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<td>Population, Data and Age-Sex Structure</td>
<td>Theory</td>
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<td>PS-102</td>
<td>Human Ecology and Environment</td>
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<td>Statistical Methods in Demography</td>
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<td>Reproductive Health &amp; Gender Issues</td>
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<td>PS-105</td>
<td>Basic Demographic and Statistical Methods</td>
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<td>Epidemiology and Biostatistics</td>
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<td>PS-303</td>
<td>Business Demography &amp; Population Policy</td>
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<td>Nutrition &amp; Community Health</td>
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<td>HIV/AIDS &amp; Communication</td>
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**PS-101: Population, Data and Age-Sex Structure**


II. Sources and Types of Demographic Data; Population Census: Uses and Limitations; Steps Involved in Taking a National Census; Changing features of Indian Census; Civil Registration System in India; Sample Registration System in India; Sample Survey: Uses and Limitations.

III. Concept of Population Change and Balancing Equation; Age-sex Structure and its Common Measures; Patterns and trend of Age – Sex Structure of Population in Developed and Developing Countries. Ageing: concept, trend and its implications.

IV. Quality, Evaluation and Adjustment of Data; Types and Sources of Error in Demographic Data; Post Enumeration Check; Measurement of Errors: Whipple’s Index, Myer’s Index, United Nation Joint Score Method; Methods of Adjustment of Age-Sex Data at the Young and Old Ages.
Suggested Readings:
Pathak, K. B. and F. Ram: Techniques of Demographic Analysis, Himalaya.

PS-102: Human Ecology and Environment

I. Concept of Human Ecology and Ecosystem; Division of Ecology and Ecosystem; Structure and Components of Ecosystem; Concept of Energy Flow in Ecosystem; Food Chain, Food Web and Ecological Pyramids; Concept of Biosphere.

II. Biodiversity – Definition, Levels, Value and Conservation; Natural Resources: Types of Resources and Sources of Energy Resources; Conservation of Natural Resources; Environmental Ethics and Education; Food Crisis and Environment

III. Environmental Pollution: Types of Pollution and Classification of Pollutants; Effect of Environmental Pollution on Human Health; Global Environmental Problems and their effects on population: Climate Change, Global Warming, Ozone Depletion, Acid Rain; Land Degradation and Desertification.

IV. Sustainable Development; Concept of EIA and SIA; Environmental Hazards; Natural Disasters and their Management; Concept of Environmental Refugee; Environmental Policies; Environmental Laws/Acts in India; Environmental Movements in India; Global Environment Agreements; Concept of Environmental Management.

Suggested Readings:
Trivedi, P.C., (2004), Environmental Pollution and Management, Aavishkar, Jaipur.
Trivedy, A.K., & Goel, P.K., (2003), An Introduction to Air Pollution, ABD Publishers, Jaipur.

PS-103: Statistical Methods in Demography

I. Uses and importance of statistics in Demography; Frequency distribution: Uni-variate and Bi-variate; Table – construction and types; Graph – Histogram, Bar Diagram, Frequency Polygon, Ogive, and Pie Chart; Distribution – normal and abnormal curves, their basic nature, normalization of abnormal distribution, regions of a curve.

II. Rates, Ratios, Proportions and Percentages; Measures of Central Tendency: Mean, Median and Mode; their relative merits and demerits; Measures of Dispersion: Range, Quartile Deviation, Mean Deviation and Standard Deviation; Coefficient of Variation.

III. Measures of Skewness and Kurtosis; Measures of Location: Quartile, Decile and Percentile; Moving average; Bi-variate Association and Causation: Correlation Analysis - Pearson and Spearman Coefficients; Linear Regression Analysis, Standard Error of Estimate.


Suggested Readings:

PS-104: Reproductive Health & Gender Issues

I. Concept of Reproductive Health; Reproductive Health Situation in India; Physiology of Human Reproduction: Male & Female Reproductive Systems;
Changes associated with menarche; Menopause and related Health Problems; Causes and Social consequences of Infertility.

II. Reproductive Morbidity: Obstetric Morbidity; Gynaecological Morbidity; Abortion and Contraceptive related Morbidities; Common Problems of Pregnancy; Concepts of ANC, RTI & STIs; Sex selective abortion; Reproductive Rights.

