

PASSED IN INSTITUTE BOARD-16/10/23

\*\*\*\*\*NEP SYLLABUS-SESSION-2023-24

**UG course-Bachelor of Rural Studies**  
**Department of Rural Studies (PCK)**  
**PSV, Sriniketan**  
**Visva-Bharati**

**BRS-CERTIFICATE COURSE**  
**I and II semester- Total Credit (44 +4 )**

**Semester-I=23credit**

**Major (Core)—2X4=8 credit**

**1. ECONOMICS FOR RURAL STUDIES**

Unit I-Social activity and social relation-man-nature interaction; man-man interactions.  
Scope of Economics in relation to Production and Market; Production as a social activity—major type of productions-Agriculture, Industry, Mining and transport.

Unit II-Division of Labour vis-a vis surplus and product market; Working of pre-market economic system; Working of a capitalist economy-

Unit III-Relevant difference between agricultural products and product of organised market—seasonality and continuity of production and excess capacity; traders' and producers' control over price in the final market; Cost determined and demand determined production.

Unit IV-General law of supply and demand-Demand-supply equilibrium and price; Exceptions to law of demand, Elasticity of demand.

Unit V-General equilibrium analysis.

References will be supplied to the students directly during the commencement of course.

**2. INTRODUCTION TO RURAL SOCIOLOGY**

Unit I: Emergence of Sociology:

Commercial Revolution, Origin of Science and Scientific Revaluation, European Enlightenment, Industrial Revolution, French Revaluation

Unit II: Sociology:

Meaning and Definition, Nature and Scope of Sociology, Sociology as a Science, Auguste Comte and Spencer Contribution to Sociology

Unit III: Basic Concepts:

Society, Community, Association, Role and Status, Social Norms, Folkways, Mores, Values, Social Control, Social Order, Social system, Social Organization, Reference Groups.

Social Process: Co-operation, Competition, Conflict, Accommodation, Assimilation, Acculturation & Socialization.

Unit IV: Classical sociological thinkers:

Marx: Historical Materialism, Mode of Production and Class Conflict

Durkheim: Rules of Sociological Method, Division of Labour

Weber: Social Action, Ideal type, Protestant Ethics and Spirit of Capitalism

**Minor. (Stream)-1X4=4credit**

### **1. RURAL LIVELIHOOD**

Unit I-Concept and definition of rural livelihood

Unit II-Indicators of rural livelihood

Unit III-Levels of living

Unit IV-Framework for livelihood analysis

Unit V-Livelihood strategies

Unit VI-National Rural Livelihood Mission

Unit VII-National Food Security Mission

**Multidisciplinary—1X3=3credit**

### **1. RURAL ADMINISTRATION AND CONSTITUTION**

Unit I-Administrative Law: Meaning, Nature and Scope; Growth of Administrative Law: Reasons; Concept of Rule of Law; Rule of Law under Indian Constitution.

Unit II-Principles of Natural Justice & their Judicial interpretation – Administrative discretion and Judicial control; Administration Tribunals meaning, Reasons and Features Difference between Court and Tribunal;

Unit III-Delegated Legislation: Meaning & Need of delegated Legislation; Parliamentary control; Procedural & Judicial Control; Judicial Review; Principles and modes (writs).

Unit IV-Fundamental Rights and; Fundamental Duties; Amendment of Indian Constitution; Procedure, Basic Structure Concept;

Unit V-Growth of Rural Development Institutions in India (since Independence). – Institutional Arrangement for Rural Development at national level: Organization structure, Functions and Role of Union Ministry of Rural Development. Institutional Arrangement for Rural Development at State level: Organization Structure,

Functions and Role of Department of Rural Development, Institutional Arrangement for Rural Development at District level Organization, Functions and Role of District Rural Development Agency (DRDA).

Unit VI-Functions and Role of Block Samiti/Panchayat Samiti, Gram Panchayat and Gram Sabha in Development. Organization, Functions and Role of Block level Administration in Rural Development. Functions and Role of Block Development Officer (BDO) & Extension Officers in Rural Development.

**AEC—1X2=2 credit**

1. English to be provided by university

**SEC-1X3=3credit**

1.

Introduction to computer application-1

**CVAC—1X3= 3 credit**

1. Tagore Studies-1 to be provided by university

## **Semester-II=23 credits**

**Major (Core)—2X4=8 credit**

### **1. RURAL GEOGRAPHY**

Unit I-Subject matter of Geography; Geography as a space-time discipline; four traditions in Geography – Spatial, Man-environment, Area studies & Earth Science tradition. Subject matter and Scope of Human Geography, Nature, scope, definition and significance of Rural Settlement Geography.

Unit II-Origin and distribution of Settlements: Origin and distribution pattern of rural settlements and urban centers (with special reference to India); Rural Settlement: Definition, nature and characteristics of rural settlements. Evolution and growth of rural settlements and their causes: Old and New Worlds; Siting and location of rural settlements; Distribution, spacing, and nature of dispersion; Types and patterns; Morphology of village: examples from Germany, Japan, Israel, African countries; Rural-service centres: nature, hierarchy, service area, and interaction.

Unit III-Settlement Structure: Models explaining morphological pattern of rural settlements (with special reference to India), shape analysis of rural settlements and urban center; Social segregation in rural areas; Census categories of rural settlements

Unit IV-Settlement Hierarchy: Theory of Walter Christaller and August Losch, Measurements of centrality, Hierarchy of settlements in India.

