

## PG Diploma in Bio-Statistics and Population Studies (PGDBSPS)

### Course Structure:

| Paper No. | Course Code | Title of the Course                                   | Terminal Examination | Assignment/Internal | Total | Credits |
|-----------|-------------|---|----------------------|---------------------|-------|---------|
|           | PGDBSPS-01  | Population Studies: Concepts, Issues and Developments | 70                   | 30                  | 100   | 8       |
|           | PGDBSPS-02  | Concepts of Demography                                | 70                   | 30                  | 100   | 8       |
|           | PGDBSPS-03  | Research Methodology                                  | 70                   | 30                  | 100   | 8       |
|           | PGDBSPS-04  | Bio-Statistics  | 70                   | 30                  | 100   | 8       |
|           | PGDBSPS-05  | Practical and Viva voice                              | 70                   | 30                  | 100   | 8       |
|           | Total       |   | 350                  | 150                 | 500   | 40      |

### **PGDBSPS-01                      Population Studies: Concepts, Issues and Developments**

#### **Block- 1:      Population, Resources and Development**

**Unit-1:**                      Need to Study the Population, Classification of Natural Resources, Capital Resources, Human Resources, Role of UN and Other International Agencies, etc.

**Unit-2:**                      Definition and Scope of Development, Indicators of Developments, Concept of Sustainable Development, Theories of Development.

#### **Block- 2:      Population Projection and Policies**

**Unit-1:**                      Concepts of Population Projection, its uses, Different Methods of Population Projection, Gompertz curve and Growth Rate Models.

**Unit-2:**                      Principle Features of Policies, Policy, Formulation, Policy Indicators, National Population Policies, National Health Policy, National Rural Health Mission, National Health and Family Planning Programmes, etc.

### **PGDBSD-02                      Concepts of Demography**

#### **Block- 1:      Introduction to Demography**

**Unit-1:** Definition and Scope of Demography, Sources of Demographic Data: Censuses, National Sample Survey, Simple Registration System, Demographic Health Surveys, Others, Basic Demographic Concepts,

**Unit-2:** Dynamics of Age Sex Structure, Factors Affecting the Structure, Aging of Population, Factors Affected Age Structure

**Unit-3:** Errors in Census and Vital Statistics and their Adjustment, Whipples and Myer's Indices, Chandrasekharan Deming Formulae to Check of Registration Data.

**Block- 2: Demographic Parameters**

**Unit-1:** About Fertility, Different Measurements of Fertility, Basic Fertility Measures, Cole Fertility Indices, Reproduction Measures, Bongarts Proximate Determination, Birth Interval Analysis

**Unit-2:** About Mortality, Different Measurements of Mortality, Basic Measures, Infant Mortality Rate, Maternal Mortality Rate, Basic Concepts of Life Table its types and forms, Model Life Table

**Unit-3:** Concept of Mobility and Migration, Types of Migration, Different Measurements of Migration, Basic Measures, Causes and Consequences of International Migration.

**PGDBSPS-03**

**Research Methodology**

**Block- 1: Introduction to Research Methodology**

**Unit-1:** Meaning and Types of Research, Significance of Research, About Research Problem and its Selection.

**Unit-2:** Dynamics of Age Sex Structure, Factors Affecting the Structure, Aging of Population, Factors Affected Age Structure, Meaning and Need for Research Design.

**Block- 2: Sampling Design**

**Unit-1:** About Sampling, Different Types of Sampling Designs.

**Unit-2:** Methods of Data Collection, Meaning and Techniques of Interpretation.

**Unit-3:** Meaning and Measurement of Scaling. Scale Construction Techniques.

**PGDBSPS-04**

**Bio-Statistics**

**Block- 1: Descriptive Statistics**

**Unit-1:** About Statistics, Measures of Central Tendency, Measures of Dispersion, Measures of Asymmetry.

**Unit-2:** Measures of Relationship, Regression Analysis Association of Attributes.

**Block- 2: Testing of Hypothesis**

**Unit-1:** About Hypothesis and its Types, Level of Significance, Chi-Square Tests, t-tests, z-tests.

**Unit-2:** Analysis of Variance and Co-Variance, Basic Principles of ANOVA and ANCOVA. (One Way, Two Way and Three Way Analysis)

**Unit-3:** Non Parametric Tests, Sign Tests, Run Tests, Wilcoxon Tests, Kendall Tests. Etc.

**PGDBSPS-05**

**Practical and Viva voice**

Based on PGDBSPS- 01, 02, 03 and 04