III. Gender Issues: Difference between Gender & Sex; Patriarchy; Engel’s Views on the Origin of Patriarchy; Matriarchy; Theories of Feminism: Liberal, Radical, Marxist and Socialist; Son-preference and its Consequences; Dowry System and its consequences.

IV. Concept of Female Autonomy; Empowerment and Status of Women; Domestic Violence; Gender Differentials in Education and Work Participation; Women’s participation in Household Decision-making and control over family income; Property Rights of Women in India; Effect of Gender Discrimination on Women’s Health; Gender Budgeting.

**Suggested Readings:**


**PS-105: Basic Demographic and Statistical Methods**

| 1. Age-Sex Pyramid & Dependency Ratio |
| 2. Whipple’s Index |
| 3. Myer’s Index |
| 4. United Nation Joint Score Method |
| 5. Adjustment of Age Data |
| 6. Histogram and Frequency Polygon |
| 7. Pie Chart and Ogive |
| 8. Arithmetic Mean and Standard Deviation |
| 9. Median and Mode |
| 10. Coefficient of Correlation – Pearson and Rank Correlation |
| 11. Regression Analysis and Standard Error of Estimates |
| 12. Arithmetic & Exponential Growth Models |

**Marking Pattern (Theory)**

| End-Term Examination – 80 |
| Internal – 20 |

**Total – 100**

**Marking Pattern (Practical)**

| Practical Test – 80 |
| Record – 05 |
| Seminar (Conceptual) – 05 |
| Viva-voce – 10 |

**Total – 100**
PS-201: Nuptiality and Fertility

I. Nuptiality: Basic Concepts and Sources of Data; Measures of Nuptiality: Crude Marriage Rate, General Marriage Rate, Age-Sex Specific Marriage Rate, Order Specific Marriage Rate, Total Marriage Rate; Mean Age at Marriage: Synthetic Cohort Method and Decadal Synthetic Cohort Method; Coale’s Age Pattern of Nuptiality; Levels and Trends in Age at Marriage in India; Divorce, Widowhood and Widow remarriage and their implications.

II. Importance of Studying Fertility; Basic Concepts in Fertility: Fecundity, Facundibility, Fertility, Natural Fertility and Actual Fertility; Methods of Family Planning; Sources of Fertility Data; Determinants of Natural Fertility: Davis & Blake Intermediate Variable Framework, Bongaart’s Proximate Determinant Model.

III. Theories of Fertility: Social Capillarity Theory, Theory of Diffusion and Cultural Lag, Theories of Leibenstein, Becker, Easterlin and Caldwell, UN Threshold Hypothesis; Value of Children; Fertility Transition in Developed and Developing Nations; Causes of Fertility Decline in India, Adolescent fertility and its implications.

IV. Basic Measures of Fertility: Crude Birth Rate, General Fertility Rate, Age Specific Fertility Rate, Total Fertility Rate; Standardisation of CBR & GFR: Direct and Indirect Methods; Coale’s Fertility Index; Measures of Fertility based on Birth Order and Parity, Parity Progression Ratio; Measures of Reproduction: Gross and Net Reproduction Rates.

Suggested Readings:
Agarwal, S.N.; Age at Marriage in India; Kitab Mahal, Allahabad.
Agarwal, S.N.; India’s Population Problem; TMH, Mumbai.
Freeman, Ronald; Sociology of Human Fertility: A Trend Report; Current Sociology.
Mahadevan, K; Fertility and Mortality, Methodology and Empirical Issues; Sage, N Delhi.
Pathak, K.B. & Ram, T; Techniques of Demographic Analysis; Himalaya Publ. House, Mumbai.

PS-202: Morbidity and Mortality

I. Morbidity: Relevance for Assessment of Health Condition; Measurement: Incidence and Prevalence Rates; Point and Period Prevalence Rates; Sources, Quality and Use of Morbidity Data; Implications for Insurance and Public Health Policies; Factors affecting Mortality Decline in the World.

