

Shivaji University, Kolhapur

SYLLABUS FOR Pre PhD

Department of Geography

Paper I

RESEARCH METHODOLOGY, QUANTITATIVE TECHNIQUES, COMPUTER  
APPLICATION

Research Methodology: Sources and types of data. Methods of data collection. Sampling techniques. Hypothesis and its types. Research design. Writing of research report.

Quantitative techniques: Measures of central tendency: mean, mode, median, quartile deviation, standard deviation. Measures of dispersion: coefficient of variation, Lorenz curve, and Gini's concentration of coefficient. Measurement of Growth, and estimation of population or other phenomena. Correlation analysis and test of significance: correlation coefficient, T test, Chi square test, regression analysis. Methods of Regionalization: choice of indicators and measurement of development.

Computer applications in geography

Remote sensing: fundamentals and application in research

GIS: mapping, data storage and analysis

Surveying: with advance techniques

References:

- Arora P. N. & Arora S (1994): Foundation Course in Statistics, S. Chand and Company Ltd, New Delhi.
- Aslam Mehmood (1976): Statistical Techniques in Geographical studies, Rajesh Publication, New Delhi.
- Durrenberger, R. W. (1971): Geographical Research and Writing, Thomas Y. Cromwell & Co. New York
- Gibbs, J. P (ed) (1966): Urban Research Methods, D Van Nostrand Co., Inc Princeton, New Jersey, New York.
- Gregory, S. (1963): Statistical Methods and the Geographer, Longman, London
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- Hammond, R.& Mc Cullagh P.(1974): Quantitative Techniques in Geography Clarendon Press, Oxford.
- Haring, L. L. & Loundbury, J. F. (1975): Introduction to Scientific Geographic Research. W.C.Brow Company,U.S.A
- Haring, Lloyed(1975): Scientific Geographic Research . W.C.Brow Company,U.S.A
- Kothari, C.R.(1996): Research Methodology, Vishwas Prakashan, New Delhi.
- Lillesand & Kiefer (1994): Remote Sensing and Image Interpretation, John Wiley and sons Inc, New York
- Mishra, R.P.(1991) : Research Methodology in Geography, Concept Publising, New Delhi.
- Pugh, Griffith Thomoson (1968): Guide to Research Writing, Houghton Mifflin Boston, New York.
- Saha, P. & Basu, P. (2006) : Advanced Practical Geography, Books and allied Pvt. Ltd. Kolkata
- Sarvanavel, P (1998): Research Methodology, Kitab Mahal, Allahbad.

## Paper II

### RECENT TRENDS IN GEOGRAPHY

- Trends of development in Geography in 20<sup>th</sup> Century
- Geography as a study of spatial organization, structure, pattern and Processes.
- Concept of space area, region and basis of regionalization.
- Man - Environmental relationship with reference to determinism and possibilism.
- Kuhn's Paradigms in Geography, Areal Differentiation, Exceptionalism in Geography, Spatial & Locational Analysis.
- Postmodernism, Globalization, Radicalism, Positivism, Behaviouralism in Geography.
- Geography as a scientific discipline, need and significance of models in Geographic Research
- The Emergence of Geography as a Formal Academic Discipline From Varenus to Kant-the reappearance of formal geography.
- Explanations in Geography
  - (i) Cognitive Description
  - (ii) Morphometric Analysis
  - (iii) Cause and Effect Analysis
  - (iv) Temporal Analysis
  - (v) Functional and Ecological Analysis

#### References:

- Chorley, R. J. and Haggett, P (eds) (1967): Models in Geography, Methuen, London.(U.K.)
- Fainstein, Susan S and Compelt, Scot (2002): Readings in Urban Geography (2<sup>nd</sup> Ed.) Blackwell Publishing, Malden, USA. (Social Justice, Postmodernism and the city – David Harugs.)
- Haggett, P. ( 1965) :Locational Analysis in Human Geography, Edward Arnold, London.(U.K.)
- Hart-Jensen, Arild (1988 ) : Geography: History of Concepts, Sage Publications, New Delhi.
- Hartshorn, Richard ( 1939): The Nature of Geography, the Association of American Geographers, USA and Rawat Publications, Jaipur.
- Hartshorne, Richard (1959): Perspective on Nature of Geography, Rand McNally, Chicago, USA.

