

A MINORITY RUN COLLEGE. AFFILIATED TO UNIVERSITY OF CALCUTTA RECOGNISED UNDER SECTION 2(F) & 12 (B) OF THE UGC ACT, 1956

#### **Programme Specific Outcomes (PSO)**

#### **Economics (Honours) 2019-20**

- 1. Acquiring valuable knowledge on of the basic tenets of Economics that affect the socio-economic lives of every citizen of any nation.
- **2.** Increasing employability prospects both at the corporate and/or academic levels.
- **3.** Acquiring knowledge to undertake research in the future
- **4.** Making students equipped to undertake multi-disciplinary courses and projects in the future



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#### **Programme Outcome (PO)**

#### **Economics (Honours) 2019-20**

	Program Outcome	Description
PO1 Domain Knowledge		Have a clear and comprehensive understanding of the basic concepts and fundamental principles of the subject. Simultaneously they should also be able to logically and empirically process the various theoretical frameworks.
	Method of Measurement:	Assessment (Internal & Final)
PO2	Critical Thinking	Engage in rational, objective and independent thinking so as to identify, define and logically evaluate ideas; solve problems systematically and detect inconsistencies in arguments.
	Method of Measurement:	Assessment (Internal & Final)
PO3	Communication Skills	Clearly, succinctly and successfully deliver, receive and disseminate knowledge/ concepts - oral, written or otherwise.
	Method of Measurement:	Regular Communication Activity Internal Assessment
PO4	Spirit of Enquiry and Lifelong Learning	Have a curious and open mind, willing to attend to and/or accept new or differentiated ideas.
	Method of Measurement:	Internal Assessment



PO5	Spirit of Research and Innovation	conditions and situations, such that scientific objectivity and	
	Method of Measurement:	research and enquiry which are fundamental for future policy initiatives and social growth.  Assessment (Dissertation)  Take a normative i.e. a value-based approach to various social conditions and situations, such that scientific objectivity and research finds a social acceptability  Regular Teacher-Student Interactive Sessions  Access to scientific information that is a prerequisite for	
PO6	Social Concerns and Ethics		
	Method of Measurement:	Regular Teacher-Student Interactive Sessions	
PO7	Environment and Sustainability	Access to scientific information that is a prerequisite for increased environmental awareness and knowledge of sustainable development.	
	Method of Measurement:	Regular Teacher-Student Interactive Sessions	



SUB: ECONOMICS (Honours) 2019-2020	
PAPER	COURSE OUTCOME (CO)
SEMESTER I	
PAPER CORE COURSE I	
INTRODUCTORY MICROECONOMICS (ECOA-CC-1-1-Th-Tu)	
Unit One: Exploring the subject matter of Economics	
Scope & Method of Economics, Principles of Microeconomics, Interdependence & Gains from Trade, Reading and working with graphs	1.1. Acquiring knowledge to think in the economic way.
Unit Two: Demand and Supply: How Markets Work	
Elementary theory of Demand, Elementary theory of Supply, Elementary theory of Market Price,	1.2. Acquiring knowledge of markets and welfare
Unit Three: Market & Adjustments	
The evolution of Market economies, The Decision Takers, The Concepts of Markets, Different goods	1.3. Acquiring clear knowledge of Market and Adjustments
Unit Four: Market Sensitivity & Elasticity	
Importance of elasticity in Choice decisions, Method of Calculation, Demand and Supply elasticities, Income & Cross Price elasticity, Applications	1.4. Understanding Market Sensitivity and Elasticity
Unit Five: Government Intervention	



The economic role of government with respect to market, Comparison of markets with or without government	1.5. Critically analyzing the economic role of Government with respect to markets
Unit Six: Utilitarian Approach	
The history of Utility theory, Utility in Cardinal Approach, Ordinal Utility, Consumers equilibrium and demand curves	1.6. Acquiring knowledge of Utilitarian Approach
PAPER CORE COURSE II	
MATHEMATICAL METHODS IN ECONOMICS – I (ECOA-CC-1-2-Th-Tu)	
Unit One: Preliminaries	
Sets & set operations, Convex sets and Functions, Limit & Continuity, Uses of the Concept of Continuity	2.1. Acquiring knowledge on the various concepts and tools of mathematics applicable to economic analysis
Unit Two: Functions of one real variable	
Continuous functions of different types and their graphs, Concept of Derivatives, Applications in Economics - concepts of elasticity; marginal and average functions	2.2. Acquiring knowledge on single variable functions and how to functionally establish basic economic principles and laws
Unit Three: Single Variable Optimization	
Local & global optima, Interpretation of necessary and sufficient conditions, Applications in Economics - optimization of profits and cost	2.3. Acquiring knowledge on optimization and their economic application
Unit Four: Integration of Functions	
Integration of different types of functions, Method of substitutions and integration by parts, Applications in Economics - obtaining total from marginal	2.4. Acquiring knowledge on integral algebra and their economic application
Unit Five: Matrix Algebra	



Matrix, Rank of a Matrix, Determinants and inverse of a square matrix, Solution of a system of linear equations, System of non-linear equations, The concept of comparative statics, Application in I-O analysis	2.5. Acquiring knowledge on matrix algebra and how to empirically interpret microeconomics and macroeconomics principles
Unit Six: Game Theory	
Concept of games, strategies, payoffs, Zero sum games, Dominant strategy equilibrium, Nash equilibrium, Nash equilibrium in context of some common games	2.6. Acquiring knowledge on game theory
SEMESTER II	
PAPER CORE COURSE III	
INTRODUCTORY MACROECONOMICS (ECOA-CC-2-3-Th-Tu)	
Unit One: National Income Accounting	
Macroeconomic data- Basic concepts of National Income accounting. The circular flow, Concepts of GNP, GDP, NNP, and NDP at market price and at factor cost, Measurement of National Income-Value Added Method and Expenditure Method. The problem of double counting, Role of Government. Concepts of Corporate Income, Corporate Savings, Personal Income, Personal Disposable Income and Personal Savings, Saving-Investment gap and its relation with budget deficit and trade surplus, National Income accounting and cost of living. Basic idea of India's national income	3.1. Learning the basic economics behind the functioning of a nation and the world
Unit Two: Simple Keynesian Model in a Closed Economy	



The Simple Keynesian Model (SKM) in a Closed Economy without Government- the Keynesian Consumption Function; the Keynesian Saving Function; income determination in SKM; stability of equilibrium; the concept of effective demand- the concept of demand-determined output; The Simple Keynesian Multiplier; paradox of thrift; the SKM in a Closed Economy with Government; government expenditure and tax; the government expenditure multiplier and the tax rate multiplier; the balanced budget multiplier; the budget surplus; effects of tax changes and government purchases on budget surplus; the full employment budget surplus.	3.2. Acquiring knowledge on the determination of the basic macroeconomic indicators in a demand-constrained economy
Unit Three: The Classical System	
Basic ideas of Classical Macroeconomics, Say's Law and Quantity Theory of Money, Loanable fund theory, The Classical Theory of Income and Employment determination, Full Employment and wage- price flexibility, Classical Dichotomy and Neutrality of Money	3.3. Developing ideas about policymaking
Unit Four: Macroeconomic Foundations I	
The bond market as the mirror image of the money market-the Walras Law. Relationship between bond price and rate of interest- the concept of Keynesian liquidity preference schedule-speculative demand for money and liquidity trap, Investment function: Concepts of Marginal productivity of capital, marginal efficiency of capital (MEC) and marginal efficiency of investment (MEI)- Jorgenson's neo-classical theory- Acceleration principle- fixed and variable. Multiplier-accelerator interaction	3.4. Acquiring knowledge on the macroeconomic foundation
PAPER CORE COURSE IV	
MATHEMATICAL METHODS IN ECONOMICS – II (ECOA-CC-2-4-Th-Tu)	
Unit One: Functions of several variables	



