

IASE Deemed University
Gandhi Vidya Mandir, Sardarshahr
Combined Entrance Test for M.Phil./Ph.D. : 2012-13

Duration: 2 Hours

Written test:

Max. Marks : 300

Viva-Voce:

Max. Marks : 30

SYLLABUS

The question paper will contain 100 Multiple Choice Questions of 3 marks each. Answers will be made on OMR sheet. Question papers in Science subjects will be in English and rest, other than those of languages, will be both in English and Hindi.

Geography

- *Equal weightage will be given to research methodology and conceptual knowledge of the subject.*
- 1. **Geomorphology** : Fundamental concepts; Endogenetic and Exogenetic forces; Denudation and weathering; Geosynclines, continental drift and plate tectonics; Concept of geomorphic cycle; Landforms associated with fluvial, glacial, arid, coastal and karst cycles.
- 2. **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; Tropical and temperate cyclones; Classification of world climates; Koppen's and Thornthwaite's schemes.
- 3. **Oceanography** : Ocean deposits; Coral reefs; Temperature and salinity of the oceans; Density of sea water; Tides and ocean currents.
Bio-Geography : World distribution of plants and animals; Forms and functions of ecosystem; conservation and management of ecosystems; Problems of pollution.
- 4. **Geographic Thought** : General character of Geographic knowledge during the ancient and medieval period; Foundations of Modern Geography, Determinism and possibilism; Neo-determinism, Areal differentiation and spatial organization.
- 5. **Population Geography** : Patterns of world distribution; Growth and density of population; Patterns and processes of migration; Demographic transition.
Settlement Geography : Site, situation, types, size, spacing and internal morphology of rural and urban settlements; City-region; Primate city; Rank-size rule, Settlement hierarchy, Christaller's Central Place theory; August Losch's theory of market centres.
- 6. **Economic Geography** : Sectors of economy : primary, secondary, tertiary and quaternary; Quinary; Natural resources; renewable and non-renewable.
Measurement of agricultural productivity and efficiency; Crop combination and diversification; Von Thunen's Model.

Classification of industries : Weber's and Losch's approaches; Resource based and footloose industries.

7. Political Geography : Heartland and Rimland theories; Boundaries and frontiers; Nature of administrative areas and Geography of public policy and finance.

Social Geography : Ethnicity; tribe; dialect; language, caste and religion; Concept of social well-being.

Cultural Geography : Cultural areas and cultural regions; Human races; Habitat; Economy and Society of tribal groups.

8. Regional Planning : Regional concept in Geography; Concept of planning regions; Types of regions; Methods of regional delineation; Regional planning in India; Indicators of development; Regional imbalances; Evolution, nature and scope of town planning with special reference to India, and Fundamentals of Town and Country planning.

9. Geography of India : Physiographic divisions' Climate : Its regional variations; Vegetation types and vegetation regions; Major soil types; Irrigation and agriculture; Population distribution and growth; Settlement patterns; Mineral and power resources; major industries and industrial regions.

10. Cartography : Types of maps : Techniques for the study of spatial patterns of distribution; Choropleth; Isopleth and Chorochromatic maps and pie diagrams; Mapping of location-specific data; Accessibility and flow maps.

Statistical Methods : Data sources and types of data; Frequency distribution and cumulative frequency : Measures of central tendency; Selection of class intervals for mapping; Measures of dispersion and concentration; Standard deviation; Lorenz Curve; Methods of measuring associations among different attributes; Simple and Multiple correlation; Regression. Nearest-neighbour analysis; Scaling techniques; Rank score; Weighted score; Sampling techniques for Geographical analysis.

Definition, scope and process of research, Types and design of research, Role and significance of research bodies and funding agencies to assist research work. Problems of geographic research, formulation of research schemes and research projects, hypothesis.

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.