### **Books Recommended**

- Daniel, P. (2002): Geography of Settlement. Rawat Publications., Jaipur and New Delhi.
- Eidt, R. C., Singh, K. N. and Singh, Rana, P.B., (eds.) (1977): Man, Culture and Settlement. Kalyani Publishers., New Delhi.
- Ghosh, S. (1999): A Geography of Settlements. Orient Longman, Kolkata.
- Hudson, F. S. (1976): A Geography of Settlements. MacDonald and Evans, New York.
- Mitra, A. (1960): Report on House Types and Village Settlement Patterns in India. Publication Division, Govt. of India, New Delhi.
- Mosley, M.J. (2005): Rural Development: Principles and Practice. Sage Publication, London.
- Oliver, P. (1987): Dwellings. The House across the World. University of Texas Press, Austin.
- Rapoport, A. (1969): House, Form and Culture. Prentice-Hall, Inc., Englewood Cliffs, NJ.
- Rykwert, J. (ed.) (2004): Settlements. University of Pennsylvania Press, University Park, USA.

## **2. RURAL DEVELOPMENT PROGRAMMES AND POLICIES**

Unit I-Introduction to Rural Studies – Definition of Rural Areas – Meaning of Development and Rural Development – Causes of Rural Backwardness.

Unit II-Martandam, Baroda, Firka Development, Nilokheri and Etawa Pilot Project.

Unit III-Community Development Programme and National Extension Service – Panchayati Raj Institutions – 73<sup>rd</sup> Constitutional Amendment Act – Transfer of Functions and Powers to PRIs.

Target Group Programmes – Swarnajayanti Gram Swarajgar Yojana – Micro Finance and Self-help Groups for Women Empowerment.

Unit IV-Employment Generation programmes – MGNREGS: Strategy, Implementation mechanism, Progress and Problems – Prime Minister's Rojgar Yojana; National Social Assistance Programme – Rastriya Swasthya Bhima Yojana – Aam Admi Bhima Yojana.

Unit V-Rural development programmes of West Bengal – kanyashree prakalpa; Sabuj sathi, jal dharo jal bharo, etc

Unit VI-UN, World Bank and IMF sponsored Rural Development experiments.

### **Minor. (Stream)-1X4=4credit**

#### **1.** **RURAL LIVELIHOOD**

Unit I-Concept and definition of rural livelihood

Unit II-Indicators of rural livelihood

Unit III-Levels of living

Unit IV-Framework for livelihood analysis

Unit V-Livelihood strategies

Unit VI-National Rural Livelihood Mission

Unit VII-National Food Security Mission

## **Multidisciplinary—1X3=3credit**

### **1. AGRICULTURAL MARKETING**

Unit I-. Agricultural Marketing: Concepts and Definition, Scope and subject matter, Market and Marketing: Meaning, Definitions, Components of a market, Classification. Market structure, Marketing structure, Market functionaries or agencies, Marketing channels: Meaning, Definition, Channels for different products. Market integration, Types of Market Integration. Marketing efficiency: Meaning, Definition, Marketing costs, Margins and price spread, Factors affecting the cost of marketing, Reasons for higher marketing costs of farm commodities, Ways of reducing marketing costs.

Unit II- Producer's surplus: Meaning, Types of producers surplus, marketable surplus. Marketed surplus, importance, Factors affecting Marketable surplus; Price Characteristics of agricultural product process, Meaning; Need for Agricultural Price Policy. Risk in Marketing: Meaning and importance, Types of Risk in Marketing. Speculations and Hedging, Futures trading, Contract farming.

**AEC—1X2=2 credit**

1. Modern Indian language

to be provided by University

**SEC-1X3=3credit**

1.

Introduction to computer application-2

**CVAC—1X3= 3 credit**

1. Tagore Studies-II

to be provided by University

**Summer—Internship-1 month or Vocation=4 credit**

**TOTAL= (46 +4 ) CREDIT**

**GRAND TOTAL FOR CERTIFICATE COURSE= (46 +4 ) CREDIT**

## **BRS-DIPLOMA COURSE**

### **III & IV Semester-Total-Credit (40 +4 )**

## **Semester-III-20 credits**

**Major (Core)—2X4=8 credit**

### **1. Advanced Economics for Rural Studies-I**

*This course is designed to give students basic idea of cognitive behaviour of human being in their different roles in market economy. The idea developed through this course would help students to analyse and design development perspectives of rural economies and its people.*

Unit I-. Individual Choice-Utilitarian Approach-- From Cardinal to Ordinal Approach- Marshall, Hicks, Samuelson; Revealed preference theory; Expected utility theory. Ryan And Pearce-Ch-1 and 2; Koutsoyiannis-ch-2; Green et. al -ch-2,3

Unit II- Introduction to Social Choice -Individual Welfare to Social Welfare— New Welfare Economics-Compensation principle; Evolution of choice theory-theories of Pareto, Arrow, Sen, Bergson. Microeconomics -Gravelle and Rees-ch-17; Advanced economic theory-H.L. Ahuja-ch-48 A course in Microeconomic Theory-David M. Kreps-Ch-5-p-156-181; On Social Choice theory-Arrow-ch-2,3,5

Unit III- Introduction to Public Choice- Introduction–Politics and Economics (Smith Vs Aristotle-Plato-Socrates); Public choice and Governmentality. Reasons for collective choice—allocative efficiency and redistribution; Choice of voting rule. Dennis Mueller-Public Choice--Ch—2, 4

Unit IV-Introduction to Behavioural economics-- what is behavioural economics? Introduction to the themes and methods of behavioural economics. Anticipation and information avoidance as introductory example; Making Choices Under Risk: Prospect Theory; Heuristics and Biases Bernheim, B. Douglas, Stefano DellaVigna, and David Laibson. 2018. “Handbook of Behavioral Economics.”Elsevier.