II. Health Status; Measures of Health: Morbidity, Nourishment and Mortality; Theory of Health Transition: Importance of its Study for Policy and Public Intervention; Mortality: Concept and Measurement; General and Specific Death Rates: Crude Death Rate, Age-specific Death Rate, Cause-specific Death Rate, Sex-specific Death Rate.

IV. Standardization of Death Rates: Direct and Indirect Methods; Adjustment of Infant Mortality Rate: Forward and Backward Methods. Expectation of Life at Birth; Concept, Types and Uses of Life Table; Construction of Life Table; Concept of Model Life Table; Mortality Differentials: Importance of Study; Classification of Mortality by Socio-economic Categories.

Suggested Readings:

Das Gupta, Monica *et al.* (eds.), *Health, Poverty and Development in India*, Oxford University Press, Delhi.
Preston, H. S.: *Biological and Social Aspects of Mortality and Length of Life*, Liege, Ordinal.
Registrar General: *Causes of Death (Rural)*, New Delhi.

PS-203: Mobility and Migration

I. Concepts of Mobility and Migration; Sources of Migration Data; Types of Migration; Migration Differentials; Pre and Post Independence Migration Pattern in India; Concepts of Seasonal Migration and Commuters; Determinants and Consequences of Internal Migration.

II. Measures of Internal Migration and Problems of Base Population; Estimation of Lifetime and Inter-Censal Migration from Place of Birth; Duration of Residence, and Place of Last Residence Data; Indirect Measures of Net Internal Migration: Vital Statistics Method, National Growth Rate Method and Census & Life Table Survival Ratio methods.

III. International Migration: Sources of Data; Patterns of International Migration from India; Categories of International Migration: Labour Migration, Brain Drain, Refugee Migration and Illegal Migration; Determinants of International Migration and Consequences upon Demography, Economy and Society; Socio-economic effects of Remittances.

IV. Basis of Decision Making in Migration; Problems of Left behinds; Issues of Social Networking and Health of Migrants; Migration Theories and Models:
Ravenstein’s Laws of Migration, Everett Lee’s Theory of Migration, Wolpert’s Decision Making Aspects of Migration, Todaro’s Model of Rural-Urban Migration.

Suggested Readings:
Bouge, D. J.: Principles of Demography, John Wiley & Sons
Chopra, Kanchan: Migration, Common Property Resources and Environmental Degradation; Sage Publication.
Cohen Robin: Theories of Migration; The International Library of Studies on Migration, Edward Elgar, Cheltenham.
Pathak, K. B., and Ram, F.: Techniques of Demographic Analysis, Himalaya, Mumbai.
Yadava K. N. S.: Rural-Urban migration in India-Determinants, Patterns and Consequences

PS-204: Spatial Distribution & Urbanisation

I. Spatial Distribution of World Population and Factors affecting it; Variation in Rural-Urban Distribution and Density of World Population with special reference to India; Methods of Studying Population Distribution: Index of Redistribution, Lorenz Curve and Gini Concentration Ratio.

II. Urbanisation: Concept, Importance of Study and Sources of Data; Definition of Urban and Related Concepts used in Indian Census; Components of Urban Population Growth; Kingsley Davis Model of Urbanisation; Level and Tempo of Urbanization; City Population Distribution; Rank Size Rule & Primacy Index.

III. Urban Development: Concepts; Urban Morphology; Functional Classification of Towns and Cities; Models of Metropolitan Growth: Burgess Concentric Zone Model, Hoyt’s Sector Model, Haris and Ullman’s Multiple Nuclei Model; Elements of City Planning.

IV. Trends of Urbanisation in Developing & Developed Countries; Phenomena of Over-Urbanisation & Urban Primacy; Urbanisation Related Problems in Developing Countries with Focus on India: Land Use, Housing, Slums, Water Supply and Sanitation, Transport, Environmental Problems, Urban Health Issues and other Social Problems.

