

Basic Elements of Economics

Content	Marks/Classes
Unit 1: Basics of data collection - Primary and Secondary, Census versus Sample Survey, Distinction between population and sample, Distinction between population parameters and sample statistics, Principal steps in a sample survey, Methods of sampling - random, stratified, multi-stage and	25/20 <i>Biswas</i>

systematic random sampling. Measures of Central Tendency – Mean: Arithmetic mean (simple and weighted), Geometric mean, Harmonic mean, Median, Mode. Measures of Dispersion: Range, Inter-quartile deviation, mean deviation, standard deviation, Variance.	
Unit 2: Index Number - Meaning and Types, Construction, uses and limitations of index numbers, Cost of Living Index Numbers. Consumer Price Index Numbers for Agricultural Labourers in India, Consumer Price Index Numbers for Industrial Workers in India (concept only)	10/8 <i>Biklipsis</i>
Unit 3: Economic growth and development, Per Capita Income (PCI) as a measure of development, International comparison of PCI and role of Purchasing Power Parity (PPP). Human Development Index (HDI), Concept of Sustainable development .	25/10 <i>Biki</i>
Unit 4: Financial System and its functions, Formal and informal financial system; Components of a financial system and their interdependence, Relationship between financial system and economic growth	20/10 <i>Amanika</i>
Unit 5: Basic features of Indian economy, Trend of national and per capita income, Sector-wise composition of GDP, Basic demographic features – age, sex composition , density, urbanization, Labour force and Work force and Participation rate, Unemployment, Occupational Pattern, Demographic Dividend.	20/12 <i>Plom</i>

References

- A.N. Agarwal: Indian Economy - Problems of Development and Planning, New Age International Publishers
- B. V. Pathak: Indian Financial System, Pearson Education, Singapore.
- Debraj Roy: Development Economics
- Michael P. Todaro, Stephen C. Smith: Economic Development
- Padmalochan Hazarika: Statistical Methods for Economics, Ashok book Stall
- S.C. Gupta: Fundamentals of Statistics, Himalayas Publishing House, Seventh Edition
- S.K. Misra, V K Puri: Economics of Development and Planning
- V.K. Puri and S.K. Mishra: Indian Economy, Himalay Publishing House
- William G. Cochran: Sampling Techniques, John Wiley, 2007.

Particular of course designer:

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SIXTH SEMESTER DSE

ECO-HE-6016: ENVIRONMENTAL ECONOMICS

Course Description

This course focuses on economic causes of environmental problems. In particular, economic principles are applied to environmental questions and their management through various economic institutions, economic incentives and other instruments and policies. Economic implications of environmental policy are also addressed as well as valuation of environmental quality, quantification of environmental damages, tools for evaluation of environmental projects such as cost-benefit analysis and environmental impact assessments. Selected topics on international environmental problems are also discussed.

Course Outline

1. Introduction

Basic concepts: Environment, Ecology, Economy and the ecosystem. Definition and scope of environmental economics, why study environmental economics. Interaction between the environment and the economy, environmental economics and ecological economics, environmental economics and resource economics. Review of microeconomics and welfare economics: the utility function, social choice mechanism, the compensation Principle and social welfare function (concepts only).

2. The Theory of Externalities

Pareto optimality or Pareto efficiency, Externalities: meaning and types of externality, market failure: meaning, market failure in the presence of externalities; market failure and public goods, is environment a public good? Property rights and the coase theorem.

3. The Design and Implementation of Environmental Policy

Environmental Policies: an overview; Nonmarket and market based instruments of Environmental Policy: command and control (CAC) approach, economic instruments like pigovian taxes and effluent fees, tradable permits and mixed instruments. Monitoring and Enforcement: What is monitoring and enforcement? Penalties, cost of abatement. Damages from pollution. Incentives to sources to comply with environmental regulations.

4. International Environmental Problems

Nature of environmental problems: transboundary pollution, Climate change, global warming, ozone depletion and bio-diversity loss; Trade and environment: pollution haven hypothesis.

5. Measuring the Benefits of Environmental Improvements

Non-Market values: use and non-use values and optional value, measurement methods: Direct method-contingent valuation and indirect method-hedonic pricing methods, value of statistical life, their applications and limitations.