trends in industrial geography, industrial regions and methods of delineation.

Unit IV — Resource regionalization, and the limits to growth, sustainable development; decision making process, resources, pattern of spatial organization and network transportation, world economic development, trade blocks and transnational organizations.

Recommended Readings:

Alexander, J.W. 2001. Eeconomic Geography. Pprentice Hall of India, New Delhi.
Chapman, K and Walker, D. 1991. Industrial Location: Principles and Policies. Blackwell, Oxford.
Grigg, D. 1995. An Introduction to Agricultural Geography. Second edition, Routeledge, London.
James, O. W. and Peter, O. M. 1986. Economic Geography. John Wiley and Sons, New York.
Jarret, H. R. 1977. A Geography of Manufacturing. Trans-Atlantic Publishers, London.
Mandal, R. B. 1982. Land Utilization – Theory and Practice. Concept Publishing Company, New Delhi.
Scott, A. J. 1988. New Industrial Spaces. Pion, London
Shafi, M. 2000. Agricultural Geography of South Asia. Macmillan, New Delhi.
Singh J. and Dhillon, S. S 2004: Agricultural geography. Tata Mc-Graw-Hill, New Delhi.
Smith, D. M. 1981. Industrial Location – an economic, geographical analysis. John Wiley, New York.
Tyagi, B. P. 1998. Agricultural Economics and Rural Development. Jai Praksh Nath & Co., Merrut (sixth edition).

Paper VI: Regional Planning and Development (6 Credits)

Unit I — Conceptual and theoretical framework of regional planning; multi-level planning and inter-regional stresses, regional hierarchy, role of geography in spatial planning and preparation of a regional plan; regional planning for regional development: indicators of development, levels of regional development and disparities and strategies for development.

Unit II Geography and sustainable development, development of urban regions and making cities sustainable. Surveys for planning: concept and functions, types of surveys – regional, diagnostic and techno economic.

Unit III Regional planning in India: concept and indicators of development; regional imbalances.; type of regions and methods of regionalization, growth pole and growth centers, special economic zones (SEZs), real estate development in India, delineation of planning regions in India.

UNIT IV Case studies: regional planning in USA (TVA), regional planning in India (DVC and NCR) and regional planning in Netherlands (Polders), role of GIS geographic information system (GIS) in modern regional planning.

Recommended Readings:

Blair, J. P. and Carroll, M. C. 2009. Local Economic Development - Analysis, Practices, and Globalization. Second Edition, SAGE Publications, Inc

Chandna, R. C. 2008: Regional Planning and Development. Third Edition, Kalyani Publishers, Ludhina.

UNCED 1987: Our Common Future. UNCED The Centre for our Common future, Geneva.

Haggett, P. 2001: Geography: A Global Synthesis. Harper and Row, New York.

PAPER VII: ANY ONE OF THE FOLLOWING

(a) Advanced Geomorphology

Unit I Nature and scope of geomorphology, basic geomorphic concepts geomorphic processes: interrelationships, rates and changes, weathering, mass movement, fluvial, glacial, aeolian, marine and sub-surface processes; quantitative analysis of fluvially eroded land forms – basin studies.

Unit II Systematic study of landscapes: the scales of landscape analysis, size of terrestrial relief features, landform as the unit of systematic analysis and differences of structure, process and time; methodological implications for regionalization; isostatic, eustatic and climatic changes in the Pleistocence period, Indian stratigraphy: geomorphic regions of India and morphogenetic morphogenetic regions of Rajasthan

Unit III Quantitative analysis of fluvial eroded land forms – basin studies, concept of land system: controlling factors - regional lithology, past and present regional climates and geomorphic evolution, application of remote sensing in environmental, geomorphologic, soil conservation, erosion, vegetarian, buried channels and resource inventory.

Unit IV Geomorphic mapping: historical background, purpose of geomorphological mapping, development of various types of legend systems, large scale geomorphologic maps and applied geomorphology.

Recommended Readings:

Singh, S. 2007: Geomorphology. Fifth Edition, Prayag Pustak Mandir, Allahabad.
Singh, S. and Dubey, A. 2002: Gully Erosion and Managemnt – Methods and Applications (A Field Manual). New cademic Publishers, Delhi.
Bloom, A. L. 1998: Geomorphology – A Systematic Analysis of Late Cenozoic Landforms. Pearson Education Delhi (First Indian Reprint 2003).
Goudie, A, Anderson, M., Burt, T., Lewin, J., Richards, K., Whalley, B. and Worsley, P. 1990. Geomorphological Techniques. Unwin Hyman, London.
Chorley, R. et al 1984. Geomorphology. Methuen & Co. Ltd., London.
Sharma, H.S. (1980) : Perspective in Geomorphology, International series, Ceoncpet Publishing Company, New Delhi.
Sharma, H.S. & V.S. Kale (2009) : Geomorphology in India. Prayag Publishing Company, Allhabad.