- Hartshorne, R ( 1958): “ The Concept of Geography as a Science of Space from Kant and Humboldt to Hettner,” *Annals Association of American Geographers*, 48 (2): 97-108.
- Hartshorne, R ( 1955): “Exceptionalism in Geography- Re- examined,” *Annals Association of American Geographers*, 45 205 – 44.
- Harvey, David (1969): *Explanations in Geography*, Edward Arnold, London, UK.
- Harvey, David (1973) : *Social Justice and the City*, Edward Arnold, London, UK.
- Harvey, D (1985) : *The Urbanization of Capital*, Basil Blackwell, Oxford. (U.K)
- Harvey, D (1989) : *The Condition of Post Modernity : An Enquiry into the Origins of Cultural Change*, Basil Blackwell, Oxford.(U.K.)
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- Husain, Majid (2001): *Evolution of Geographical Thought ( Fourth en.)*, Rawat Publications, Jaipur.
- Husain Majid ( 2007): *Models in Geography*, Rawat Publication, Jaipur.
- Johnston, R. J. (1985): *Geography and Geographers Anglo- American Human Geography Since 1945*, Edward Arnold (2nd en.) London,
- Pect, Richard (ed.)(1977): *Radical Geography: Alternative Viewpoints on Contemporary Social Issues*, McThuen, London.
- Pect, Richard & Thrift, N. (eds) (1989): *New Models in Geography: The Political Economy Perspective*, Vol.1, Unwin Hyman, And London.
- Singh, L.R. (2008) *Fundamentals of Human Geography*, Sharda Pustak Bhawan, Allahabad.
- Soja, Edward W.(1997) : *Postmodern Geographies: The Reassertation of Space in Critical Social Theory (Indian en.)* Rawat Publications, Jaipur.
- Unwin, Tim (1992): *The Place of Geography* Longman Scientific & Technical, New York.



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Paper III

Review of Published Research work and Seminar

100 marks

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Paper III (1)

Recent Trends in Agricultural Geography

Unit 1 : Nature and scope of agricultural geography.

Unit 2 : Agricultural geography as aresearch discipline

Unit 3 : Data Sources, approaches and techniques in agricultural Geography.

Unit 4 : Determinants of agricultural Patters – i) Technological Determinants, their Impact on agricultural

Unit 5 : Concept of agricultural region and bases of agricultural regionalization.

Unit 6 : Agricultural system and its basic components.

Unit 7 : Concept of agricultural productivity and efficiency.

Unit 8 : Concepts of land use – i) land utilization, ii) land cover, iii) land capability, iv) methods of land capability, v) land evaluation.

Unit 9 : theories & models in agricultural geography.

Unit 10: Fruit farming in India and problems of agriculture.

REFERENCES:

1. Clout H.D. (1972): Rural Geography, Pergoman press, Oxford.
2. Gilg Andveu (1984): Rural Geography; Edward Arnold, London.
3. Gregor H.F.(1970): Geography of Agriculture; Themes in Research. Prentice – Hall Englewood Cliff. London.
4. Ilbury B.W.(1983) : Agricultural Geography. Oxford University Press, London.
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6. Morgan W.B. (1978): Agriculture in the third world Methuen, London.
7. Morgan W.B. & Mutton R.C.(1971): Agricultural Geography, Methuen,London.
8. Pacione M.(1984): Rural Geography. Harper & row, London.
9. Singh Jasbir & Dhillon S.S.: Agricultural Geography, New Delhi.
10. Tarrant J.R.(1974): Agricultural Geography, Newton,Abbot.
11. Bhatia B.M.(1977) : Poverty Agriculture &Economic Growth, Vikas New Delhi.
12. Chorley & Haggett P.(1971):Socio-Economics Models in Geography, London.Methuen.
13. Forman B.H.(1977): Green Revolution. London, Macmillan.
14. Grigg,D.B.(1973): The Agricultural systems of The World, Cambridge University Press.
15. Hagerstrand, T.(1968): Innovation Diffusion as a spatial process, University of Chicago Press.
16. Hussain Majid (1999):Systematic Agricultural Geography, Rawat publications, Jaipur.(India)
17. Shfi M. (1983): Agricultural Productivity and regional Imbalances a Study of Uttar Pradesh, Concept, New Delhi.
18. Symon, L. (1968): Agricultural Geography, London.
19. Mohammad Noor: Perspective in Agricultural Geography, Six Volume.
20. Shfi M. (1978): Agricultural Productivity and regional Imbalances, concepts. Delhi.

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Paper III (2)

Recent Trends in Economic Geography

Unit 1 : Economic Geography Today – i) Classification of Economic Societies, ii) Different approaches to the study of economic geography.