Continuous & differentiable functions, Euler's theorem, Implicit function theorem, Economic Applications	4.1. Acquiring knowledge on the various concepts and tools of mathematics applicable to economic analysis
Unit Two: Multi-variable Optimization	
Optimization of non-linear functions, Constrained optimization with equality constraints, Inequality constraints, Value function and Envelope theorem, Optimization of Linear Functions, LPP and Applications	4.2. Acquiring knowledge on the methods of analyzing and interpreting economic theories and concepts with the help of mathematical techniques
Unit Three: Difference Equations	
Finite Difference, Economic Application	4.3. Developing quantitative analytical in algebra skills necessary for future research
Unit Four: Differential Equations	
Solution of Differential Equation, Economic Application, Qualitative Graphic Solution	4.4. Developing quantitative analytical skills in algebra necessary for future research
SEMESTER III	
PAPER CORE COURSE V	
INTERMEDIATE MICROECONOMICS – I (ECOA-CC-3-5-Th-Tu)	
Unit One: Theories of Consumer Behaviour and Applications	
Inter-temporal choice (saving and borrowing), Revealed Preference, Choice under Uncertainty, Application of Consumer Behaviour in Construction of Price Indices	5.1 Acquiring advanced knowledge on Theories of Consumer Behaviour and Applications
Unit Two: Production and Costs	



Technology, Types of Production Function, Cost Structure	5.2 Acquiring knowledge on the concepts and applications of the theories of Production and Costs
Unit Three: The Firm and Perfect Market Structure	
Organisation, Firms and Profit Maximisation, Marginal Revenue, Marginal Cost and Profit Maximisation, Perfect Competition, Consumer and Producer Surplus, Welfare and efficiency	5.3 Developing the ability to understand different market structures and to focus on Perfectly Competitive Market and consequences of Government Intervention
Unit Four: Input Market in Perfect Competition	
Basic Concepts, Marginal Productivity theory of distribution, Labour Market, Land Markets and rent	5.4 Acquiring knowledge on the Factor markets in the presence of Perfect Competition
PAPER CORE COURSE VI	
INTERMEDIATE MACROECONOMICS – I (ECOA-CC-3-6-Th-Tu)	
Unit One: Income Determination in the Short-run (Part-II): The IS-LM Model	
IS-LM Model - equilibrium, stability and comparative statics, Crowding out, Effects of fiscal and monetary policies	6.1. Acquiring advanced knowledge on the determination of the basic macroeconomic indicators in a demand- constrained economy
Unit Two: Aggregate Demand and Aggregate Supply- the Complete Keynesian Model	
Derivation of aggregate demand curve, Derivation of aggregate supply curves both in the presence and absence of wage rigidity, Equilibrium, stability, and comparative statics-effects of monetary and fiscal policies. Effects of wage cut, Unemployment equilibrium and its causes- possible solutions including real balance effect	6.2. Acquiring knowledge on the complete modelling of an underemployment economy
Unit Three: Keynes vs. Classics	



Keynesian vs classical system, Hybrid models under Classical/Keynesian framework, Friedman's restatement of classical ideas	6.3. Developing the ability to distinguish between the modeling of an underemployment economy and a full-employment economy
Unit Four: Money Supply, Monetary Policy and Government Budgetary Operations	
Measures of money supply with special reference to India (M1,M2, M3 and M4) Balance sheet view of money supplied by the banking sector as a whole, High powered money –definition; Balance sheet of Reserve Bank of India and High powered money; Balance sheet of Commercial banks and basic ideas of money multiplier theory, Deposit multiplier, currency multiplier, reserve multiplier, credit multiplier and money multiplier in the context of the theory of money supply, Interest sensitivity of money supply and the slope of the LM curve, Monetary policy – Open Market Operations, Statutory Liquidity Ratio, Bank rate, variable reserve ratio, repo rate, Government Budget Deficit and Deficit Financing-Indian illustration. Deficit financing and monetary policy	6.4. Acquiring knowledge on the fundamental concepts of money supply and its control
Unit Five: Inflation, Unemployment and Expectations	
The concept of Inflationary Gap; Demand pull vs. Cost push inflation; Mark-up inflation; The concept of stagflation, Central Bank's role in controlling inflation: Monetary policy; Inflation and unemployment trade-off, Four models of aggregate supply: The Sticky-Wage Model, The Worker-Misperception Model, The Imperfect Information Model and The Sticky-Price Model, Deriving the Phillips Curve from Aggregate Supply Curve; Short run and long- run Phillips curve – role of adaptive expectations and rational expectations, Disinflation, Sacrifice Ratio and policy ineffectiveness	6.5 Acquiring knowledge on the concepts, measurements and modelling of inflation and unemployment
PAPER CORE COURSE VII	
STATISTICAL METHODS FOR ECONOMICS (ECOA-CC-3-7-Th-Tu)	
Unit One: Introduction and Overview	
Subject Matter - Distinction between Population & Sample, Representation of data - Graphical & Tabular Methods, Frequency Distribution	7.1. Acquiring knowledge about the basics of Statistics and its application in Economics



Unit Two: Descriptive Statistics	
Measures of Central tendency, Dispersion, Moments, Skewness and Kurtosis, Correlation & Regression	7.2. Acquiring knowledge of different measures of descriptive statistics
Unit Three: Elementary Probability Theory	
Sample spaces and events, Axiomatic definition and properties, Theorem of Total Probability, Conditional Probability, Theorem of Compound Probability, Bayes' Theorem & its application	7.3. Acquiring clear knowledge of basic elements of probability
Unit Four: Probability Distributions	
Random variables - discrete & continuous, Probability distributions – p.m.f. & pdf, Expectation - mean, variance, moments, m.g.f., Binomial, Poisson & Normal distributions, Joint distribution functions - discrete & continuous	7.4. Understanding Probability Distributions of discrete and continuous type
Unit Five: Sampling	
Principle steps in sample survey - population, sample, parameter, statistic; Methods of Sampling - SRSWR, SRSWOR, Stratified, Multi-stage; Sampling distribution of sample mean and proportion	7.5. Acquiring knowledge of the different methods of sampling and its applications
Unit Six: Statistical Inference	
Point estimation, Basic principles of OLS, MLE, Method of Moments, Interval Estimation, Testing of Hypothesis - null, alternative, Type I, Type II, p value	7.6. Critically analyzing the basic concepts of estimation and statistical inference
PAPER SKILL ENHANCEMENT COURSE I (GR. A)	
DATA ANALYSIS (ECOA-SEC-3-1A-Th)	
Unit One: Collection & Representation of Data	



