

**IASE DEEMED UNIVERSITY
GANDHI VIDYA MANDIR,
SARDARSHAHR**

**SYLLABUS
SCHEME OF EXAMINATION AND
COURSES OF STUDY**

Faculty of Arts & Social Sciences
Department of Geography

**PH.D. COURSE-WORK
2016-17**

Ph.D. Course Work 2016-17

Sub : Geography

Important points to be noted:

Duration of Course Work : One Semester (6 Months)

Total Marks : 200 (Four papers 50 Marks Each)

Passing marks will be: 40 %.

Duration of Examination: 2 Hrs. for each paper

Paper I: Research Methodology	: 50 Marks
Paper II: Subject paper -I	: 50 Marks
Paper III : Subject paper – II	:50 Marks
Paper IV: Review of literature	:50 Marks

Subject Course Work: 100 Marks (2 Hrs.)

Examination will be held at the end of the Semester.

Total Lecture Hour (periods) for Paper II (elective units): 60 (sixty).

Scheme of Examination of Ph.D. (Course Work) Examination

Paper No.	Nomenclature of the Paper	Internal Assessment	Theory (Written Exam)	Max. Marks	Lectures (One hour per lecture)
Paper I	Research Methodology	-	50	50	25
Paper II (Subject)	Subject Paper – I	-	50	50	25
Paper III (Subject)	Subject Paper – I	-	50	50	25
Paper IV	Review of Literature	50	-	50	25

Paper No.	Nomenclature of the Paper	Internal Assessment	Theory (Written Exam)	Max. Marks	Lectures (One hour per lecture)
Paper III (Subject)	Research Methodology	-	50	50	25

Paper-I – Research Methodology

Unit - 1

1.Introduction to Research Methodology: Meaning, Objectives, Significance, Types

2.Research Problem: Definition, testing and procedures

Unit-2

1.Hypothesis: Definition, testing and procedures

2.Research Design/Plan: Meaning, need and features, Basic principle of experimental signs

Unit-3

1.Data collection/data analysis: Tools for data collection

2.Statistical Applications: Mean, Median, Mode, Mean Deviation & Standard deviation, Correlation and Regression, Probability distributions ,chi square test, z test, t test, two sample t test, paired-t test

Unit- 4

1.Report Writing: Types of Reports, Research Report Format, Referencing, Bibliography, Appendices

2.Computer Applications: Fundamentals of Computers, Operating systems, use of software (MS-Office,SPSS)

Unit-5

1.Safety and safety measures: Introduction, safety of individuals/laboratory/community/Environment

2.Code of Ethics/ethics of research/good laboratory practices: IPR and record keeping/archives

References:

1. Methodology of Research in Social Sciences by O. R. Krishnaswamy and M. Rangnatham Himalaya publication House, 2005, ISBN: 8184880936
2. .Research Methodology: Methods and Techniques by C. R. Kothari, New Age International Publishers, ISBN:81-224-1522-9

3. Statistical Methods for Research Workers by Fisher R. A., Cosmo Publications, New Delhi
ISBN:81-307-0128- 6
4. Design and Analysis of Experiments by Montgomery D.C. (2001), John Wiley, ISBN:
0471260088
5. SPSS online manual
6. MINITAB online manual

Paper No.	Nomenclature of the Paper	Internal Assessment	Theory (Written Exam)	Max. Marks	Lectures (One hour per lecture)
Paper II (Subject)	Subject Paper – I	-	50	50	25

Geography Course Work Paper - II

Unit - 1

Geomorphology : Fundamental concepts; Factors controlling landform development, Endogenetic and Exogenetic forces; Denudation process, weathering and erosion; Geosynclines, mountain building, continental drift and plate tectonics; Concept of geomorphic cycle; Landforms associated with fluvial, glacial, arid, coastal and karst cycles, Slope forms and processes, Environmental and Applied Geomorphology.

Unit - II

Climatology : Composition and structure of the atmosphere; Heat budget of the earth; Distribution of temperature; Atmospheric pressure and general circulation of winds; Monsoon and jet stream; Stability and instability of the atmosphere, Air-masses, Fronts, temperate and tropical cyclones; Types and distribution of precipitation, Classification of world climates; Koppen's and Thornthwaite's schemes, Hydrological Cycle; Global warming.

Unit - III

Oceanography : Origin of Ocean basins; Bottom relief of Indian, Atlantic and Pacific Oceans; Ocean deposits; Coral reefs; Temperature and salinity of the oceans; Density of sea water; Tides and ocean currents; Sea-level changes.

Bio-Geography : Physical factors influencing world distribution of plants and animals; forms and functions of ecosystem : Forest, grassland, marine and mountain ecosystem; Bio-diversity and its depletion through natural and man induced causes; Conservation and management of ecosystems; Environmental hazards and problems of pollution; Ozone depletion.