## **2. RURAL SOCIOLOGY**

Unit- I -Rural social Structure

Rural Sociology: Origin and Scope, Nature

Structure of Village Society, Varna-Caste System, Tribe: Culture, economy and polity, Marriage and Family in India: Recent Trends and Legislations, Green Revolution, Panchayati Raj System

Unit II -Theories

Talcott Parsons; Erving Goffman; Bronislaw Malinowski; Merton ; Alfred Schutz; Anthony Giddens

Unit III -Rural Social Stratification

Social Stratification: Meaning and definition, Dimensions of Stratification, Theories of Stratification – Functionalist, Marxist, Weberian. Social mobility and its determinants.

The Caste-system in India: Origin and Features. Caste and Class, Jajmani System, The Dominant Caste, Sanskritisation, Concept of Dalit, Changes in Caste system, Caste-Class-Power-Inequality

#### Unit IV Rural Social Problems

Rural Poverty and Unemployment, Migration, Rural Health and Sanitation, Food Security, Landlessness, Indebtedness: Causes and Effects, Caste Atrocities and Gender Violence, Farmer Suicide, Alcoholism, Religious Fundamentalism

### **Minor. (Stream)-1X4=4credit**

1

### **RURAL SOCIAL THOUGHTS**

Unit I M.K. Gandhi:

Biography and Impact of Others on Gandhi

Thoughts of Gandhi- Truth and Non-Violence, Satyagraha, Swaraj, Swadeshi, Industrialisation and Critique of modern civilisation,

Unit II Dr. B.R. Ambedkar:

Biography and Impact of Others on Gandhi

Thoughts of Ambedkar- State and Democracy, Nation Building, social Justice, Idea of Good Society, Education

Unit III Debating Gandhi and Ambedkar:

Idea of Indian society, Untouchability, Caste-Varna, Religion and religious Conversion, Indian Village, Land and Labour, Inequality, Women Question

### **Multidisciplinary—1X3=3credit**

### **1. GENDER STUDIES**

Unit I: Social Construction of Gender

Sex and Gender, Masculinity and Femininity, Gender stereotyping and socialization, Patriarchy and Gender Discrimination, Gender Role and Identity. Private-public dichotomy and body politics

Unit-II: Feminism: Meaning and Theories.

Waves of Feminism

Theories of Feminism: Liberal, Radical, Socialist, Eco-Feminism, Dalit Feminism.

Unit III: Gender Discrimination: Differences and Inequality

Sites of Gender Inequality: Family, Work place, caste, class

Problem of LGBT and Third Gender,

Gender Violence: Dalit and Tribal Women, Domestic Violence, Rape, Atrocities, Female Feticide, Infanticide, child Marriage and women trafficking

#### Unit IV Women Empowerment in India

Women Empowerment: Meaning and Dimensions

Constitutional Provisions & Legislation for women empowerment: Panchayati Raj, Hindu Marriage Act, Hindu Succession Act, Triple Talaq, Women Commission of India, Vishakha judgment, Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 ("POSH Act"), Domestic Violence and Dowry Prohibition Legislation

**AEC—1X2=2 credit**

1. English to be provided by University

**SEC-1X3=3credit**

1.

Introduction to computer application-3

## **Semester-IV=22credit**

**Major (Core)—4X4=16 credit**

### **1. RURAL DEVELOPMENT THEORIES AND APPROACHES**

Unit I-Dimensions of Rural Development: Social Economic Political... Rural Development Theories. Basic resource theory, system theory, power structure theory, growth centre theory, dependency theory, rural technology theory, rural economic development theory of JC Kumarappa.

Unit II-Approaches to Rural Development Rural Reconstruction Multipurpose Approach - Community Driven Development (CDD) approach, Broad front approach, sectoral approach, Target group Holistic approach, Growth centre approach, Area Development, Holistic or Integrated development approach, Minimum /Basic needs approach, Employment Oriented approach, participatory approach, Relevance of Tagorean / Gandhian approaches in modern time.

### **2. ADVANCED ECONOMICS FOR RURAL STUDIES-II**

Unit I.-Nature of Macroeconomics-(a) basic macroeconomic concepts and variables-circular flow of income, aggregate output, employment, price level, interest rate; (b) basic concerns and problems of macroeconomics- growth rate of output, inflation rate, unemployment (including recession, depression, stagflation etc.)

Unit II.-National income - its components and measurements (including the problems of measurement), interrelationships between various aggregates



Unit III-. Indian Economy with special reference to rural sector--India's national income: Trend, Structure and Sectoral Composition .Trends in occupational structure-rural; Industry-agriculture relationship.