Suggested Readings:
PS-205: Major Demographic Techniques

1. Singulate Mean Age at Marriage
2. Basic Measures of Fertility
3. Standardization of CBR
4. Basic Measures of Mortality
5. IMR and its Adjustment
6. Life Table Construction
7. Migration Rates
8. National Growth Rate Method
9. Census Survival Ratio Method
10. Lorenz Curve & Gini Concentr. Index
11. Rank Size Rule and Primacy Index
12. Level and Tempo of Urbanization

Marking Pattern (Theory)

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Marking Pattern (Practical)

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PS-301: Research Methodology

I. Scope of Social Research; Research Process; Basic Elements of Scientific Research; Problem of Study: Formulation and Justification of Problem; Review of Literature; Hypothesis; Research Design; Importance and Uses of Scaling; Likert Scale.

II. Quantitative Methods of Data Collection: Direct, Self-administered and Telephonic Interview; Qualitative Methods of Data Collection: Participant and Non-participant Observation; Case Study, Focus Group Discussion, Content Analysis, Construction of Schedule and Questionnaire; Research Ethics.

III. Concept and Importance of Sampling; Difference Between Sample Survey and Census; Sampling Frame; Sampling Methods: Simple Random Sampling, Systematic Sampling, Cluster Sampling, and Purposive Sampling; Sampling Design of NFHS -3; Sampling and Non-sampling Errors; Pilot Survey

IV. Variable: Meaning and Measurement Scales; Data Editing; Consistency Check of Data; Presentation and Interpretation of Uni-variate, Bi-variate, and Multi-variate Tables; Report Writing: Structure of Report, Notes, Reference/Bibliography.

Suggested Readings:

Ahuja, Ram (2001), Research Methods, Rawat Publications, New Delhi.

PS-302: Epidemiology & Biostatistics

I. Epidemiology: Definition, Components and Aim of Epidemiological Studies; Difference between Acute-Chronic, Epidemic-Endemic, Communicable-Non-Communicable Diseases; Epidemiological Methods: Descriptive Epidemiology, Analytical Epidemiology - Case Control Studies & Cohort Studies; Concepts of Attributable Risk and Relative Risk.

II. Concept of Experimental Epidemiology; Concept of Association and Causation; Uses of Epidemiological Studies; Investigation of an Epidemic; National Disease Surveillance System; International Classification of Diseases and Causes of Death; Concepts of DALY & DALE.

III. Screening for Diseases: Concept, Use and Types; Screening Test and its Evaluation; Communicable Diseases: Chain of Infection, Control and Management; Clinical Trial: Concept, Ethics and Phases; Clinical Trial Design – Uncontrolled and Controlled Trials.

IV. Biostatistics: Scope and Use; Concepts of Hypothesis, Null Hypothesis and Alternative Hypothesis; Testing Hypothesis: Parametric Tests - F’, t’ and Z’ Statistics; Non-Parametric Tests: Wilcoxon’s Signed-Rank Test and Median Test, Merits of their Use in Demographic Studies

Suggested Readings:
PS-303: Business Demography and Population Policy

I. Business Demography: Concept and Need; Difference between Demography and Demographics; Age-sex and Socio-economic Structures of Population as Determinants of Size and Composition of Consumers; Market: Definition and Structure; Price Determination and Discrimination.

II. Marketing Strategies: Decision on Product, Prices and Promotion based on Lifestyle and Consumer Behaviour; Marketing Research: Objective and Role in Business; Market Forecast: Collection and Analysis of Data for Projection of Size and Type of Consumers; Business Statistics: Time Series Analysis; Index Number.


IV. Population Policies and Programmes at National and State Levels (Andhra Pradesh); Population Policy of India 2000; Problems and Strategies of Policy for Special Groups: SC/ST, Youth, Women and Aged; UN's Role in Population Policy Formulation; World Population Conferences and their Recommendations.

Suggested Readings:

PS-304: Population and Development

I. Population-Development: Concepts and Relevance; Importance of Study in the Global Context; Layers of Development Objective; Types and Sectors of Development; Determinants of Development; Basic Determinants of Population; Channels of Mutual Relationship; Impact of Population on Development; Impact of Development on Population.


III. Quality of Human Resource; Implications of Demographic Change for Human Resources Development; Concept of Human Development: Enlargement of Choice; Some Basic Concepts and Measures of Workforce; Change in Work Participation Rate and Development; Industrial Classification of Workers; Unemployment: Concept, Causes & Consequences; Demographic & Economic Determinants of Labour Supply.

