

## SEMESTER - 1

### Course -1 Research Methodology

#### Aim of the Course

To introduce a research aptitude among young geographers.

#### Objectives of the Course

- \* To give Researchers a general understanding of the Methodology of Geography.
- \* To enable the scholars to know the Fundamental theory of research .
- \* To strengthen the need of Interdisciplinary Research.
- \* To inculcate the role of Case study analysis in the Methodology of Geography.
- \* To understand the value of Field work and the preparation of Thematic maps in Geographical Research.

**Module -1** Research : Meaning , Types and Methods- Fundamental theoretical research – Empirical, Diagnostic and action oriented research.

Need for Scientific Research ; Approaches to Geographical Research -Inter-disciplinary , trans –disciplinary and multi- disciplinary.

**Module - 2** Concepts in Research : Hypothesis - Types, Characteristics and functions, Formulation and testing of Hypothesis .

**Module - 3** Research Design : Identification and Selection of problem-Collection of Data - Techniques of primary and secondary data collection, Construction of Schedules , Need of pilot study .

**Module - 4** Case study approach in Geographical Research – Selection of case studies , Organization of a case study approach and its importance.

**Module - 5** Data processing and Analysis : Use of suitable statistical and cartographic techniques , Preparation of Thematic maps and diagrams , Modern tools, Digital data analysis, Remote sensing and GIS- Preparation of Research report- Chaptrisation –preparation of bibliography, Glossary , Appendix etc..

### REFERENCE BOOKS

1. Majid Hussain (1994), Methodology of Geography, Anmol Publication, New Delhi.
2. K.L.Narasimha Murthy(1999) ,Geographical Research , Concept Publishing company.
3. G.S.Gosal (1999),Fourth Survey of Research inGeography,Manak publication.
4. R.P.Misra (1983), Contributions in Indian Geography,Hilky publishers, NewDelhi.
5. Hanagi.I.L(1973),An Introduction to Scientific Geographical Research,Brown co.
6. Amedo Dand C.College (1975), An Introduction to Science and Reasoning in Geography, John Willey.
7. Davis.K.D (1971), Conceptual revolutions in Geography, University of London.
8. Research Methodology - Methods and Techniques, Revised Edited by C.R. Kothari (2004), New Age International Publishers, New Delhi.
9. Social Research Methods by David Dooley (1995), Prentice Hall, London.
10. A Survey Research in Geography- ICSSR, New Delhi (1972), Popular Prakasan, Bombay.
11. A Survey Research in Geography -1969-1972 , Edited by Moonis Raza (1979), Allied publishers private limited, Bombay.
12. Doig Development Research by Vandana Desai and Robert B Potter (2006), Sage Publications , New Delhi.
13. Basic Guide to Evaluation for Development by Francis Robin (2009) , Oxfarm Publication.
14. New Methods in Social Science Research by Allen, T. Harrell (1978), Praeger Publishers , New York.
15. The Design of Social Research by Ackoff Russell (1961), Chicago University Press.
16. The Principles of Scientific Research by Freedman, P ( 1960), Pergamon Press, New York.

17. Research Methodology in Social Science in India ,edited by L.P Vidyarthi and A.K .Helder(1985),today and tomorrow printers and publishers.
18. Quantitative Social Research Methods by Kultar Singh (2007), Sage Publication.
19. Social Survey Methods by Paul Nicholas ( 2009), Oxfarm Publishers Delhi.