Collection of data - some methodological issues (Census, sample survey), Representation of data, The basics of data management in Stata/ R	SEC-A.1 Learning about data collection and representation, and using a statistical software	
<b>Unit Two: Indian Official Statistics (Basic Concepts)</b>		
Central Statistical Offices - NAS, ASI, IIP, National Sample Survey Office (NSSO), Census of India - Population census 2011, RBI - Handbook of Statistics on Indian Economy	SEC-A.2 Gaining knowledge on official data sources in India, their collection methodology and using such data	
RURAL DEVELOPMENT (ECOA-SEC-3-1A-Th)		
<b>Unit One: Aspects of Rural Development</b>		
Concept of Rural Development, Rural Development vs. Agricultural Development, Role of NGOs in Rural Development, Rural Non-Farm Sector and Rural Development	SEC-A.3 Acquiring knowledge on the various concepts of rural development, agricultural development and rural nonfarm sector	
Unit Two: Panchayats and Rural Development		
Decentralized Planning and Participatory Development, Role of Panchayats in Decentralized Rural Development, Participatory Rural Appraisal, Panchayats and Rural Development in West Bengal	SEC-A.4 Acquiring knowledge and analyzing the role of Panchayats in rural development	
Unit Three: Rural Credit and Self-Help Groups (SHGs)		
Role National Bank for Agriculture and Rural Development (NABARD) for promoting Rural, Constraints of micro-enterprises in rural areas, Credit needs for rural non-farm sector, the concept of Micro credit; Micro credit and the role of Grameen Bank, Need for SHG for formation and features of SHG, SHGs in India	SEC-A.5 Acquiring knowledge and analyzing the role of rural credit and self-help groups for promoting rural development	
Unit Four: Critical Evaluation of Selected Government Programmes and Rural Development		
Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) and Rural Development, Child labour and school dropout in rural areas. Mid-day Meal and Rural Development, National Rural Health Mission (NRHM) and Rural Development, Pradhan Mantri Gram Sadak Yojana (PMGSY) and Rural Development	SEC-A.6 Critically evaluating the Government programs on rural development	
SEMESTER IV		
PAPER CORE COURSE VIII		



INTERMEDIATE MICROECONOMICS – II (ECOA-CC-4-8-Th-Tu)	
Unit One: Imperfect Market Structure	
Monopoly and barriers to entry; Pricing with market power; First, Second and Third degree price discrimination, multi-plant monopoly; Monopolistic competition & Oligopoly	8.1 Developing the ability to understand different aspects of Imperfect market structure and to focus on Monopoly, Monopolistic Competition and Oligopoly
Unit Two: Input Market under Imperfect Competition	
Monopsony and bilateral monopoly in labour market	8.2 Acquiring knowledge and obtain clear and comprehensive understanding of the basic concepts of the topics
Unit Three: General Equilibrium, Efficiency and Welfare	
General Equilibrium and Economic Efficiency, Reasons for Market failure, Pareto efficiency and market failure; Markets with asymmetric information, adverse selection, moral hazards, agency problems	8.3 Learning the basic concepts underlying the theories of General Equilibrium, Efficiency and Welfare
PAPER CORE COURSE IX	
INTERMEDIATE MACROECONOMICS – II (ECOA-CC-4-9-Th-Tu)	
Unit One: Basic Tenets of New Classical and New Keynesian Theories	
New Classical Theory-The concept of rational expectations and the theory of real business cycle- introductory ideas; New Keynesian Theory- nominal rigidities and real rigidities, rigidities in interest rates and credit rationing-introductory ideas	9.1 Understanding the fundamental flaws in traditional Classical and Keynesian macroeconomic models, and hence knowing advanced theories emerging in these two realms
Unit Two: Macroeconomic Foundations -II	
Consumption: Keynesian consumption function; Fisher's theory of optimal intertemporal choice; life-cycle and permanent income hypotheses; Dusenberry's relative income hypothesis; rational expectations and random-walk of consumption expenditure; Demand	9.2 Learning the behaviour and dependence of consumption and demand for money, primarily on income



for money: Regressive Expectations and Tobin's portfolio choice models; Baumol's inventory theoretic money demand.	
Unit Three: Economic Growth	
Harrod and Domar models of economic growth; Solow one sector growth model-golden ruledynamic efficiency; Technological progress; Elements of endogenous growth theory-basic ideas-the AK model	9.3 Acquiring knowledge on the theories of economic growth and hence devising policies to promote long term growth
PAPER CORE COURSE X	
INTRODUCTORY ECONOMETRICS (ECOA-CC-4-10-Th-Tu)	
Unit One: Nature & Scope of Econometrics	
Distinction between Economic Model and Econometric model; Concept of stochastic relation, Role of random disturbance in econometric model; Types of data; Application of Econometrics in different branches of social science	10.1 Understanding the compatibility between econometric theory and statistical analysis
Unit Two: Classical Linear Regression Model (Simple linear regression and multiple linear regression): part 1	
The classical assumptions (basic interpretation); Concepts of population regression function and sample regression function; Estimation of model by method of ordinary least squares (Derivation in simple linear model (SLRM) and multiple linear model (MLRM) with two regressors only); Simple correlation, partial correlation and multiple correlation (Definition, and interpretation in the context of SLRM and MLRM); Limitations of SLRM and additional complications in MLRM; Economic interpretations of the estimated model	10.2 Acquiring knowledge on application of statistical tools in theoretical economic models and doing empirical analysis
Unit Three: Classical Linear Regression Model (Simple linear regression and multiple linear regression): part 2	
Properties of the Least Squares Estimators (BLUE) in SLRM- Gauss-Markov theorem; Qualitative (dummy) independent variables — intercept dummy and slope dummy (only interpretation of the model); Forecasting - Ex-post forecast and Ex-ante forecast, forecast error (only for two variable model)	10.3 Acquiring knowledge on empirical analysis in Economics
Unit Four: Statistical inference in linear regression model	



Use of standard normal, chi2, t, and F statistics in linear regression model; Testing hypothesis; Single test (t test and chi2 test) Joint test (F test); Goodness of fit (in terms of R2, adjusted R2 and F statistic), Analysis of Variance (ANOVA); Statistical significance and economic importance	10.4 Acquiring knowledge on empirical analysis in Economics using Statistical measures
Unit Five: Violations of Classical Assumptions	
Multicollinearity - Consequences, Detection (Variance Inflationary Factor (VIF)) and Remedies; Heteroscedasticity - Consequences, Detection (Lagrange Multiplier test) and Remedies; Autocorrelation - Consequences, Detection (Durbin-Watson test) and Remedies	10.5 Acquiring knowledge on empirical analysis
Unit Six: Specification Analysis	
Omission of a relevant variable; Inclusion of irrelevant variable; Tests of specification errors; Testing for linearity and normality assumptions	10.6 Acquiring knowledge on economic model building and empirical analysis
PAPER SKILL ENHANCEMENT COURSE II (GR. B)	
RESEARCH METHODOLOGY (ECOA-SEC-4-B(2) -Th)	
Unit One: Methodological Issues 1	
Locating the basic issues- theme based literature survey and motivation behind any study- objectives of the study-development of writing skills; Designing the sampling frame in case of field survey-the role of pilot survey; The role of random numbers in drawing random sample; Methods behind preparation of questionnaire in case of field survey; Data entry after field survey; Tabular representation of data and graphs for data interpretation	SEC-B.1 Acquiring knowledge how to do research – both theoretical and empirical research
Unit Two: Methodological Issues 2	
Theoretical and Empirical Research in Economics; Common sections of an ideal research paper in Economics; Illustrations of empirical research work. Reporting the regression results and interpretation of the results: the role of statistical inference; Illustrations of theoretical research: specification of the model, closing the model, checking stability of the model for meaningful comparative static results; Role of footnotes or end notes in a research paper; Bibliography, reference and citation; Writing the abstract of a research paper; Key words and JEL Classification; Presentation of a research paper through power point. Basic rules to be followed for a good presentation. Role of diagrams, graphs, pictures and charts	SEC- B.2 Acquiring knowledge on how to write a dissertation