Unit 2 : Theories of location of economic activities – i) Von Thunen, ii) Alfred Weber, iii) W. Christaller, iv) Reilly's gravitational model.

Unit 3 : Resource – i) Concept ii) Classification, iii) Causes and consequences of environmental degradation.

Unit 4 : Economic Development – i) Concept, ii) Different methods of measurement, iii) Different approaches to promote economic development.

Unit 5: Ullman's trend – i) Connectivity, ii) accessibility of transport networks.

Unit 6 : Commercial activity in cities – stages of suburban development,

- i) location of suburban Business centres, ii) Metropolitan retail structure,
- iii) Shopping center hierarchy, iv) trade analysis.

REFERENCES

1. Alexander J.W. (1976): Economic Geography. Prentice Hall of India. New Delhi.
2. Alexandersson G. (1988): Geography of manufacturing. Prentice Hall of India. New Delhi.
3. Berry, Conkling & Ray (1988): Economic Geography Prentice Hall of India New Jersey.
4. Hurst Elliott (1986): Geography of Economic Behaviour. Unwin, London.
5. Johnson R.J. & Taylor D.J. (1989): A world in crisis. Basil-Blackwell, Oxford.
6. Losch (1954): Economics of Location. Yale University Press New York.
7. Redcliff M. (1987): Development & the environmental crisis. Methuen. London.
8. Sinha B.N.(1971): Industrial geography of India
9. Watts H.D. (1987): Industrial Geography, Longman scientific and Technical New York.
10. Haggett, Peter: Modern Synthesis in Geography.
11. Robinson H & Bamford C. G. (1978): Geography of Transport, Macdonald &

Evans USA.

12. Misra R. P.: Regional Planning, concepts, New Delhi.

13. Jones & Darkenwald : Economic geography.

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Paper III (3)

Recent Trends in Settlement Geography

Unit 1: Nature and Characteristics of Rural Settlements in India

Unit 2: Trends of Urbanisation in Developing Countries

Unit 3: Concepts Approaches and Methodology in Rural Settlement Studies

Unit 4: Development of Rural Settlement Patterns

Unit 5: Role of Rural Service Centres in Rural Development.

Unit 6: World Urban Growth in 20<sup>th</sup> Century

Unit 7: Structure and Scale in the City System

Unit 8: Urban Problems

Unit 9: Growth pole strategy for Urban and Regional Planning

REFERENCES:

1. Alexander J.W.(1991): Economic Geography. Prentice Hall of India. New Delhi.
2. Carter H.(1975):The study of urban geography. Edward Arnold ,London.
3. David Peter & Hopkinson M.(1983): the geography of settlements, Oliver & Boyot,Edin burph.
4. Haggett Peter (1991): Geography a modern synthesis, Harper & Row, New York.
5. Johnston J.H.(1974): Urban Geography, Pergoman Press, Oxford.
6. Johnston R.,J.(1984): City & Society. Unwin hyman, London.
7. King L.J.& Golledge R.G.(1978): Cities, space & Behavior, Prentice Hall, engle wood cliff, New Jersey.
8. Mandal R.B.(2000): Urban Geography, Concept Publishing Co., New Delhi.
9. Mayer H.M. & Cohen (1967): Readings in Urban Geography, Central Book Depot. Allahabad.
10. Northam ray M.(1975): Urban Geography, John Willey & Sons, New York.
11. Ramachandran R.(1991): Urbanization and Urban Systems in India, Oxford Uty. Press. Delhi.
12. Robinson, Brian T.(1973): Urban growth, Mathuen & Company, London.
13. Sidhartha K. and Mukherjee. S.(2000): cities-Urbanizations & Urban Systems. Kisalaya pub. Pvt.Ltd.,New Delhi.
14. Yeates & Garner (1971): Readings in Urban Geography. The North American City. Harper & Row. New York.

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Paper III (4)

Recent Trends in Population Geography

Unit 1: Population Geography and other Discipline i) Approaches to study of population geography

Unit 2: Data Sources and Techniques in Population Geography

Unit 3: Determination of Population Distribution – i) Physical ii) Cultural iii) Cultural factors

Unit 4: Demographic Transition – i) Theories ii) Stages iii) Consequences iv) Space time Dimensions.