IV. Social Change and Social Development; Central Tenets of Social Development; Effects of Social Development on Demographic and Health Situations; Effects of Demography and Health on Education, Urbanization and Exposure to Mass Media; Impact of Population Growth on Food, Water, Sanitation, Housing, Employment, Health; Regional Disparities in Socio-economic Development.

Suggested Readings:

PS-305: SPSS and Advanced Statistics

1. Creation of Data Frame
2. Frequency and Recoding
3. Cross-tabulation
4. Construction of Indices
5. Pearson Correlation Coefficient
6. Linear Regression Analysis
7. Likert Scale
8. Median Test (Chi-square)
9. Wilcoxon’s Signed-Rank Test
10. Selected Development Indices
11. Price Index
12. Time Series Analysis

Marking Pattern (Theory)
End-Term Examination – 80
Internal – 20

Marking Pattern (Practical)
Practical Test – 80
Record – 05
Seminar (Group Discussion) – 05
Viva-voce – 10

Total – 100

PS-401: Regional Demography


III. Migration and Urbanization Scenario in Orissa: Inter district migration stream, Life time migrants, Characteristic features of migrants, Level and trends of urbanization; Size Class Structure of Urban Centres; Problems of urbanization.

IV. Tribal Demography of Orissa: Definition and characteristics of tribes, distribution of tribes, Growth of Tribal population; Tribal demographic scenario: Age Structure, Sex-ratio, Birth rate, Death rate, Infant mortality rate, Maternal mortality ratio, Life expectancy; Problems of major and primitive tribes.

Suggested Readings:

PS-402: Nutrition and Community Health

I. Concept of Nutrition; Classification of Food; Nutritional Constituents of Human body; Nutritional Requirement and Balanced Diet; Nutritional Diseases; Nutritional Problems in Public Health.

II. Assessment of Nutritional Status; Nutritional Surveillance and Growth Monitoring; Social Aspects of Nutrition – Problems of Malnutrition, Ecology of Malnutrition, Preventive & Social Measure; Food Surveillance; Community Nutrition Programmes: Vitamin A Prophylaxis Programme, Prophylaxis against Nutritional Anaemia, Special Nutrition Programme, ICDS Programme, Mid Day Meal Programme.

III. Health Care of the community: Concept, Levels, Elements and Principles of Health Care; Health for All and National Strategy for HFA 2000; Health Care Delivery System; Assessment of Health Status and Health Problems; Resources for Community Health – Health Manpower, Money & Material and Time.

IV. Health Care Services: Organization of Health Care System; Primary Health Care in India: Village, Sub-Centre, PHC, CHC and District Levels; Health Insurance; Voluntary Health Organization in India; National Rural Health Mission

Suggested Readings:
PS-403: Planning and Rural Development

I. Concept and Scope of Rural Development; Evolution of the Concept of Rural Development in the Indian Context; Need for Rural Development; Causes of Rural Backwardness; Problems of Unemployment and Under-employment in Rural Areas; Policies and Programmes for the Development of Rural Industries.

II. Planning for Rural Development; Approaches to Rural Development in India: Sectoral and Participatory Approaches; Allocation Under Plans for Rural Development; Panchayat Raj Institutions and 73rd Amendment: Evolution, Structure and Functions; Role of Panchayat Raj Institutions in Rural Development.

III. Levels of Living of Rural People: Poverty indicators - Measurement of Rural Poverty, Poverty Line, Poverty Alleviation Programme – MGNREGS, Housing, Food Security: Food Subsidies and Agricultural Subsidies; Provision of Safe Drinking Water, Health - ICDS and Education – Mid-day Meal Programme.

IV. Cooperative Institutions: Concept and Principles of Cooperation; Types and Working of Rural Cooperatives: Credit, Marketing and Dairy Cooperatives; Common Property Resources and Livelihoods of Poor; Role of Community Based Organizations in Sustainable Rural Development.