Unit IV-. India's agrarian economy: Nature and Importance, Trend, Factors, Land Reforms, New Strategy, Green Revolution, Credit and Marketing. Current major problems in the agricultural sector in India. Poverty and inequality in India: Trend and Pattern, Factors, Measure and Alleviation Policy. Growth of non-farm sector.

### **3. QUANTITATIVE TECHNIQUES**

#### *Unit I-Algebra*

Arithmetic and Geometric Progression, Surds and Indices, Logarithm, Linear and Quadratic equations.

Matrix Algebra – Definition of Matrix, Different types of Matrices, Algebra on Matrices, Properties of Determinants, Cramer's rule, Adjoint of a Matrix, Inverse of a Matrix.

Difference equation

#### *Unit II-Basic Coordinate geometry*

Coordinates, Graphs, Straight line, Circle.

#### *Unit III-Calculus*

Function – Definition, types of function

Limit – Elementary idea of limit and continuity

Differentiation – Definition of derivative and its geometrical interpretation, Rules of derivatives, Partial derivatives of simple algebraic functions, Maximum and Minimum value of functions, Examples of applications.

Integration: Standard integral forms, Definite integral, Differential equation

#### *Unit IV-Statistics*

Different types of Data, Collection of data, Tabulation of data, Diagrammatic representation of data.

Frequency distribution, diagrammatic representation of frequency distribution.

Measures of central tendency – Mean, Median, Mode, Quartile.

Measures of Dispersion – Range, Mean deviation, Standard deviation, Coefficient of variation.

### **4. RURAL SOCIAL TRANSFORMATION**

#### **Unit I: Rural Social Transformation**

Theoretical Perspectives: Structural, Functional, Conflict, Symbolic interaction, Post-Modern and their critique, Subaltern Perspective, Capitalism and Social Transformation- Marx, Weber, Durkheim, Modernity and Power - Foucault, Bourdieu, Herbert Marcuse, Jurgen Habermas

#### **Unit II: State-Development and Rural Change**

Modernisation theory, Dependency Theory, Alternative Development Approach and Post-Development, Gender and Development- WID, WAD, GAD

Unit III: Rural-Urban Contrast & Continuum

Urbanism and Urbanization, Factors for the Growth of Cities and Slums, Rural Urban Transition

Lewis, Wirth: Urbanism as a way of Life

Manuel, Castells: Conceptualising the city in the information age

Harvey, David- The Urban Experience

George Simmel- Metropolis and Mental life

Ulrich beck- Risk Society

Unit IV: Modernisation and Rural Social Change in India

Colonialism, nationalism and rise of modern Institutions, debates on colonial modernity, Debating Modernity in India: mistaken' modernity, 'our' modernity, entrenched modernity, Globalisation and Its discontent, Shades of social movements in India

**Minor. (Stream)-1X4=4credit**

1.

**RURAL SOCIAL THOUGHTS**

Unit I M.K. Gandhi:

Biography and Impact of Others on Gandhi

Thoughts of Gandhi- Truth and Non-Violence, Satyagraha, Swaraj, Swadeshi, Industrialisation and Critique of modern civilisation,

Unit II Dr. B.R. Ambedkar:

Biography and Impact of Others on Gandhi

Thoughts of Ambedkar- State and Democracy, Nation Building, social Justice, Idea of Good Society, Education

Unit III Debating Gandhi and Ambedkar:

Idea of Indian society, Untouchability, Caste-Varna, Religion and religious Conversion, Indian Village, Land and Labour, Inequality, Women Question

**AEC—1X2=2 credit**

1. Modern Indian language

to be provided by University

**Summer—Internship-1 month or Vocation=4 CREDIT**

**TOTAL= (42 +4 ) CREDIT**

**GRAND TOTAL FOR DIPLOMA COURSE**

**= (88 +4 ) CREDIT**

# **BRS-DEGREE COURSE**

## **SEM.-V& VI**

**SEMESTER-V=16 CREDIT**  
**Major (Core)—4X3=12 credit**

### **1. RURAL DEMOGRAPHY AND POPULATION STUDIES**

Unit I-Population Studies – Nature and Scope; Relation between Population Geography and Demography. Sources of Data with special reference to India (Census, Vital Statistics and NSS).

Unit II-Population Size, Distribution and Growth – Determinants and Patterns; Theories of Growth – Malthus & Marx, Demographic Transition Theory, Modern Theories of Population & Development, Population-Resource Regions (Ackerman)

Unit III-Population and space: Over Population, Optimum Population, Under Population

Unit IV-Population Dynamics: Fertility, Mortality and Migration – Measures, Determinants and Implications.

Unit V-Vital Statistics; Life Table; Basic concept of Life Table; Types & forms of Life Table.

Unit VI-Population Composition and Characteristics –Rural and Urban Composition; Sex Composition: Types of Sex Ratio; Patterns of Sex Ratio in India and World; Age Composition: Determinants of Age Composition; Methods of Analysis of Age Structure; Patterns of Age Structure in India and World; Concept of Population Aging; Economic Composition: Measurement of Working Population; Determinants of Work Force, Occupational Structure of Population with special reference to India; Work Participation Rate in India, Literacy.

Unit VII-Population policies in developed and less developed countries. India's population policies, Population and Environment, Implication for the future.