Unit 5: Migration – i) Laws and Major International Migration Streams ii) World Population Growth, iii) Food Supply iv) Malnutrition and Hunger

Unit 6: Population Growth and Urbanisation Process

Unit 7: Patterns of Population Change in India during 20<sup>th</sup> Century

REFERENCES:

1. Barrett H.R.(1992): Population Geography, Oliver and Boyd Longman House, Harlow.
2. Bhende Asha & Kanitkar Tara(1975): principles of population Studies,Himalaya Publishing House, Bombay.
3. Chandna,R.C. & Manjit s. Sidhu(1980): Introduction to Population Geography, Kalyani Publishers, New Delhi.
4. Chandana, R.C. (1984): Geography of Population, Kalyani publisher, Ludhiana.
5. Garnier, J.B. (1976): Geography of Population, Longman Group Ltd., London.
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10. Kingsley davis (1951): Population of India and Pakistan, princeton University Press,Princeton.
11. Ravenstein,E(1889):The Laws of Migration,journal,Royal Statistical Society,49,pp241-305.
12. Sinha V.C(1979):Dynamics of India's Population Growth,National Publishing House,New Delhi.
13. Smith,T.L)1960): Fundamental of Population Studies, Lipineott, London.

14. Trewartha, G.T. (1959): A Geography of Population; World patterns, John Wiley & Sons Inc. New York.
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17. Zelinsky, W (1966): A Prologue of Population Geography, Prentice Hall Inc, M.J.
18. Sawant & Athawale A. S. : Population Geography, Mehta Kolhapur.

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Paper III (5)

Recent Trends in Tourism Geography

Unit 1: Nature Scope and Significance of Tourism Geography

Unit 2: Concept of Tourism – i) Types of Tourism ii) Dynamics

Unit 3: Determination of Tourism Patterns in India with Special Reference to Maharashtra

Unit 4: Role of Tourism in the Changing Economy of India

Unit 5: Marketing Tourism Concept i) Segmentation ii) Planning

Unit 6: Impact of Tourism – Environmental and Socio – Cultural

Unit 7: Tourism Promotional Policies and Programmes in India.

Unit 8: Transportation Systems and their Role in the Growth of Tourism

REFERENCES :

- 1 Bhatia A.K.(1978): Tourism in India. Sterling pub. New Delhi.
- 2 Burkarl, A.J.(1974): Tourism, Past, present and future Heineman London.
- 3 Gearing Charles, E (1976): planning for Tourism development Praeger Pub, New York
- 4 Lawbon, F & Bauet B.(1977): Tourism and recreation Development mass, CBI pub.
- 5 Lundberg, D.E.)1996): The Tourist Business cehners Books. Internationa, Boston.
- 6 Robinson H.(1976): A geography of Tourism. Mac Donald and Evans Ltd; London.
- 7 Douglas Pearce (1981): Topics in Applied Geography, Tourist Development. Longman london New York.
- 8 Stephen L.J. smoth(1989): tourism Analysis : A Handbook- Longman Scientific of Telchnical.
- 9 Ministry of Tourism Govt. of India (1992): Report on National Action Plan on Tourism, New Delhi.
- 10 Minstry of tourism Govt.of India (1996): Report on National strategy for development of tourism New Delhi.
- 11 Minstry of Tourism Govt. of India (1999): Report on National Tourism . Policy in India. New Delhi.

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Paper III (6)

Recent Trends in Medical Geography

Unit 1. : Ecological Approach to Medical Geography

Unit 2: Environmental Hazards and Human Health – A Global Perspectives

Unit 3: Classification and Measurement System of Disease

Unit 4: The Patterns of Infectious Disease in Developing Countries

Unit 5: The Concept of Nutrition and Human Health.

Unit 6: Health Care Delivery System in India

Unit 7: Application of Geo – coding Systems in Medical Geography

Unit 8: The Impact of Geographical Factors in the Incidence of Major Disease in Developing Countries

Unit 9: The Role of World Health Organisation in the Eradication of Disease in the World

REFERENCES :

1. Woods E.J. (1983): Social Geography of Medicine & health, CroonHelm London.
2. Learmonth ATA (1978): Patterns of Disease & Hunger, V Parid Chorles, London.
3. Hussain Majid (1994): Medical Geography, Anmol pub. New Delhi.
4. McGlashan N.D.(1972)Medical Geography, Methen, London.
5. McGlashan N.D. & B'unden Y.R. (1983): Geographical Aspects of health Academic press, London.
6. Philips D.R.(1981): Contemporary issues in Geography of health Case - GeoBooks, Norwick.
7. Pyle G.F. (1979): Applied Medical Geography John wifey washington.
8. Shannon G.W. & Dever G.E.A.(1974): Health care Delivery McGraw Hill New York.