Other books

20. Statistical methods in Geographical studies by Asalam Mahamood (1977 ), Rajesh Publication ,New Delhi.
21. An introduction to Urban Historical Geography by Harold Carter (1983), Edward Arnold.
22. The Urban Environment by Ian Douglas(1983), Edward Arnold.
23. Challenges to Asian Urbanization in the 21st Century. Edited by Ashok K.Dutt (2003), Aluwer Academic Publishers, London.
24. Modern Geographical trends edited by Pradyumna Pandey(1984), Today and tomorrow,Publicatiopns, New Delhi.
25. Geographical Imagination by Derek Gregary (1984), Black well ,U.K  
Geography : Realms, Region and Concepts, H.J. De bliss and PETER (1994), John Willey and Sons.
26. Climatology - An Atmospheric Science by John. E. Oliver and John . J. Hidore, Pearson Education.
27. An Introduction to Climate by Glenn T. Trewartha , MC.Graw Hill.
28. Foundation of Climatology by E.T. Stringer , Surgeet Publication, New Delhi.
29. Atmosphere, Weather and Climate by Barry. R.A and Charley. R.J , Routlej.
30. Global Warming by Harvey. L.D , Prentice Hall.
31. Oxford Dictionary of Weather by Storm Dunlop , Oxford University Press.
32. Man's role in changing face of the earth by William L. Thomas, Chicago University Press
33. Man and Environment -Vol.14 no-2 ,1989 , Indian Society for Pre-historic and Quaternary studies (1989) .

## Trends in Urban Geography - 4 credits

**Module-1** Nature, significance and scope of Urban Geography, Geographical Approaches to the study of Urbanization- Rise of urban studies in India.

**Module-2** The process of Urbanization- Pattern of Urbanization - growth of Urban Centres- influencing factors like Economic, Social and Political - Functional relationship of Urban Centres.

**Module-3** Urban Morphology - Concentric Zone model - major theories, CBD.

**Module-4** Urban landuse planning –Survey and Mapping techniques, Sub-urban growth – urban problems and urbanization policies.

**Module- 5** Dynamics of Urban Development- need of Master plans, Emerging problems of Urban Environment in Kerala.

### REFERENCE BOOKS

1. Mayor. H.M. and Kohn C.F (1959) , Readings in Urban Geography , University of Chicago press, Chicago.
  2. Carter Harold (1972) , The study of Urban Geography , Edward Arnold , London.
  3. Johnson .J.S(1967) , Urban Geography, An Introductory Analysis, PergamenPress, London.
  4. R.Ramachandran (1989),Urbanizatton and Urban systems in India,Oxford University press , New Delhi.
  5. Gosal .G.S ( 1972), Urban Geography ,ICSSR Report, popular prakasan, Mumbai.
- Misra Asok (1973), Functional classification of Indian Towns,Institute of Economic Growth,New Delhi.

## Aspects of Climatology

Credits - 4

### Aim of the Course

\* need for making the young researchers aware of the climatic change and its impacts through academic activities like class room teaching, conducting Seminars , organising campaigns, demonstrations, fieldwork and research.

\* Today people have really recognized this phenomena of climatic change universally.

\* Indian anxiety on climatic change in relation to food security is of great concern.

\* The burning problems like fresh water scarcity, saline intrusion, Changes in monsoon, Retreat of rivers, desertification, salinization of soil, Low agricultural productivity, sinking of coastal areas, unemployment in shorelines, various health problems like new endemic fever, emerging rate of natural calamities etc.

**Module-1** New Trends In Climatology: , Heat balance-vertical and horizontal distribution of Temperature, General circulation of atmosphere- Monsoon and Tropical Cyclones.

**Module-2** Major Theories of Climate Change: Socio-environmental issues on Climate Change, Role of minor climate in ecosystem- Mountain, Valley, Coastal, Bare ground and Forest.

**Module-3** Agro- climatology: Elements of agro-climate - temp, wind and rainfall, reliability and intensity -crops and moisture needs-aridity and water budget-Crop Calendar ,Climatic Hazards and food scarcity in Kerala.

**Module-4** Man -made Climates: Urban Climatic Elements -radiation and energy balance, Sunshine and visibility - Heat Island, Effects of atmospheric pollution , Green house effect, Ozone depletion, Acid rain etc..

**Module-5** Application of Weather information and Forecasting in Geographical Research - Types and Sources of data , methods of collection , Role of Meteorological stations satellites in weather forecasting- Weather information and Social needs.

### REFERENCES

1. David .H.Miller Climate and Life Academic press, New york
2. Flohn,Hermann Climate and Weather Mc Graw Hill
3. Griffith Climate and Environment Oxford University press
4. Gribbin, John Climate change Cambridge University Press