MANAGERIAL ECONOMICS (ECOA-SEC-4-B(2) -Th)	
Unit One: Demand, Cost and Profit Analysis	
Demand for durable and non-durable products, demand forecasting techniques; Cost estimation; Cost-volume-profit analysis (break even analysis)- objectives and assumptions; determination of breakeven point, limitations of c-v-p analysis	SEC- B.3. Acquiring knowledge on estimation of cost and cost-volume-profit analysis
Unit Two: Pricing Policies and practices	
Factors governing prices, price discounts and differentials, price forecasting	SEC- B.4. Acquiring knowledge on factor governing price and methods of price forecasting
Unit Three: Capital Budgeting	
What is capital budgeting, need for capital budgeting, different steps in capital budgeting, Capital budgeting appraisal methods – payback method, accounting rate of return method, net present value method, interest rate of return method, benefit cost ratio method. Capital rationing, alternative methods of financing investments	SEC- B.5. Acquiring knowledge on the need, steps and traditional and modern methods of capital budgeting
Unit Four: Cost of capital	
Cost of debt capital, cost of share capital, cost of equity capital, cost of retained earnings	SEC- B.6. Acquiring knowledge on the cost of capital and retained earnings
Unit Five: Inventory Management	
Inventory costs, concepts of average inventory, various inventory models- economic order quantity, optimum number of orders per year, optimum number of days supply per order.	SEC- B.7. Acquiring knowledge on the concepts of inventory management.
SEMESTER V	
PAPER CORE COURSE XI	
INTERNATIONAL ECONOMICS (ECO-A-CC-5-11-Th-Tu)	
Unit One: Absolute and Comparative Advantages of Trade	



Adam Smith's theory of absolute advantage; David Ricardo's theory of comparative advantage; Arbitrage as the basis and direction of trade; fundamental sources of cross-country price differences and arbitrage-concept of comparative advantage; externalities, regulation and perverse comparative advantage; One factor economy, production possibility frontier, relative demand and relative supply, terms of trade, trade in the Ricardian world, determination of intermediate TOT, complete vs incomplete specialization, complete specialization and gains from trade	11.1Acquiring knowledge and obtain clear and comprehensive understanding of the basic concepts of the topics
Unit Two: The Building Blocks of Trade Theory	
The concept of community indifference curve-Justification and properties. The need for trade indifference curves, derivation of trade indifference curves, properties of trade indifference map, Offer curves and its properties. Three important elasticities- the elasticity of offer curves, the elasticity of demand for imports, the elasticity of supply of exports. International equilibrium and offer curves, terms of trade (TOT) and stability, the Marshall-Lerner condition. Gains from Trade (GFT) theorem, illustration of GFT, decomposition of GFT, substitution possibilities and magnitude of GFT. Production structure for neo-classical trade models, role of constant returns to scale, the concept of unit isoquants, duality in the production structure, significance of the envelope condition in trade models.	11.2 Acquiring knowledge and obtain clear and comprehensive understanding of the basic concepts of the topics
Unit Three: Factor Endowment and Trade (Heckscher-Ohlin-Samuelson Model)	
Heckscher-Ohlin (HO)theorem and price vs physical definitions of relative factor abundance. Role of homotheticity of tastes in the context of physical definition. Factor Intensity Reversal in the context of price and physical definitions and invalidity of HO Theorem. Factor intensity ranking, one-to-one correspondence between commodity price ratio & factor price ratio (Stolper-Samuelson theorem), One to one correspondence between endowment ratio and production proportion (Rybczynski theorem). The Factor Price Equalization Theorem. Factor price equalization and complete specialization. Incomplete Specialization, Factor price equalization and Factor Intensity Reversal. Empirical studies- Leontief Paradox	11.3 Learning the basic concepts underlying H-O theorem, Stolper-Samuelson theorem, Rybczynski theorem, Factor price equalization theorem and Leontief Paradox
Unit Four: Applications of Neo-classical Trade Models for developing countries	
Jones (1965) Heckscher-Ohlin type 2x2(two factors-two commodities) full employment model for small open developing economies. Basic structure –significance of the assumption of constant returns to scale- the decomposability property-the capital intensity condition in physical and value terms- Implications of	11.4 Acquiring knowledge on application of Neo-classical Trade models for developing countries



Stolper-Samuelson and Rybczynski theorems-the price and output magnification effects. Jones (1971) 3x2(three factors-two commodities) specific-factor model. Basic structure-significance of the assumption of constant returns to scale-the in-decomposability property. Implications of price magnification effects in specific factor model	
Unit Five: Trade Policy	
Partial Equilibrium Analysis of Tariff - cost-benefit, Quota, Quota- Tariff equivalence & non-equivalence, monopoly effects of quota, subsidy and voluntary export restraint. General Equilibrium Analysis- distinction between large and small economy, welfare effects of a tariff on small country and large country. Tariff ridden offer curve, Tariff war, Optimum tariff for large economy, Metzler's Paradox	11.5 Developing the ability to distinguish between the partial equilibrium analysis of tariff in small country and large country
Unit Six: Open Economy Macroeconomics and Balance of Payments	
Determination of equilibrium income in an open economy. Foreign Trade Multiplier with & without repercussion effects. Balance of Payment accounts in an open economy. Autonomous and accommodating transactions. Fixed & Flexible Exchange Rates: adjustment of demand and supply of Foreign Exchange, Effect of devaluation, The Mundel-Fleming Model (IS LM BP model)	11.6 Acquiring knowledge on the determination of equilibrium income in an open economy, on the adjustment of demand and supply of foreign exchange and on the effects of devaluation
PAPER CORE COURSE XII	
INDIAN ECONOMY (ECO-A-CC-5-12-Th-Tu)	
<b>Unit One: Economic Development since Independence</b>	
Growth and development under different policy regimes (from planning to market-based development) - Objectives, achievements and failures of Planning, Economic crisis during the late 1980s, Economic Reforms –Critical Analysis, Structural changes in the post-reforms period. Regional variation of growth and development.	12.1 Acquiring knowledge on the development policies undertaken in India since 1947
Unit Two: Population and Human Development	
Demographic trends and issues. Education and health: Basic problems and Government measures, Right to Education (RTE) Act 2009	12.2 Acquiring knowledge on the structure, characteristic and growth trends of the population of India
Unit Three: Growth and Distribution	