(b) Advanced Biogeography

Unit I Plant and animal ecology, ecosystems, the nature of ecosystems, energy flow in ecosystems, bio-geochemical cycles, ecological populations and communities – the level of equilibrium, ecological succession, homeostasis.

Unit II Factors and ecological assessment for sustainability: interactions among animals and plants, Liebig's law of the minimum, Shelford's law of tolerance, regulatory factors, ecological indicators, ecotones and concept of edge; effect stratification, zonation, food web, reproductive and social activities in plants and animals communities; biodiversity and its depletion: natural and man-induced causes; conservation and management of ecosystems.

Unit III Ecological regulations successions and their divergence, barriers and ecosis in succession; the biome modification in successions, monoclimax and polyclimax theories; paleo – ecology and their evolution; geographical isolation – mechanisms and effects, adaptations and natural selection, biotic resources, pollution and environmental effects space ecology and nuclear radiations.

Unit IV Flora and fauna in India and their development programmes in India. quantitative estimations of biotic populations, random dispersal, variance and standard error; finding significance by chi-square and T – tests.

Recommended Readings:

Kormondy, E.J. Concepts of Ecology, Prentice Hall.
Knight, C.B. Basic Concepts of Ecology, Macmillan
Ipren, J and Fiegel, P. Introduction to Biostatistics, Harper and Raw.
Billings, W.D., Plants and the Ecosystem, Wadsworth, California.
Robinson, H.: Biogeography, Eles, Mc. Donald and Evans London 1982.
Mathur, H.S.: Essentials of Biogeography, Pointer Publishers, Jaipur, 1988.

(c) Advanced Urban Geography

Unit I Nature and scope of urban geography, growth of towns during medieval period, industrial and modern period, main characteristics of the towns of each period; trends of urbanization in the world, trends of urbanization in India since 1901, location, site and situation of towns, growth of urban centres; the towns of Indian desert, challenges of urbanization in India.

Unit II Classification of cities based on functions, size and spacing of cities: rank-size rule; law of the primate city; urban hierarchies; Central Place Theory (Christaller and Lösch).

Unit III Urban land use and functional morphology: functional areas and peri-urban areas; Theories of urban structure (Burgess, Hoyt, Harris and Ullman, Mann, White), development of satelite and dormitory towns, conurbations, urban heat islands and ecosystem services, metropolian regions of Mumbai, Delhi, Kolkata, Chennai, case study of urban morphology of planned city – Jaipur and Chandigarh.

Unit IV Problems of urban development – slums, squatters, water and power supply, transportation, urban housing and spacing, pollution urban environmental – solid waste generation, problems and management crimes, cyber crimes in metropolitan. rural – urban fringe, rural urban linkages, master plan of towns, status of town planning, national commission on urbanization and urban development, national capital region: policy implications, concept and development, policies for urban development.

Recommended Readings:

Ramchandran, R. 1997. Urbanization and Urban Systems in India. Sixth Impression, Oxford University Press, New Delhi.
Dickinson R.E. : City Region and Regionalism (Routledged and Kegon Paul London)
Dikinson R.E. : The West European City (Routledged and Kegon Paul London)
E.W. Burgess : The Geography of the City, The City, University of Chicago Press, 1925.
H. Carter : The Study of Urban Geography, London, Edward, Arnold, 1973.
King, L.J. & Golledge, R.G. : Cites, Space and Behaviour – The Elements of Urban Geography, Prentice Hall, New Jersey, 1978.
Prakasa Rao, V.L.S. : Urbanization in India – Spatial Dimensions, Concept Publishers, 1983.
R.M. Mandal :Urban Geography, Concept Publishing Company, New Delhi.
Singh, R.L. : Banaras – A Study in Urban Geography (Student Friends, Allahabad).

Paper VIII: Dissertation (Compulsory)

Candidates will offer Dissertation on any geographical problem. It is a compulsory paper and research should be based on secondary data. Total pages will not exceed 150.
The candidates are required to submit dissertation within six weeks after the theory examination. It will be examined by a board of two examiners. Three copies of dissertation will be submitted to the University out of which one copy will be returned to the Department/College and one to the supervisor.

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