Suggested Readings:
Das K. B.: Rural Development through Decentralization
Gunnar Myrdal: Asian Drama
Hanumappa H.G.: Socio-Economic Inventory for Block Level Planning
Mukherjee N: Participatory Rural Appraisal Methodology and Applications
Vasant Desai: A Study of Rural Economy
Sharma and Malhotra: Integrated Rural Development
PS-404: HIV/ AIDS and Communication

I. Disease profile: Immune system, Stages of HIV/ AIDS; Theories of origin of HIV/ AIDS; Transmission of HIV/ AIDS through Sex, Blood and Mother-to-Child; Misconception of HIV/ AIDS; Global and National Scenario; HIV situation in Orissa; Implications of HIV/ AIDS.

II. HIV Prevention and Control: UN and Government initiatives; HIV/ AIDS Education: Goal, Prevention and Steps; Life skill education for HIV/ AIDS; HIV/ AIDS and Ethical Issues; Rights of HIV/ AIDS patients; Vulnerable population.

III. Population Communication: Concepts, Types and Functions; Barriers to Communication; Communication Models: Schramm and Berlo Models; Socio-cultural constituents in Communication – Language, Sign/ Symbol, Feedback and Noise; Population Communication Programme in India; Traditional Means of Communication; Folk Media: Concept, Characteristic features, Types and Functions.

IV. Group Communication; Mass Communication; Health Communication and its Functions; Research in Population Communication: Audience Research, Media Research, Source Research and Content Analysis; Effectiveness of Communication programme; Counseling: Concept and Need of Counseling; Characteristics of a good counselor; Role of Counseling in Population and Health Education.

Suggested Readings:
Kanitkar, T; Verma, R; Evaluation of National Population Education Project, IIPS, Mumbai.
Reddy, A.A.; Extension Education
Seshadri, C and Pandey, J.L; Population Education: A National Source Book.

PS–405: Dissertation

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M. Phil. SEMESTER-WISE LIST OF PAPERS

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<tr>
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<td>PS–502</td>
<td>Social Research and Statistics</td>
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PS-501: Population Dynamics

I. Measures of Nuptiality; Mean Age at Marriage; SMAM; Common Measures of Fertility; Important theories: Demographic Transition Theory, Davis and Blake Framework, Bongaart’s Proximate Determinant; Issue of Age at Marriage; Adolescent Fertility in India; Value of Children; Issues of Infertility; Linkage of Empowerment of Women with Contraceptive Use, Fertility and Reproductive Health.

II. Morbidity Measures: Incidence and Prevalence Rates; Long and Short Duration Morbidity Rates; Common Mortality Measures; Still Birth, U5 and Maternal Mortality Rates; Life Table and Implication of Life Expectancy; Changing Patterns of Morbidity in India and Orissa; Methodological Problems Involved in Morbidity Data; Mosley-Chen Framework; Consequences of Infant and Maternal Mortality; Implications of Mortality & Morbidity for Insurance and Public Health Policies.

III. Migration: Concept and Types, Determinants and Consequences of Migration; Measures of Internal Migration; Indirect Estimation of Migration: Vital Statistics Method, National Growth Rate Method and Survival Ratio Method; Migration Theories: Ravenstein and Todaro; Issues of Brain Drain, Refugee, Illegal Migration and Human Trafficking; Internal Displacement; Issues relating to Migration and HIV/AIDS, Adjustment, Quality of Life, and Left Behind


Suggested Readings:
Preston, H. S.: Biological and Social Aspects of Mortality and Length of Life, Liege, Ordinal.
Yadava K. N. S.: Rural-Urban Migration in India-Determinants, Patterns and Consequences

PS-502: Social Research and Statistics


II. Construction of Interview Schedule/ Questionnaire; Data collection through: Direct interview, Self-administered interview, Observation, Caste Study and Focus Group Discussion; Sampling: Concept, Simple Random Sampling, Probability Proportionate to Size Sampling, Stratified Sampling; Purposive Sampling, Multi Stage Sampling Design – NFHS-3; Sampling and Non-sampling Error

III. Data Cleaning; Validity and Reliability of Data; Variable: meaning and types; Construction of Indices and Assigning weights; Presentation of Data: Tabular and Graphic, Measures of Central Tendency: Mean and Median; Measures of Dispersion: Standard Deviation

IV. Statistical Significance; F – Test; Chi-Square Test; Bi-variate Analysis: Bi-variate Cross tabulation, Pearson Correlation Coefficient, Linear Regression; Standard Error of Estimates; Theoretical aspects of Multi-variate Statistics: Multi-variate Cross tabulation, Multiple Correlation and Multiple Regression Analysis, Binary Logistic Regression, Multi-nominal Logistic Regression, Multiple Classification Analysis

Suggested Readings:
Ahuja, Ram (2001), Research Methods, Rawat Publications, New Delhi.