### **References**

- Barrett H. R., 1995, Population Geography, Oliver and Boyd Publication
- Bhende A. and Kanitkar T., 2000, Principles of Population Studies, Himalaya Publishing House.
- Chandna R. C. and Sidhu M. S., 1980, An Introduction to Population Geography, Kalyani Publishers. 4.
- Clarke J. I., 1965, Population Geography, Pergamon Press, Oxford.
- Jones, H. R., 2000, Population Geography, 3rd ed., Paul Chapman, London.
- Panda B P, 1988, Population Geography, Granth Academy, Bhopal (Hindi)
- Maurya S D, 2009, Population Geography, Sharda Putak Bhawan, Allahabad (Hindi)
- Chandna, R C, 2006, Population Geography, Kalyani Publishers, Delhi. (Hindi)
- Berclay George W. – Techniques of Population analysis.

Bhattacharya A. – Human migration through the ages, The Calcutta Review, new Series, Vol. III, No. 1, 1977.

Bhattacharya A. – Population Geography of India.

## **2. BEHAVIOURAL ECONOMICS FOR RURAL STUDIES**

*Course emphasises mainly on three fundamental facets of human behaviour consumption, production and exchange, which are universal in the context of market economy. The understanding of this fundamentals would surely help students in serious research in cognitive behavioural sciences in the context of rural economy and its development vis-a-vis market and government intervention.*

Unit I- Heuristics and Biases; Behavioural Game Theory; Social Preferences

Unit II-Happiness and Adaptation; Self-image and Overconfidence;

Unit III-Making Choices Over Time: Discounting and Present-bias

Unit IV-Behavioural Economics and Public Policy-- A Framework for Policy Design, Nudges, and Defaults; Macroeconomics and Finance -behavioural finance; Taxation.

Unit V-Gender Behavioural economics and experimental tools with an overview of some key findings.

References will be supplied during the course to the students directly

## **3. RURAL DEVELOPMENT STRATEGIES AND APPLICATIONS**

Unit I-Strategies of Rural Development – growth-oriented strategy, welfare strategy, responsive strategy, holistic strategy, right based strategy,

Unit II-Strategies of poverty attention, livelihood opportunities infrastructure development, provision of basic amenities – housing and sanitation.

Unit-III-Technology Missions rural development, Result based monitoring system (RBM/PIME)

**Minor. (Stream)-1X4=4credit**

## **1. RURAL FINANCIAL MANAGEMENT**

Unit I-. Basics of Financial Management--Introduction to Financial Management; Financial Process; Scope of Financial Management in Rural areas; Goals of the firm; Objectives of Financial Management in Contemporary Business Environment; Management of Working Capital; Budget and Budgetary Control; Dividend Decisions.

Unit II-: Financial Markets--Meaning and structure of Financial Market; Money Market ;Capital Market; Foreign Exchange Market; Classification of Financial Institutions; Role of Primary and Secondary Market in Rural Development; Stock Exchange; Constitution; Control and Functions of Stock Exchange (Sensex; Nifty); Role of Stock Exchange in Rural Development; Listing of Securities; Different Types of Financial Instruments in India.

Unit III-: Investment Decisions--Time Value of Money; Techniques for Adjusting various Interest Factors; Cash Flow for Investment Analysis; Present Value Discounting; Future Value Compounding ; Investment decisions: Its Need and

Importance; Investment Evaluation Criteria—PW; FW; IRR; CBA of an Agricultural Investment Project; Depreciation Analysis- Causes; Methods- SL and DBM Method; Risk Return Analysis.

## **SEMESTER-VI=16 CREDIT**

**Major (Core)—3X4=12 credit**

### **1. RURAL ENVIRONMENT AND ECOLOGY**

#### **I. Environmental Geography:**

1. Definition, Nature & Scope, Geographer's Approach, Fundamental Concepts
2. Environment – Meaning, Structure & type, components, Geography & environment, Man & environment, Society & environment, Resource & environment, Approaches to the study, Perception of environment in different stages of civilization

#### **II. Ecology & Ecosystem:**

1. Ecology: Definition, Nature & scope, Types, Concepts & Principles.
2. Ecosystem: Concept, structure and functions, Ecological production & Energy flow in the Ecosystems.

#### **III. Environmental Degradation:**

1. Man & environmental processes
2. Environmental degradation – meaning, types, causes and processes.
3. Extreme events, Hazards & Disasters & Environmental pollution
4. Space–time hierarchy of environmental problems: Local, regional and global

#### **IV. Environmental Planning & Management:**

1. Concepts & approaches, Role of environment in development.
2. Environmental programmes and policies – Global, national and local levels  
Salient features of National Environment Bill (1992); Earth Summit, Conventions on biodiversity and climate change, Earth Summit 1992 and others for Restoration of Ecological Balance, People's Movements for Environmental Protection: Chipko movement, Green policies, Anti-nuclear movement.
3. Environmental legislation and education. Primary health care, first aid, yoga and meditation. Agencies of Environmental Protection: Role of-Government Pollution Control Board; NGOs, Educational Institutions and Mass Media.
4. Environmental Management Tools: Environmental Impact Assessment (EIA) - Concept, objectives, principles, steps and different methods; Environmental management plan (EMP); Economic assessment, Cost benefit analysis, Environmental audit, waste audits, life cycle analysis (LCA), green accounting and reporting, Environmental performance evaluation and risk assessment, ISO-14000 series principles, components; environmental labelling; ecological footprint; emission trading; case studies.