Unit - IV

History of Geographic Thought : General character of Geographic knowledge during the ancient and medieval period; Foundations of Modern Geography, Contribution of German, French, British and American schools; Conceptual and methodological developments during the 20th century; Changing paradigms; man and Environment, Determinism and possibilism; Areal differentiation and spatial.

Unit - V

Population Geography : Nature, Scope, Subject matter and recent trends; Patterns of world distribution, growth and density of population; Policy issues Patterns and processes of migration, Demographic transition; Population-resource regions.

Paper No.	Nomenclature of the Paper	Internal Assessment	Theory (Written Exam)	Max. Marks	Lectures (One hour per lecture)
Paper III (Subject)	Subject Paper – II	-	50	50	25

Geography Course Work Paper – III

Unit - I

Economic Geography : Location of economic activities and spatial organization of economics, Classification of economics, Sectors of economy : primary, secondary, tertiary and quaternary; Natural resources; Renewable and non-renewable, Conservation of resources.

Agricultural Geography : Concept and techniques of delimitation of agricultural regions, Measurement of agricultural productivity and efficiency; Crop combination and diversification; Von Thunen's Model; Agricultural systems of the world.

Unit - II

Regional Planning : Regional concept in Geography; its application to planning regions; Concept of planning region; Regional hierarchy, Types of regions and Methods of regional delineation; Conceptual and theoretical framework of Regional planning; Regional planning in India; Concept of development; Indicators of development; Regional imbalances.

Unit - III

Geography of India : Physiographic divisions Climate : Its regional variations; Vegetation types and vegetation regions; Major soil types; Coastal and Marine resources; water resources; Irrigation; agriculture; Agroclimatic regions Mineral and power resources; major industries and industrial regions; Population distribution and growth; Settlement patterns; Regional disparities in social and economic development.

Unit - IV

Cartography : Map as a tool in Geographical studies; Types of maps : Techniques for the study of spatial patterns of distribution; Single purpose and composite maps; Choropleth; Isopleth and Chorochromatic maps and pie diagrams; Mapping of location-specific data; Accessibility and flow maps.

Remote sensing and computer application in mapping; Digital mapping; Geographic Information System (GIS), Thematic maps.

Statistical Methods : Data sources and types of data; Statistical diagrams, study of Frequency distribution and cumulative frequency : Measures of central tendency; Selection of class intervals for mapping; Measures of dispersion (Simple index of dispersion) and concentration (Bernard's index of

concentration; Standard deviation; Lorenz Curve; Methods of measuring associations among different attributes; Simple and Multiple correlation; Regression.

Unit - V

Meaning and Significance of research, Types and objective of research, Research process, research approaches, defining the research problems, problems of geographic research; formulation of research schemes; role and significance of research bodies and funding agencies to assist research design; hypothesis; theory and scientific law; preparing a research project; writing a research report.

Books Recommended

Geomorphology

- Agrawal, A. et al. : The Citizen's Fifth Report. Centre for Science and Environment, New Delhi, 1999.
- Ahmed, E. : Coastal Geomorphology of India, New Delhi.
- Cotton, C.A. : Geomorphology, John Willey & Sons, New York.
- Dayal, P. : A Textbook of Geomorphology, Shukla Book Depot, Patna, 1996.
- Holmes, A. : Principles of Physical Geology, Nelson, 1978.
- Jefferys, H. : The Earth - Its Origin, History and Physical Constitution.
- Kale, V. and Gupta, A. : Element of Geomorphology, Oxford University Press, Calcutta, 2001.
- King and Embleton, C.A.M. : Glacial and Pre-Glacial Geomorphology, Edward Arnold, London, 1975.
- Lobeck, A.K. : Geomorphology, McGraw Hill Book Co., New York, 1939.
- Monkhouse, F.J. : Principles of Physical Geography, Hodder and Stoughton, London, 1960.
- Pitty, A.F. : Introduction of Geomorphology, Methuen, London, 1974.
- Sharma, R.C. and Vatal M. : Oceanography for Geographers, Chetanya Publishing House, Allahabad, 1970
- Singh, S. : Geomorphology, Prayag Publication, Allahabad, 1988
- Singh, Savindra : Physical Geography, PrayagPustakBhawan, Allahabad.
- Small, R.J. : The Study of Landforms, McGraw Hill, New York, 1985
- Streets, J.A. : The Unstable Earth, Kalyani Publishers, New Delhi.
- Strahler, A.N. : and Strahler, A.H. Modern Physical Geography, John Wiley, Revised Edition, 1992.

Strahler, A.N. : Earth Science, Harper and Row Publishers, New York.

Thornbury, W.D. : Principles of Geomorphology, John Willey, New York, 1960

Thurman, H.B. : Introductory Oceanography, Charels Webber, E.Merril Publishing Co. 1984.

Paper No.	Nomenclature of the Paper	Internal Assessment	Theory (Written Exam)	Max. Marks	Lectures (One hour per lecture)
Paper IV (Subject)	Review of Literature	50	-	50	25

PAPER – IV

Review of literature.