Trends in GDP and per capita GDP. Growth, poverty and inequality. Youth unemployment (School Transition to Work). Policy perspectives in growth and distribution	12.3 Acquiring knowledge on the growth trends of important macroeconomic parameters in India
Unit Four: Economic Reforms in India	
Banking sector reforms. Reforms in tax policy. Reforms in the external sector. Reforms in Labour market	12.4 Acquiring knowledge on the New Economic Policy 1991
DISCIPLINE SPECIFIC ELECTIVE – A (1)	
APPLIED ECONOMETRICS (ECO-A-DSE-5-A(1)-Th-P)	
Unit One: Steps in Empirical Research	
Use of econometric models in empirical research – some basic concepts. The basic commands in Stata / R	DSE-A.1Acquiring knowledge on the use of econometric models in empirical research
Unit Two: Regression Diagnostics and Specification	
Misspecification, Functional forms, Model selection, Application with Stata / R	DSE-A.2 Acquiring knowledge on regression diagnostics and specification
Unit Three: Application of Regression Analysis	
Cross section analysis – Linear regression model with two regressors (by using survey data like NSSO with Stata / R). Time series analysis (very preliminary level) – Basic concepts of time series. Estimating linear trend (by using NAS with Stata / R). Panel data analysis – basic concepts of fixed effects model; random effects model – (Application with Indian Official Statistics using Stata / R)	DSE-A.3 Acquiring knowledge on the use of statistical tool for cross section analysis, time series analysis and panel data analysis
ECONOMIC HISTORY OF INDIA (1857-1947) (ECO-A-DSE-5-A(1)-Th-Tu)	
Unit One: Impact of British rule on India	
Deindustrialization. Commercialization of agriculture. Economic Drain	DSE-A.4 Acquiring knowledge on the impact of the British rule in pre-independent India



Land policy, Policy of Discriminating Protection, Early Industrial Development and Managing Agency System, Currency and monetary policy, Development of Infrastructure – Railways  DISCIPLINE SPECIFIC ELECTIVE – B (1)  COMPARATIVE ECONOMIC DEVELOPMENT (1850-1950) (ECO-A-DSE-5-B(1)-Th-Tu)  Unit One: Strategies and Policies for Economic Development  Laissez-faire and free trade. Strategy of industrialization in Soviet Union  DSE-B.1 Acquiring knowledge on t different strategies undertaken for development.  Unit Two: Regions of contemporary development  DSE-B.2 Acquiring knowledge abo the development experience of differ regions across the world like Latir America, Africa etc.  FINANCIAL ECONOMICS (ECO-A-DSE-5-B(1)-Th-Tu)  Unit One: Investment Theory and Portfolio Analysis  Deterministic cash-flow streams: Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed- income securities; bond prices and yields; interest rate sensitivity and		I
Land policy, Policy of Discriminating Protection, Early Industrial Development and Managing Agency System, Currency and monetary policy, Development of Infrastructure – Railways  DISCIPLINE SPECIFIC ELECTIVE – B (1)  COMPARATIVE ECONOMIC DEVELOPMENT (1850-1950) (ECO-A-DSE-5-B(1)-Th-Tu)  Unit One: Strategies and Policies for Economic Development  Laissez-faire and free trade. Strategy of industrialization in Soviet Union  DSE-B.1 Acquiring knowledge on t different strategies undertaken for development.  Unit Two: Regions of contemporary development  DSE-B.2 Acquiring knowledge abo the development experience of differ regions across the world like Latir America, Africa etc.  FINANCIAL ECONOMICS (ECO-A-DSE-5-B(1)-Th-Tu)  Unit One: Investment Theory and Portfolio Analysis  Deterministic cash-flow streams: Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed- income securities; bond prices and yields; interest rate sensitivity and	Unit Two: Aspects of Economic Policies in British India	
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Unit One: Strategies and Policies for Economic Development  Laissez-faire and free trade. Strategy of industrialization in Soviet Union  Unit Two: Regions of contemporary development  Success stories of Asia: Japan, South East Asia and China. Crisis and failures of Latin America and Africa  FINANCIAL ECONOMICS (ECO-A-DSE-5-B(1)-Th-Tu)  Unit One: Investment Theory and Portfolio Analysis  DSE-B.2 Acquiring knowledge about the development experience of differ regions across the world like Latin America, Africa etc.  Unit One: Investment Theory and Portfolio Analysis  Deterministic cash-flow streams: Basic theory of interest; discounting and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and	DISCIPLINE SPECIFIC ELECTIVE – B (1)	
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and present value; internal rate of return; evaluation criteria; fixed- income securities; bond prices and yields; interest rate sensitivity and	Unit One: Investment Theory and Portfolio Analysis	
curves; spot rates and forward rates. Single-period random cash  DSE-B.3 Acquiring knowledge or	and present value; internal rate of return; evaluation criteria; fixed-income securities; bond prices and yields; interest rate sensitivity and duration; immunisation; the term structure of interest rates; yield curves; spot rates and forward rates. Single-period random cash flows: Random asset returns; portfolios of assets; portfolio mean and variance; feasible combinations of mean and variance; mean-variance portfolio analysis: the Markowitz model and the two-fund theorem; risk-free assets and the one-fund theorem. CAPM: The capital market line; the capital asset pricing model; the beta of an asset and of a portfolio; security market line; use of the CAPM model in investment	DSE-B.3 Acquiring knowledge on investment theory and optimal portfolio management and analysis
Unit Two: Options & Derivatives	Unit Two: Options & Derivatives	



Introduction to derivatives and options; forward and futures contracts; options; other derivatives; forward and future prices; stock index futures; interest rate futures; the use of futures for hedging; duration-based hedging strategies; option markets; call and put options; factors affecting option prices; put-call parity; option trading strategies: spreads; straddles; strips and straps; strangles; the principle of arbitrage; discrete processes and the binomial tree model; risk-neutral valuation.	DSE-B.4 Acquiring knowledge on financial instruments like options and derivatives
Unit Three: Corporate Finance	
Patterns of corporate financing: common stock; debt; preferences; convertibles; Capital structure and the cost of capital; corporate debt and dividend policy; the Modigliani- Miller theorem.	DSE-B.5 Acquiring knowledge on financial management in the corporate sector
PART II	
PAPER III A	
MICROECONOMICS	
Unit One: Consumer Theory	
Assumptions on preference ordering, indifference curve, marginal rate of substitution and convexity of IC, budget constraint, consumers' equilibrium – interior and corner, Derivation of Demand Curves from ICs, composite good convention. Application: Cash subsidy versus subsidy in kind; Income and price consumption curves Price effect – substitution effect (Hicks and Slutsky), inferior goods and Giffen goods, income effect, ordinary and compensated demand curves; Intertemporal choice (saving and borrowing); Revealed preference; Choice under uncertainty- utility function and expected utility, risk aversion and risk preference (concepts only)	3A.1 Acquiring sound knowledge of consumer theory
Unit Two: Production and Costs	
Technology, Production Functions and Isoquants, short run and long run, production with one and two variable inputs, total average and marginal products, law of diminishing return, marginal rate of technical substitution, elasticity of substitution, economics of scale; Types of production functions- Cobb-Douglas, fixed-coefficient and CES functions; Cost structure-implicit cost, explicit cost, accounting cost, sunk cost, economic cost, fixed cost, variable cost, total, average and marginal cost. Determinants of Short run cost, Cost Curves, cost	3A.2 Acquiring knowledge of production and cost