Reference Books –

1. Chandna R. C., 2002: Environmental Geography, Kalyani, Ludhiana.
2. Cunningham W. P. and Cunningham M. A., 2004: Principals of Environmental Science: Inquiry and Applications, Tata Macgraw Hill, New Delhi.
3. Goudie A., 2001: The Nature of the Environment, Blackwell, Oxford.
4. Singh, R.B. (Eds.) (2009) Biogeography and Biodiversity. Rawat Publication, Jaipur
5. Miller G. T., 2004: Environmental Science: Working with the Earth, Thomson BrooksCole, Singapore.
6. MoEF, 2006: National Environmental Policy-2006, Ministry of Environment and Forests, Government of India.
7. Singh, R.B. and Hietala, R. (Eds.) (2014) Livelihood security in Northwestern Himalaya: Case studies from changing socio-economic environments in Himachal Pradesh, India. Advances in Geographical and Environmental Studies, Springer
8. Odum, E. P. et al, 2005: Fundamentals of Ecology, Ceneage Learning India.
9. Singh S., 1997: Environmental Geography, Prayag Pustak Bhawan. Allahabad.
10. UNEP, 2007: Global Environment Outlook: GEO4: Environment For Development, United Nations Environment Programme.
11. Singh, M., Singh, R.B. and Hassan, M.I. (Eds.) (2014) Climate change and biodiversity: Proceedings of IGU Rohtak Conference, Volume 1. Advances in Geographical and Environmental Studies, Springer
12. Singh, R.B. (1998) Ecological Techniques and Approaches to Vulnerable Environment, New Delhi, Oxford & IBH Publications.
13. Agrawal, K. M. Sikdar, P. K. and Deb, S.C., (2002): A Textbook of Environment, Macmillan India Limited, Calcutta.
14. Ehrlich P. A. H., (1977): Eco-Science: Population Resource and Environment, Freeman, San Francisco.
15. Hussain, Z., (1996): Environmental Degradation and Conservation in North East India, Omsons Publications, New Delhi. 38
16. Mohapatra, A.C., S.K. Barik & C.S. Rao (2000): Man and Environment, Star Publishing House, Shillong.
17. Odum, E. P. (1971): Fundamental of Ecology, W.B. Saunders and Co., Philadelphia.
18. Roa, V. K. and R.S. Reddy (1997): Environmental Education, Commonwealth Publishers, New Delhi.
19. Saini L. D. and R.C. Sharma (1996): Environmental Education, Kalyani Publishers, Gopsons Paper Ltd., New Delhi.
20. Sharma, P. D. (1994): Environmental Biology, Rastogi Publication, Meerut.
21. Sharma, P. D. (1997): Ecology and Environment, Rastogi Publication, Meerut.
22. Trivedi, R.N. (1992): Environmental Problems – Prospect and Constraints, Anmol Publication, New Delhi.

## **2. TOOLS FOR PROJECT MANAGEMENT AND APPRAISAL**

### **Rationale of the course**

*The objective of the course is to make students capable to design viable projects on rural development, particularly in Indian context. The course is structured in such a way that students are abreast with latest project tools and techniques and become capable of formulating projects useful for their advancements in carreers not only in various Government organisation and NGO's but also become budding rural entrepreneurs and become self reliant absolutely.*

Unit I- Project cycle, need of project appraisal, technical feasibility, economic feasibility and financial feasibility of a project concept of present value and future value. Project evaluation considering before and after situation, externalities of project ).Ex, ante, Ex-post and concurrent evaluation .

Unit II- Decision criteria - Pay Back Period, Net present value (NPV), Internal Rate of Return (IRR), Benefit Cost Ratio (B/C Ratio), Average Return on Investment (ARI), Annual cost method

Unit III-Sensitivity Analysis: Private and social costs and benefit of a project, externalities of a project, social discount rate, mutually exclusive projects.

Unit IV-Tools of project management - Activity planning, net work analysis, CPM and PERT methods, Road Mapping, Schedule updating SWOT analysis.

Unit V-Risk analysis in project evaluation and appraisal: Taxonomy of risks, techniques for risk analysis, risk and large projects, uncertainty mitigation strategies.

Reference—Hamdy Taha, rest will be supplied to student during the commencement of courses.

### **3. ADVANCED QUANTITATIVE TECHNIQUES**

Unit I-Correlation – Bivariate data, Scatter diagram, Correlation coefficient, Rank correlation, Spearman's Rank correlation coefficient, Real life applications. Regression – Simple linear regression, Real life applications.

Unit II-Time Series – causes of variation on time series data, components of time series, decomposition-additive and multiplicative models, computation of trends-moving average methods and method of least square.

Unit -III-Probability – Different types of events, Sample Space, Classical definition, addition and multiplication rules of probability (two events), Conditional Probability, Independent events, Elementary knowledge of expectation, variance. Probability distribution – Discrete distributions – Binomial, Poisson – mean, variance, Real life examples, Continuous distributions – Uniform, Normal – mean, variance, Real life examples.

Unit IV-Sample survey – Sample survey versus complete enumeration, biases and errors in sample survey, Different steps in sample survey, Random sample, Practical methods of drawing random samples, subjective and objective sampling, non-probabilistic, probabilistic, mixed sampling, Simple random sampling – with and without replacement, stratified random sampling, systematic sampling, purposive sampling, quota sampling, multistage sampling.