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Paper III (7)

Recent Trends in physical Geography

Unit I

Meaning of geomorphology and Development of geomorphic thought, Earth's interior, Earthquakes, Volcanoes and associated features, Evolution of continents and Ocean basins- Continental drift and plate tectonics. Applied geomorphology and recent trends in geomorphology.

Unit II

Atmosphere, Composition & Structure, Distribution of Temperature, Vertical & Horizontal. Pressure belts & planetary winds, Mechanism of Monsoon, Types of air masses. Atmospheric Disturbances, Classification of Climate according to Koppen & Thornthwaite, Droughts, irrigation scheduling Agroclimatic regions of India. Urban climate & heat island, Air Pollution, Global warming, Ozone layer depletion. Causes & effects recent climatic Changes.

Unit III

Biogeography: Nature, Scope & Significance, Elements of Biogeography with special reference to India. Plant & Animal Classification. Zoogeography, Distribution of major animal groupings in the world, Zoogeography of India, Environmental Control on selection of animals, Animal dispersal & migration, Ecosystems forms & functions, Marine, freshwater, Salt marsh & mountain ecosystems, Conservation & management of ecosystem,

Unit IV

Hydrological cycle, surface & subsurface water resources, Occurrence of groundwater. Movement of Groundwater, Problems Salinity, Alkalinity, Water logging, Water Pollution. Conservation & planning for the development of water resources. Ocean Basin topography: continental shelf, continental slope, abyssal plain & Ocean deep, Submarine Hills, ridges & Trenches. Bottom Relief of Indian, Atlantic & Pacific oceans. Heat Budget of ocean, Distribution of temperature & Salinity. Ocean circulation: Factors affecting ocean currents, currents of Atlantic, Pacific & Indian Ocean, EL. Nino. La Nino. Man and Oceans: Oceans as a storehouse of mineral & food resources.

Unit V

Meaning & Application of remote sensing. Fundamentals of remote sensing: EMR & its interaction with matter & atmosphere, Sensors & platforms. Thermal & Microwave remote sensing, Use of meteorological satellites. Aerial photography: Introduction to Aerial Cameras & image quality, Types of aerial photographs; Impact of season & time of flight planning. Elements of photo image recognition. Mapping of Landuse / Landforms; interpretation of rock types & soil, cultural features natural hazards & water resources. Basic concept of Geographical Information System.

#### REFERENCES:

1. Avery T.E. & G.L. Berlin (1992): Fundamentals of Remote sensing & Air photo-
2. Barry C. (1977) : Biogeography – An ecological & evolutionary Approach, Oxford, basis of Geography,. Longmans Green, London. Book Co., New York.
3. Campbell, J.B. (1987): Introduction to Remote sensing Guilfor, New York, USA.
4. Chorley R.J.(1967): Introduction to Geographical Hydrology, Methuen, London.
5. Christopherson, R.W. (1995) Elemental Geosystems : A Foundation in Physical Co.New York.
6. Cole M.M.(1975): Recent developments in Biogeography, Longman,London.
7. Dayal. P, (1996) : A Textbook of Geomorphology, Shukla Book Depot, Patna. Delhi.edition,
- Fairbridge, R.W. (1968) (ed): Encyclopaedia of Geomorphology Reinhold, New Geography, Prentice Hall Englewood Cliffs, New Jersey.
8. Hobbs J.E. (1980) : Applied Climatology, Butterworth, London Interpretation third edition , John Wiley & Sons, Inc New York, USA. Interpretation,. 514 Ed. Macmillan, New York, USA. Jaipur (India)
9. Joseph, w. & Howard, P: Introductory oceanography, McGraw Hill. Kogakusha, Ltd.,
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14. Morgan R.S. & Wooldridge S.W (1959): Outline of Geomorphology the Physical
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18. Peter K.W. (1970): Oceanography: An Introduction to the marine Environment, John
19. Robinson, A.H & Sale R.D.: Elements of Cartography. Johns House & Sons,
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scientific publications compuring, Amsterdam, The Netherland.
23. Sellers W.D : “Physical Climatology”University of Chicago Press. 1965
24. Sharma R.C. (1970): Oceanography for Geographers, Chaitanya publishing house,
25. Simmms T. G.: Biogeography, Natural & Cultural, Arnold & Heinemann, London.
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