minimization and expansion path, Short run versus long run cost	
curves, economies of scope.	
Unit Three: Market Structure	
Organization, Firms and Profit Maximization; Marginal Revenue, Marginal Cost and Profit Maximization; Perfect competition-short run competitive equilibrium of the firm, short run supply curve of firm and industry, Output choice and competitive equilibrium in long run, Economic rent and profit, long-run industry supply — constant, increasing and decreasing cost; Efficiency of competitive equilibrium, Government intervention and dead weight loss, Application — Minimum prices and price supports; Monopoly and barriers to entry — output determination and price rule, measure and sources of monopoly power, social costs of monopoly power — deadweight loss; Pricing with market power — first, second and third degree price discrimination; Monopolistic competition — short run and long run equilibrium, excess Capacity; Oligopoly — Oligopoly equilibrium as Nash equilibrium, Cournot and Stackelberg Model, Competition versus collusion — the Prisoners' Dilemma.	3A.3 Understanding different forms of commodity markets
Unit Four: Input Market	
Basic concepts-derived demand, productivity of an input, marginal product of an input, marginal revenue product; Marginal productivity theory of distribution; Labor market-supply of labor, competitive labor markets, monopsony, collective bargaining; Land markets and rent.	3A.4 Understanding the input market
Unit Five: Other Issues Related to Market	
General Equilibrium and Economic Efficiency – Exchange, production and welfare; Reasons for Market Failure; Markets with asymmetric information- adverse selection, moral hazards, agency problems (concepts only).	3A.5 Understanding the reasons for market failure.
PAPER III B	
MACROECONOMICS	
Unit One: The Economy in the Long Run	
The classical analysis of the real sector-determination of employment, income and interest rate; Job Loss, Job finding and Natural Rate of Unemployment; Money and Inflation – quantity theory of money,	3B.1 Acquiring knowledge long run models of macroeconomics.



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seigniorage and inflation tax, inflation and interest rates, nominal interest rate and demand for money.	
Unit Two: The Economy in the short run	
Simple Keynesian analysis of aggregate demand without and with the government sector, multiplier; IS-LM, fiscal and monetary policy; IS-LM and Aggregate Demand; Aggregate supply – Sticky Wage Model and Imperfect Information Model, Aggregate Supply and Phillips curve, Inflation and Unemployment trade off without and with rational expectations; Economy wide equilibrium with fiscal and monetary policy, demand and supply shocks, wage price flexibility and rigidity (only definition), Keynesian aggregate supply and Classical Aggregate Supply.	3B.2 Acquiring knowledge on short run models of macroeconomics.
Unit Three: Foreign Trade and Exchange Rate	
Economic Openness with an emphasis on Indian economy, balance of payments, BOP and the Central Bank, Financing Current Account Deficit; Exchange Rate Concepts, Determination of Exchange Rate – fixed and flexible, Importance of Foreign Currency Reserves with reference to India, Domestic Adjustment, BOP Crisis and Speculative Attack, Internal and External Balance under Fixed Rate, Advantages of Flexible exchange and Fixed Rates; Foreign exchange market reform in India, relation of Devaluation with purchasing power parity and inflation, purchasing power parity principle; IS-LM model without capital flows, Open economy with capital flows – the Mundell-Fleming Model.	3B.3 Developing skills to devise appropriate policies at the macroeconomic level.
Unit Four: Theories of Consumption and Investment	
Consumption – Keynes and consumption function, inter-temporal choice, life cycle and permanent income hypothesis; Investment—business fixed investment, neo-classical approach, Tobin's q, Residential investment and accelerator model of inventories.	3B.4 Acquiring knowledge on human economic behavior at the macro level
Unit Five: Demand for Money	
Demand for money: Portfolio theory of money demand, Baumol-Tobin analysis of cash management.	3B.5 Acquiring knowledge on money demand behaviour
Unit Six: Economic Growth	



Solow model, Golden Rule of capital, impact of changes in saving propensity, population growth and technological progress. Growth accounting and Solow residual; Endogenous Growth Theory (introduction).	3B.6 Critically assessing the impact of various policies undertaken in the economy and worldwide.
PAPER IV A	
DEVELOPMENT THEORY	
Unit One: Concepts & Nature of Development	
Nature, Questions & Values of Development, Development vs. economic growth, Capabilities approach, Objectives of development; Purchasing power parity & Per capita income as an index of development, HDI; Definition & characteristics of a developing economy.	4A.1 Acquiring knowledge on applying economic concepts to real time development strategies
Unit Two: Process of Development – Theoretical perspective	
Theories of transition – Clark and Fisher on change in sectoral share, Rostow's stages of growth, Kuznets's characteristics of growth, Industrialisation, Kaldor's growth laws; Neo-classical approach of market & growth	4A.2 Understanding economic transitions
Unit Three: Factors in Economic Development	
Land: Ownership and tenancy system – fixed rent contract & share cropping, role of agriculture, barriers to agricultural development & land reforms; Labour – Population & labor force growth, casual & long term labor, permanent labor market; Capital: Role of capital accumulation in development. Capital-output ratio, role of technology & technological progress, learning, human capital.	4A.3 Understanding and analysing resource allocation
Unit Four: Population & Development	
Concepts of population: definitions of fertility, mortality, birth rates, death rates, fertility rate, life expectancy, infant mortality rate, youth dependency ratio; Theory of demographic transition	4A.4 Acquiring knowledge on demographic transitions
Unit Five: Development Strategies	
Complementarity & Coordination; Nurkse's Poverty Trap & Big Push theory of Rosenstein-Rodan; Linkages – backward and forward; linkages, policy & big push; Choice of technology & choice of scale, criteria for investment; Gains from Trade – static, dynamic and vent for surplus, tariffs versus subsidies. Prebisch doctrine, Prebisch-Singer thesis & Terms of Trade	4A.5 Understanding, analysing and interpreting socio-economic policies



Unit Six: Development in a Labour Surplus Economy	
Economic dualism; Lewis' model, Disguised unemployment; Informal Sector; Harris-Todaro model	4A.6 Acquiring knowledge on economic interpretation of dualism
Unit Seven: Development, Inequality & Poverty	
Meaning & measures of inequality, Lorenz curve, range, coefficient of variation, Gini coefficient, Kuznet's Inverted U hypothesis; Poverty, relative & absolute deprivation with respect to income, Poverty line, Poverty measures – Head count ratio, Poverty gap ratio, Income gap ratio, Human Poverty Index; Social dimensions of poverty – rural poverty, women, ethnic minorities, indigenous populations; Tackling Poverty – The World Bank Approach	4A.7 Understanding, analysing and interpreting socio-economic policies and concepts regarding poverty, economic inequality, empowerment and justice, etc.
Unit Eight: Environment & Development	
Development & Environment: overview; Sustainable development & environment accounting, population & resources, poverty, rural development, urban development, global environment – rain forest destruction & greenhouse gases; Environmental regulation policies.	4A.8 Acquiring knowledge on sustainable development
PAPER IV B	
INDIAN ECONOMY SINCE INDEPENDENCE	
Unit One: Indian Economy at the time of independence	
Features of Indian Economy around 1947-1950 & characteristics of economic underdevelopment of India (with reference to colonial rule of India)	4B.1 Acquiring knowledge on the impact of colonial economics on modern India
Unit Two: Planning	
Background and Structure of Indian Planning; Structural Constraints and India's development strategy: Choice of industrialization – public vs. private sector, capital goods vs. consumer goods – Mahalanobis Plan Model, import substitution vs. export promotion strategy; Agriculture-industry relationship – demand side & supply side linkages, agriculture industry terms of trade – food crisis of the 1960s & imperatives for agricultural growth, genesis of green revolution – fourth plan; Poverty Eradication, foreign aid and self-reliance – Fifth Five Year Plan; Regional inequality in India – causes; policies for balanced regional Development; Planning deficiencies and its	4B.2 Analysing the intersectoral linkages of the different sectors of the economy and the thrust areas of Indian planning and possible outcomes of the Planning exercise.