Unit V-Point estimation – concept of parameter, statistic, estimator, estimate, minimum variance unbiased estimator. Interval estimation – elementary knowledge of confidence interval.

**Minor. (Stream)-1X4=4credit**

#### **1. RURAL FINANCIAL MANAGEMENT**

Unit I-. Basics of Financial Management--Introduction to Financial Management; Financial Process; Scope of Financial Management in Rural areas; Goals of the firm;

Objectives of Financial Management in Contemporary Business Environment; Management of Working Capital; Budget and Budgetary Control; Dividend Decisions. Unit II:- Financial Markets--Meaning and structure of Financial Market; Money Market ;Capital Market; Foreign Exchange Market; Classification of Financial Institutions; Role of Primary and Secondary Market in Rural Development; Stock Exchange; Constitution; Control and Functions of Stock Exchange (Sensex; Nifty); Role of Stock Exchange in Rural Development; Listing of Securities; Different Types of Financial Instruments in India.

Unit III:- Investment Decisions--Time Value of Money; Techniques for Adjusting various Interest Factors; Cash Flow for Investment Analysis; Present Value Discounting; Future Value Compounding ; Investment decisions: Its Need and Importance; Investment Evaluation Criteria—PW; FW; IRR; CBA of an Agricultural Investment Project; Depreciation Analysis- Causes; Methods- SL and DBM Method; Risk Return Analysis.

**Summer—Internship and vocational-1 month=4 credit**

**TOTAL= (32 +4 ) CREDIT**

**GRAND TOTAL FOR DEGREE COURSE**

**= (120 +4 ) CREDIT**



# BRS-HONOURS DEGREE WITH RESEARCH

**Semester-VII; Credit=20**

**Major (Core)—3X4=12 credit**

## **1. RESEARCH METHODOLOGY**

Unit I-Source of data – Primary and Secondary, Electronic and documentary, Method of data collection (including Participatory Method); ii). Secondary data sources and Indian official statistics; iii). Census Survey method; iv). Small and large Survey method – Social, Economic and Ethnographic.;

Unit II- Rural Research: Nature, Meaning, Importance, Scope. Quantitative and Qualitative research, Action research and Experimental Survey method; Concept, Hypothesis, Sampling and Research Design, Techniques of Data Collection: Questionnaire, Interview Schedule, Observation, Survey and Case study.

Unit III- Participatory Research: Oral history and Visual Research; Social Mapping, Vulnerability Mapping;

Unit IV- Participatory Research Methods- Participatory Rural Appraisal (PRA), Rapid appraisal method;

## **2. GEOMATICS**

### **Rationale of the course**

*The paper geomatics mainly emphasises on the cartographic mapping techniques and some recent technical development like Remote Sensing and GIS. The knowledge of mapping and cartography will help the student to represent any spatial development (special reference with statistics) more attractively and accurately. Cartography also makes a direct appeal to the mind with the help of maps and diagrams many complicated facts in a simplified form. GIS based mapping software provide functions for spatial and non-spatial data input through digitisation of scanned maps, auto transformation of scales, projections, design, presentation, query and analysis. The development of mobile computing has increased the use of digital mapping in applied sciences like environmental science, land surveying etc. the main function of this technology is to produce maps that give accurate presentations of a particular area, detailing major other interests. The main use of these maps is the GPS satellite network, used in standard automotive navigation system*

Unit I- Generation of Resource data’ Sources acquisition, structure, transformation into map/diagram/visual presentation for better comprehension. Cartographic products; diagrams, maps, charts, types of maps- components - Techniques of Cartography; Isopleths, choropleth, chorochromatic, Choroschematic etc.- use of maps.

Unit II- Geographical Information Systems--Introduction to GIS - definitions, concept and history of developments in the field of information systems; Computer

fundamentals for GIS; Hardware and software requirements for GIS; Coordinate System and Projections in GIS - Conic, cylindrical and planner.;

Unit III:- Data structure and Analysis--Data structure and formats; Spatial data models - Raster and Vector; Data inputting in GIS; Data base design - editing and topology creation in GIS; Spatial data analysis - significance and type, Attribute Query, spatial query; Vector based spatial data analysis; Raster based spatial data analysis; Buffer analysis.

Unit IV- GIS Modeling and GIS Packages--Data analysis and modelling in GIS - types of GIS modelling; Decision support systems; Overview of image processing & GIS Packages - ARC GIS, ERDAS, MAP INFO, ILWIS, GEOMEDIA, IDRISI; Recent Trends in GIS - AM/FM, Virtual 3D GIS, OLAP, Internet GIS, Open GIS.

Unit V-Remote Sensing ; definition - advantages - components of remote sensing- products of remote sensing - image processing - use of remote sensed data.

**Basic Books:**

1. Chang.T.K., 2002:Geographic Information Systems. Tata McGrawHill.

Additional Books:

1. Anji Reddy, M. 2004 : Geoinformatics for Environmental Management; B.S. Publications.

2. Heywood.I, Cornelius S, CrverSteve. 2003: An Introduction to Geographical Information Systems.PearsonEducation.

3. Ram Mohan Rao. 2002: Geographical Information Systems. Rawat Publication.

4. Skidmore A. 2002: Environmental modeling with GIS and Remote Sensing. Taylor and Francis.

5. Tar Bernhardsen. Geographical Information Systems. John Wiley.Wise S.2002: GIS Basics. Taylor Publications

### 3. ELEMENTARY ECONOMETRICS

*Elementary econometrics.*

Unit I- Sampling distribution – Sampling distribution of sample mean for normal distribution, standard error. Chi square and t-distribution – definition.