PS-503: Public Health

I. Concept and Scope of Public Health; Indicators of health status: Nutritional and Morbidity Levels; Methods of Assessing health status; Causes and Consequences of Disease and Malnutrition; Cultural factors affecting health and disease; Economic burden of diseases; Gender-based Violence: Health Consequences and Interventions; Disability as a concern for public health; Life Style and morbidity; Sanitation and Disease; Health Inequality

II. Current Health Scenario in Orissa; Implications of Antenatal Care, Maternal Mortality; Reproductive health status of women in Orissa; Immunization: Vaccination Schedule, Levels of Immunization in Orissa, Impact on Child Health; Infant Mortality in Orissa: Level, Trends, Causes, Consequences and Remedies; Occupational Health Hazard and Measures for its protection; Health Status of Aged in India

III. Indian System of Medicine; Organizational structure of health care delivery system in India; Barriers to health care delivery - Availability, Affordability, Accessibility and Acceptability; Health seeking behavior; People’s choice and satisfaction with health care services, Health Insurance in India – Opportunities, Challenges and Concern, Importance of Private Health Sector
in India; Abortion: Available Services, Associated Problems and Scope for research; HIV/AIDS: a Public Health Concern and Gateway for research

IV. Millennium Development Goals; National Health Policy 2002; National Policy on Older Persons 1999; Medical Termination of Pregnancy Act; National Malaria Eradication Program; ICDS Program; Universal Immunization Program; National AIDS Control Program; Reproductive and Child Health Program; National Rural Health Mission; Govt. Health Expenditure; Role of NGOs and Untrained health practitioners in Community Health Development.

Suggested Readings:

PS-504: Rural Development

I. Rural Planning: Concept and Objective; Top-down and Bottom-up Planning; Planning for Rural-Urban Interface; Panchayati Raj System; Concepts of Target Group and Local Area Development; Strategies of Development: Changing Emphasis from Growth to Basic Needs; Assumptions, Features and Reasons of Failure of Growth and Basic Needs Strategies.


Suggested Readings:
Das K. B.: Rural Development through Decentralization
Gunnar Myrdal: Asian Drama
Hanumappa H.G.: Socio-Economic Inventory for Block Level Planning
Mukherjee N: Participatory Rural Appraisal Methodology and Applications
Vasant Desai: A Study of Rural Economy
Sharma and Malhotra: Integrated Rural Development.

PS- 601: Dealing with Data in SPSS (Practical)

I. Identifying differences in Data & Measurement
   a. Primary and Secondary Data
   b. Types of measurement scales
   c. Unit of measurement
   d. Unit of Analysis

II. Preparation of Interview Schedule
   a. Setting questions and reference periods
   b. Setting follow-up questions & Skipping pattern
   c. Creating Data Frame
   d. Coding of Data

III. Data Cleaning & Processing
   a. Consistency Check
   b. Dealing with missing cases
   c. Creating variables
   d. Weight and Index

IV. Presentation of Data
   a. Tabulation
   b. Graphs - appropriateness
   c. Correspondence (Numerator/Denominator)
   d. Corresponding Reference Period
PS-602: Data Mining and Interpretation of Results (Practical)

I. Testing of Hypotheses & Data files:
   a. Chi square test (2x2 table)
   b. ‘t’ Test
   c. Making data file ready
   d. Merging files & Variables

II. Data analysis & interpretation
   a. Cross-tabulation (multi level)
   b. Binary logistic regression
   c. Multinominal logistic regression
   d. Multiple Classification Analysis

III. Census Data
   a. Fertility and Nuptiality Data
   b. Household data
   c. Migration
   d. Occupational Classification

IV. Sample Survey Data: NFHS
   a. Fertility
   b. Nuptiality
   c. Morbidity
   d. Infant Mortality

PS-603: Dissertation

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