Climatology and Oceanography

Barry, R.G. and Chorley, P.J. : Atmosphere, Weather and Climate, Routledge, London and New York, 1998.
Critchfield, J.H. : General Climatology, Prentice Hall, India, New Delhi, 1993.
Garrison, T. : Oceanography - An Introduction to Marine Science, Books Cole, Pacific Grove, USA, 2001.
Lal, D.S. : Climatology, Chaitanya Publications, Allahabad, 1986.
Peterson, S. : Introduction to Meteorology, McGraw Hill Book, London, 1969.
Sharma, R.C. and Vatal, M. : Oceanography for Geographers, Chaitanya Publishing House, Allahabad, 1992.
Trewartha, G.T. : An Introduction to Climate, McGraw, 1968.

Bio Geography

Huggett, R.J. : Fundamentals of Biogeography, Routledge, USA, 1998.
Mathur, H.S.: Essentials of Biogeography, Anuj Printers, Jaipur, 1998.
Newbegin : Plant and Animal Geography
Pears, N. : Basic Biogeography, II ed., Longman, London, 1985.
Robinson, H. : Biogeography, Mcdonald and Evans, London, 1982.
Seddon, B. : Biogeography, Duckworth, London, 1971.
Simmon, I.G. : Biogeography, Natural and Cultural, Longman, London, 1974.

Geographical Thought

Adhikari, Sudepta : Fundamentals of Geographical Thought, Chaitanya Publishing Hosue, Allahabad, 1992.
Ali, S.M. : The Geography of Puranas, Peoples Publishing House, Delhi, 1966.
Dickinson, Robert E. : The Makers of Modern Geography, Roultedge and Kegan Paul, London, 1969.
Dikshit, R.D. (ed.) : The Art & Science of Geography Integrated Readings, Prentice Hall of India, New Delhi, 1994.
Dikshit, R.D. : Geographical Thought - A Contextual History of Ideas, Prentice Hall of India Pvt. Ltd.
Doi, R.D. : Geographic Thought - A Spectrum of Compilation to coherence, Univ. Book House, Jairpur, 2002.
G.Taylor (ed.) : Geography in Twentieth Century, Methuen, London
Hagget, P. : Geography - A Modern Synthesis, Harper and Row, New York, 1972.

Geography of Population & Settlement

Bogue, D.J. : Principles in Demography, John Wiley, New York, 1969
Census of India : India - A State Profile, 1991.
Chandna, R.C. Geography of Population : Concept, Determinants and Patterns, Kalyani Publishers, New Delhi, 2000.
Chisolm : Rural Settlement and Landuse.
Clarke, John I. : Population Geography, Pergamon Press, Oxford, 1973.
Garnier, B.J. : Geography of Population, Longman, London, 1970.
Hudson, E.S. : Geography of Settlement.
Jones : A Population Geography.