Unit II-Hypothesis testing – Concept of Statistical hypothesis, Null hypothesis and alternative hypothesis, simple and composite hypothesis, test statistic, critical region, level of significance, type -I and type – II error, power of a test. Some important tests – Z- test, t -test, Chi square test, Real life examples.

Unit III- Elementary econometrics – Classical linear regression model – assumptions, estimation of parameters and error variance, Gauss Markov theorem, Concept of  $R^2$  and adjusted  $R^2$ , Point estimation and interval estimation of the model parameters, Testing of hypothesis for model parameters.

Unit IV-Concept of heteroscedasticity and Autocorrelation, Multicollinearity, dummy variables, nature and use of dummy variables, case of dependant dummy variable, dummy variable trap.

Unit V-Simultaneous equations models – structural and reduced form of equations, identification problem.

Unit VI-Logit model and logistic regression.

**Minor. (Stream)-1X4=4credit**

### **1. SOCIAL EXCLUSION AND INCLUSION IN RURAL AREAS-I**

Unit I Concepts:

Social Exclusion; humiliation, inequalities- social, economic and political, stigmatization, discrimination, deprivation, marginalisation, and, New Economics Policy of (i) Liberalization, (ii) Privatization, Globalization.

Unit II Forms of Social Exclusion:

Religion, Race, Caste, Class, Gender, Indigenous/Adivasi, Disability, Migrants and Refugees, Region, Language and Ethnicity

**Research Project/ Dissertation —1x4=4credit**

**TOTAL= (16 +4 ) =20 CREDIT**

## **Semester-VIII**

**Major (Core)—2X4=8 credit**

### **1. RURAL LABOUR STUDIES**

Unit I-. Labour Economics-I-. Nature, scope and development of Labour Economics, Labour Force and Labour Market; Employment and Unemployment; Labour in Economic Development:

Unit II-. Labour Economics-II--Labour Wage and Social Security--Regulation of Wage; Wage Policy; Social Security: Labour Productivity;

Unit III-. Trade Unionism, Labour Movement

Organisation of Labour: Role and Function; Structure and Government; Union Finance:

Problems and perspective of Trade Union; Labour Movement; Foreign Labour Movement:

Unit IV-. Labour Legislation--Labour Legislation; Normative Labour Legislation; Wage Legislation; Social Security and Welfare Legislation:

Unit V-. Labour Administration: Labour Relations; Labour Problems, Perspective and Policy:

## **2. RURAL PLANNING THEORIES AND PRACTICES**

### **Rationale of the course**

*Aims and objectives of this course is to impart training on rural planning processes in similar lines that are taught in different institutes on Urban planning process There is dearth of academic materials regarding rural planning that have acclaimed scientific basis. This course is an endeavor to give students taste of different urban and regional planning theories and models that can well be adapted in different levels of rural planning in India along with their broad inter-relationships and components of settlements*

Unit I-. Definition of planning; the necessity and rationale of planning; the characteristics of planning., The planning process; Normative planning, positive planning and ameliorative planning. Planning and globalisation; Principal decisions in Planning - setting priorities, resource mobilization, savings and capital formation, role of external assistance.

Unit -II- Models of Planning: Pluralism in Planning; Systems. Approach to Planning: Rationalistic and Incremental Approaches, Mixed Scanning, Advocacy Planning and Action Planning, Equity Planning, disjointed incremental, structure planning; blue print planning; process or adaptive planning; rational -comprehensive planning; mixed scanning approach; Choice theory and advocacy planning

Unit III- Types of Plans: Master Plan, Development Plan, Structure Plan, Strategic Plan, Sectoral Plan, Zonal Plan, Local Area Plan, Action Area Plan Etc.

Unit -IV-Theories of Settlement Systems in Regional Context -Spatial Models of Location, Size and Spacing of Settlements; Rank Size Rule; Classification of Settlements

Suggested Readings:

1. Planning Theory, Healey P., Pergamon Press
2. Planning Theory, Allmendinger Philip, Palgrave MacMillan

**Minor. (Stream)-1X4=4credit**

### **1.** **SOCIAL EXCLUSION AND INCLUSION IN RURAL AREAS-II**

Unit I Theories:

Alienation – Karl Marx  
Hulary Silver-Social Exclusion  
Amartya Sen- Social Exclusion  
Sukdeo Thorat Social Exclusion and Inclusion  
Gopal Guru- Humiliation  
Victor Turner- Liminality  
Normative theory of social exclusion  
Unit II- Inclusion and Inclusive Policy:

Gandhi and Ambedkar on Inclusion, Poona Pact Debate, Social Justice and Inclusion, Social Movement for Inclusion, Reservation policies in India, Constitutional Provisions and Governmental Efforts

**Research Project/ Dissertation —2x4 =8credit**  
**TOTAL= (12 +4+4 ) =20CREDIT**

**Summer—Internship and vocational-1 month=4 credit**

**GRAND TOTAL FOR HONOURS (WITH RESEARCH) COURSE= (160 +4 ) CREDIT**