abandonment– 7 <sup>th</sup> five-year plan and Indian economic crisis; New Economic Policy – liberalisation, market and state	
Unit Three: Land & Agriculture	
Land & tenancy system, sharecropping, Different dimensions of land reform, productivity debate, Marketable Surplus; Green Revolution – features and impacts, Performance of Indian agriculture; Agricultural Policies and Pricing, Agricultural Price commission, support price vs. procurement price, Public investment in Agriculture, agricultural subsidies and tax.	4B.3 Understanding, analysing and interpreting the effects of economic policies on the Indian economy since Independence
Unit Four: Industrial Development	
Structure and composition of Industry, issues of concentration, large vs. small industry, industrial location. Small scale reservation policy. Trends and patterns of industrial growth; Foreign trade regime, protection and foreign competition, productivity, import substitution vs. Export competitiveness, effect on export competitiveness; Industrial Policies – industrial licensing system	4B.4 Critically analysing the development strategies and economic policies of the Indian Government since Independence
Unit Five: Employment, Wages and Inflation	
Trends and pattern of employment and wages, informalisation and tertiarisation of employment, problems of unemployment and underemployment; Government policies on employment and wages, employment guarantee scheme, minimum wage; Movement of prices in India – trends, patterns, causes, consequences and policies adopted	4B.5 Critically analysing the development strategies and economic policies on important macro parameters
PART III	
PAPER VA	
INTERNATIONAL ECONOMICS	
Unit One: Basic Models of Trade	
Ricardian Model: Comparative advantage; One factor economy: production possibility frontier, relative demand and relative supply and autarkic terms of trade; Trade in Ricardian world: determination of international terms of trade, complete specialization, gains from trade.	5A.1 Understanding basic models of trade
Unit Two: Resources, Comparative Advantage and Income Distribution	



Model of two factor economy: Assumptions, Factor prices and commodity prices (Stolper-Samuelson effect)-correspondence, Resources & output, Rybzynski effect; Effects of International Trade between two factor economies, Relative prices and the pattern of Trade, Trade and distribution of Income, Factor Price Equalization; Empirical studies – Leontief Paradox.	5A.2 Acquiring knowledge of Resources, Comparative Advantage, and Income Distribution		
Unit Three: The Standard Trade Model			
Production Possibilities and relative supply, relative prices and demand, welfare effects of changes in terms of trade, determining relative prices; Economic growth: shift of RS curve, growth and production possibility frontier, RS and terms of trade, International effects of growth, International transfers of income: shifting RD curve, Transfer problem, effects of transfer on terms of trade, Tariffs and export subsidies; Offer curves: Derivation, International Equilibrium.	5A.3 Acquiring knowledge on the standard trade model and trade policy		
Unit Four: Trade Policy			
Partial equilibrium analysis: Tariff- cost and benefit, effective rate of protection and intermediate goods, quota, tariff- quota equivalence and nonequivalence, export subsidy, voluntary; Export restraint; General Equilibrium Analysis: Distinction between small and large open economy, welfare effects of tariff in a small country, optimum tariff for large open economy, Metzler's paradox; Tariff & Import Quotas in presence of monopoly.	5A.4 Obtaining sound knowledge of accounting, income determination and exchange rates		
Unit Five: Accounting, Income Determination and Exchange Rates			
Balance of payment accounts; national income accounting in an open economy; monetary account; Determination of national Income, multiplier analysis, the transfer problem, introduction of foreign country and repercussion effect; Fixed and Flexible Exchange rates: Adjustments, Demand & Supply of foreign exchange, Effects of exchange rate changes on domestic prices and terms of trade, Marshall-Lerner condition, J-curve effect	5A.5 Obtaining knowledge on BoP, accounting, exchange rates		
PAPER VB			
PUBLIC FINANCE			
Unit One: Introduction to public economics			
The nature, scope and significance of public economics	5B.1 Acquiring basic knowledge on public economics		



Unit Two: Forms and Functions of Government			
Different forms of government – unitary and federal. Tiers of government in the federal form- Central, State, Local (Introductory discussion with examples); Functions of Government – Economic functions –allocation, distribution and stabilization; Regulatory functions of the Government and its economic significance	5B.2 Acquiring clear knowledge & idea about the functioning of the government and the public sector.		
Unit Three: Federal Finance			
Federal Finance: Different layers of the government, Inter governmental transfer—horizontal vs. vertical equity; Grants—merits and demerits of various types of grants—unconditional vs. conditional grants, tied grants, matching grants.	5B.3 Acquiring knowledge on resource allocation in a federal structure		
Unit Four: Public Goods and Public Sector			
Concept of public goods—characteristics of public goods, national vs. local public goods, determination of provision of public good; Externality, concept of social versus private costs and benefits, merit goods, club goods; Provision versus production of public goods. Market failure and public provision. Pricing of public goods—vertical summation	5B.4 Acquiring knowledge on the different economic aspects of the operations of the public sector		
Unit Five: Government Budget and Policy			
Government budget and its structure – Receipts and expenditure – concepts of current and capital account, balanced, surplus, and deficit budgets, concept of budget deficit vs. fiscal deficit, functional classification of budget. Concept of Revenue Deficit; Budget, government policy and its impact. Budget multipliers	5B.5. Critically examining the impact of various policies by the government		
Unit Six: Revenue Resources			
Concept of tax, types of tax – direct tax and indirect tax, canons of taxation, subsidy, transfer policy; Principles of taxation –Ability to Pay principle (brief discussion), Benefit Approach (Actual Examples); Tax Design – introduction – truth seeking mechanism.	5B.6 Developing the skills to apply the ideas of microeconomics and macroeconomics on real life situations and hence devise appropriate policies		
Unit Seven: Tax Structure			
Effects of income tax on work effort, saving and risk bearing (just brief ideas); Excess burden of indirect taxes; VAT, Goods and Services Tax (pros and cons); Non-tax revenue resources-earnings from public undertakings, interest on loans.	5B.7 Acquiring knowledge on government revenue		