Economic Geography

- Alexander, John, W. : Economic Geography, Prentice Hall of India Ltd., New Delhi, 1988.
- Alexanderson, C. : Geography of Manufacturing, Prentice Hall, Bombay, 1967.
- Allen, J.L. : Students Atlas of Environmental Issues, Dushkin Pub., 1997.
- B.B.S. Kapoor and Ahmed Ali : Sustainable Resource Management, Madhu Publications, Bikaner.
- B.B.S. Kapoor, Ahmed Ali *et al.* : Current Environmental Issues, Madhu Publications, Bikaner.
- Dreze, J. and Sen, A. : India - Economic Development and Social Opportunity, Oxford University Press, New Delhi, 1996.
- Estall, R.C. and Buchanan R.O. : Industrial Activity & Economic Geography, Hutchinson & Co., London.
- Ghose, B.C. : Industrial Location.
- Global Environment Outlook. Earthscan., London, 2000.
- Guha, J.L. & Chattoraj, P.R. : A New Approach to Economic Geography. World Press, Kolkatta.
- Hartshorn, T.A. and Alexander, J.W. Economic Geography, Prentice Hall, New Delhi, 2000.
- Hodder, B.W. and Lee, Roger : Economic Geography, St. Martin's Press, New York, 1974.
- Hoover, E.M. : The location of Economic Activitiy, McGraw Hill Books Co., New York.
- Isard, W. : Methods of Regional Analysis, The Technology Press, of MIT and John Wiley, New York, 1956.
- Jones, C.F. and Darkenwald, G.G. : Economic Geography, McMillan Co., New York, 1975.
- K.Siddartha : Economic Geography, Kisalaya Publication Pvt. Ltd., Noida, New Delhi.
- Leong, G.C. and Morgen, G.C. : Human & Economic Geography, Oxford University Press, London, 1982.
- Llyod, Peter E. and Dicken, P. : Location in space : A Theoretical Approach to Economic Geography, Harper and Row, New York, 1972.
- Mc Carty, H.H. and James, B. Lindberg : A Preface to Economic Geography, Englewood Cliffs, Prentice Hall, 1966.
- Miller, E. : A Geography of Manufacturing, Prentice Hall, Englewood Cliffs, New Jersey, 1962.
- Renner, T.H. & Other : World Economic Geography.
- Riley, R.C. : Industrial Geography, Chatto and Windus, London, 1973.
- Robertson, D. (ed.) : Globalization and Environment, E. Elgar Co. U.K., 2001.
- Robinson, A.H. et al. : Elements of Geography, John Willey, New York, 1995.
- Robinson, H. : Economic Geography, M.Sc. Donald London.
- Smith, J.C. and Phillip, M.O. : Industrial and Commercial Geography, Henry Halt.
- Strahler, A.N. : Geography and Man's Environment, John Willey, New York, 1976.
- Thoman, R.S. : The Geography of Economic Activity, McGraw Hill, New York, 1962.
- Wheeler, J.O. : Economic Geography, John Willey, New York, 1995.
- Zimmermann, E.W. : World Resources and Industries, Harper and Co., New York.

Political Geography

- Alexander, I.M. : World Political Patterns, John Murray and Co., London, 1966.
- Bownman, I. : The New World Problems in Political Geography, World Book Co., New York.
- De Blij H.J. and Glassner, Martin :: Systematic Political Geography, John Willey, New York, 1968.
- Deshpande, C.D. : India - A Regional Interpretation, Northern Book Centre, New Delhi, 1992.

Dikshit, R.D. : Political Geography - A Contemporary Perspective, Tata McGraw Hill Publishing Co. Ltd., New Delhi, 1982.

East, W.G. and Spate, O.H.K. : The Changing Map of Asia, Methuen, London, 1966.

Hartshorne, R. : The Functional Approach in Political Geography, A.A.A.G. Vol. 40, 1950.

Moodie, A.E. : Geography Behind Politics, Hutchinson University Library, London, Latest edition.

Pounds, N.J.G. : Political Geography, McGraw Hill, New York, 1972.

Prescott, J.R.V. : The Geography of Frontiers and Boundaries, Aldine, Chicago.

Social Geography

Ahmad, Aijazuddin : Social Geography, Rawat Publication, New Delhi, 1999.

De Blij, H.D. : Human Geography, John Wiley and Son, New York.

Dreze Jean, Amartya Sen : Economic Development and Social Opportunity, Oxford University Press, New Delhi, 1996.

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

Gregory, D. and J. Larry (eds.) : Social Relations and Spatial Structures, McMillan, 1985.

Cultural Geography

Broek, J.C. and Webb, J.W. : A Geography of Mankind, McGraw Hill, New York, 1978.

Crang, Mike : Cultural Geography, Routledge Publications, London, 1998.

Harmandorf : Tribes of India : The Struggle of Survival, Oxford University Press, Delhi, 1989.

Hazra (ed.) : Dimensions in Human Geography, Rawat Publications, Jaipur, 1997.

Hutchinson, and Smith, D. : Ethnicity, Oxford University Press, Oxford, 1996.

Jordon, & Lester, G. : The Human Mosaic, Harpar & Row, New York, 1979.

Massey, D. & Jess, P. : A Place in the World : Places, Cultures and Globalization, Oxford University, New York, 1995.

Massey, et al. (ed.) : Human Geography Today, Polity Press, Cambridge, 1999.

Mukherjee, A.B. and Aijazuddin, A. : India - Culture, Society and Economy, Inter-India Publication, New Delhi, 1985.

Regional Planning

Abler, R. et al. : Spatial Organization : The Geographer's View of the World, Prentice Hall, Englewood Cliffs, N.J., 1971.

Bhat, L.S. : Regional Planning in India, Statistical Publishing Society, Calcutta, 1973.

Bhat, L.S. et al. : Micro-Level Planning : A Case Study of Karnal Area, Haryana, K.B. Publications, New Delhi, 1976.

Chorley, R.J. and Hagget, P. : Models in Geography, Methuen, London, 1967.

Christaller, W. : Central Places in Southern Germany, Translated by C.W. Baskin, Prentice Hall, Englewood Cliffs, New Jersey, 1966.

Friedmann, J. and Alonso, W. : Regional Development and Planning - A Reader, M.I.T. Press, Cambridge, Mass, 1967.

Friedmann, J. and Alonso, W. : Regional Development Policy - A Case Study of Venezuela, M.I.T. Press Cambridge, Mass, 1966.

Glikson, Arthur : Regional Planning and Development, Netherlands Universities Foundation for International Co-operation, London, 1955.

Gosal, G.S. and Krishan, G. : Regional Disparities in Levels of Socio-Economic Development in Punjab, Vishal Publications, Kurukshetra, 1984.

Geography of India

Deshpande C.D.: India-A Regional Interpretation, Northern Book Centre, New Delhi, 1992.

Farmer, B.H. : An Introduction to South Asia. Methuen, London, 1983.

Govt. of India : India – Reference Annual, 2001, Pub. Div. New Delhi, 2001

Govt. of India: National Atlas of India, NATMO Publication, Calcutta.

Govt. of India: The Gazetteer of India. Vol. I & III Publication Division, New Delhi, 1965.

Learmonth, A.T. A. et.al. (ed.) : Man and Land of South Asia Concept, New Delhi.

Mitra, A.: Levels of Regional Development India Census of India, Vol. I, Part I-A(i) and (ii) New Delhi, 1967.

Routray, J.K.: Geography of Regional Disparity Asian Institute of Technology, Bangkok, 1993.

Shafi, M: Geography of South Asia, McMillan & Co., Calcutta, 2000.

Singh, R.L. (ed.): India: A Regional Geography. National Geographical Society. India, Varanasi, 1971.

Spate, O.H.K. and Learmonth, A.T.A.; India and Pakistan - Land, People and Economy Methuen & Co., London, 1967.

Valdiya, K.S.: Dynamic Himalaya, University Press, Hyderabad, 1998.

Wadia, D.N.: Geology of India. McMillan & Co., London, 1967.

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Gregory S : Statistical Methods and the Geographer. Longman S. London, 1963 geography.

Khan, Z.A.: Text Book of Practical Geography Concept, New Delhi 1998.

Lawrence, G.R.R: Cartographic methods, Methuen, London, 1968.

Monkhouse, F.J. & Wilkinson, H.R.: Maps and Diagrams. Methuen, London, 1994.

Pal, S.K. Statistics for geoscientists - Techniques and Applications, Concept, New Delhi, 1998.

Sarkar, A.K.: Practical Geography- A Systematic Approach Orient Longman, Calcutta, 1997.

Singh, R.L.-.Elements of Practical Geography, Kalyani Pub., New Delhi.

Steers, J.A.: Map Projections. University of London Press, London.

Statistical Geography

Gregory S. : Statistical Methods and the Geographer, Longman, London, 1978.

Growson & Cowden : Applied General Statistics, Prentice Hall.

Hagget, P. : Locational Analysis in Human Geographical Studies, Sanjay Enterprises, New Delhi.

John Silk : Statistical Concepts in Geography, George Allen and Unwin, London.

Johnston, R.J. : Multivariate Statistical Analysis in Geography, Longman, London, 1973.

King T.J. : Statistical Analysis in Geography, Prentice Hall.

Mahmood, A.: Statistical methods in Geographical Studies, Rajesh Publication, New Delhi, 1977.