Unit Eight: Distribution and Stabilization  Instruments for stabilization; Public Debt—internal and external; Public Finance and Public Choice: The Role of State.  PAPER VI A  COMPARATIVE DEVELOPMENT EXPERIENCE  Unit One: International comparisons of development  Differences in initial conditions of development of less developed countries and present day developed countries; Nature of development gap prevailing at present between developed and less-developed countries outlies of the Third World; Industrial revolution in Great Britain—Causes—Why Great Britain became the pioneet?—Characteristics—Effects  Unit Three: Industrialization Experiences in Early Part of 20th Century  The Great Debate in Soviet Union on the assignment of priority on development of heavy industry in the process of planned economic development; The Great Depression of the 1930's and recovery—Experiences of USA and Great Britain.  Unit Four: Post Second World War Development Senario  Global Change, Welfare state and mixed economy; Post War global institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development; Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia; Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance debate.  Unit Five: Development and Underdevelopment as Historical Process  Dependency Approach, Unequal exchange		T		
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Different types of social organization, feudalism, pre-capitalist societies other than feudalism, capitalism in the West, development of the Third World; Industrial revolution in Great Britain – Causes – Why Great Britain became the pioneer? – Characteristics – Effects  Unit Three: Industrialization Experiences in Early Part of 20th Century  The Great Debate in Soviet Union on the assignment of priority on development of heavy industry in the process of planned economic development; The Great Depression of the 1930's and recovery – Experiences of USA and Great Britain.  Unit Four: Post Second World War Development Scenario  Global Change, Welfare state and mixed economy; Post War global institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development; Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia; Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance debate.  Unit Five: Development and Underdevelopment as Historical Process	countries and present day developed countries; Nature of development gap prevailing at present between developed and less-developed			
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Unit Three: Industrialization Experiences in Early Part of 20th Century  The Great Debate in Soviet Union on the assignment of priority on development of heavy industry in the process of planned economic development; The Great Depression of the 1930's and recovery – Experiences of USA and Great Britain.  Unit Four: Post Second World War Development Scenario  Global Change, Welfare state and mixed economy; Post War global institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development; Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia; Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance debate.  Unit Five: Development and Underdevelopment as Historical Process  6A 5 Learning economic history	societies other than feudalism, capitalism in the West, development of the Third World; Industrial revolution in Great Britain – Causes – Why			
development; The Great Depression of the 1930's and recovery – Experiences of USA and Great Britain.  Unit Four: Post Second World War Development Scenario  Global Change, Welfare state and mixed economy; Post War global institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development; Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia; Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance debate.  Unit Five: Development and Underdevelopment as Historical Process  6A. 5 Learning economic history  6A. 5 Learning economic history				
Global Change, Welfare state and mixed economy; Post War global institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development; Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia; Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance debate.  Unit Five: Development and Underdevelopment as Historical Process  6A 5 Learning economic history	development of heavy industry in the process of planned economic development; The Great Depression of the 1930's and recovery –	6A.3 Learning economic history		
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Process  6A 5 Learning economic history	institutions: International Monetary Fund, World Bank, United Nations Conference on Trade and Development; Trade and Strategies of Development: Infant industry, Import substitution versus export promotion in less developed countries. Illustrations from South Asia, Latin America and East Asia; Foreign Finance, Investment and Development: Private foreign direct investment and Multinational Corporations, private portfolio investment, development assistance	assess foreign repercussions on domestic		
Dependency Approach, Unequal exchange 6A.5 Learning economic history	Unit Five: Development and Underdevelopment as Historical			
	Dependency Approach, Unequal exchange	6A.5 Learning economic history		



Unit Six: Evolution of New International Economic Order	
Neo liberalism, Washington consensus, North-South Divide, Recasting of IMF and World Bank; General Agreements on Tariff and Trade (GATT) and the Dunkel Draft controversy-World Trade Organization (WTO); Economic Integration and Regional Trading Blocks; Global Polarization	6A.6 Analyzing the working of the various international institutions and global players
Unit Seven: Development Policies and role of the State	
Nature of Development planning, Rationale for development planning. Washington Consensus, New Consensus and the State	6A.7 Learning development planning
<b>Unit Eight: Some Recent Development Experiences</b>	
i) China, (ii) Africa (iii) Argentina	6A.8 Comparing the development scenario of countries and underlying reasons for the disparity among nations
PAPER VI B	
CONTEMPORARY ECONOMIC ISSUES: INDIA & WEST BENGAL	
Unit One: Economic Reform in India Since 1991	
Background of Indian Economic Reforms – New Economic Policy. Redefining India's development strategy. Changing Role of State and Market; Industrial Policy, Disinvestment policy and Privatization; Financial sector reforms including banking reform. Monetary Policy of RBI; Fiscal Policy Reform – tax reform, debt management, FRBM act and subsidies; External sector reforms: Foreign Exchange market, balance of payments, reform, convertibility, export-import policy, foreign direct investment.	6B.1 Acquiring knowledge on New Economic Policy of India
Unit Two: Agriculture, Poverty and Social Security	
Post-reform Agricultural Performance and its Crisis; Poverty and exclusion, NREGA, social security for unorganized workers and forest policy.	6B.2 Acquiring knowledge on various development policies in India
<b>Unit Three: Post-reform performance of Indian Economy</b>	
Appraisal of Indian Economic Reform. India's Growth Experience	6B.3 Critically analyzing the NEP



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Unit Four: Indian economy: Some Current and Future Issues				
Inclusive development; Growth of the Service Sector; Food security, Food Procurement and Public Distribution System; Migration and Urbanization; Land acquisition, SEZ and Industrialization; Demographic dividend.	6B.4 Acquiring knowhow as to whether sustainable development tenets are operational at the state and national policy design, implementation and operation levels.			
Unit Five: West Bengal Economy: An Overview				
West Bengal Economy Structure and Growth – based on state domestic product (SDP) data and employment data from National Sample Survey and Census of India; West Bengal Economy in relation to India and major states in recent decades: in terms of indicators on – per capita SDP, per capita consumption (rural and urban), income growth, human development.	economic concepts actually operate through development policies			
Unit Six: Growth and Development of West Bengal Economy				
Land Reforms, agricultural growth and related current problems-growth of non-farm rural sector; Industrial development – problems and prospects; Tertiary sector growth – Informalisation in manufacturing and tertiary sectors; Poverty alleviation, Employment generation, self-help-group and social security: Problems and policies	6B.6 Acquiring knowledge about the West Bengal economy			
PAPER VII A				
STATISTICS AND BASIC ECONOMETRICS				
Unit One: Joint Probability Distribution				
Idea of Independence, Marginal & Conditional Distribution. Expectation of the product of two variates.	7A.1 Acquiring knowledge on statistical theory			
Unit Two: Sampling Theory				
Population and Sample, Parameter and Statistic, SRSWR & SRSWOR, Random sampling Numbers; Sampling Distribution, Standard Error.	7A.2 Acquiring knowledge sampling theory			
Unit Three: Sampling Distribution				
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Normal Population, Expectation & Standard Error of Sample Mean for SRSWR & SRSWOR; Chi-Square distribution, Student t distribution, F-distribution, degrees of freedom.	7A.3 Acquiring knowledge on statistical theory
Unit Four: Classical Statistical Inference	
Estimator properties: Unbiasedness, Minimum Variance, Consistency & Sufficiency; Point Estimation – MLE & properties; MLE estimation of the parameters of Binomial, Poisson & Normal Distributions. Confidence Intervals, Testing of Hypothesis, p-Values, Type-I and Type –II Errors; Simple applications of tests for the Mean and Variance of a Univariate Normal Population.	7A. 4 Acquiring knowledge on statistical inference and how to statistically establish and test existing theoretical models
Unit Five: Elementary Econometrics	
Classical Linear Regression Model: Specification, assumptions, Linearity in variables & parameters, Estimation of the Error Variance; Gauss Markov Theorem, Goodness of fit: R square; Inference in the Linear Regression Model- Confidence interval for parameters & the Testing of Hypotheses Prediction with Simple Regression model; Heteroscadasticity& Autocorrelation	7A.5 Acquiring knowledge econometrics and on how to generate quantitative frameworks for theoretical economic models
Unit Six: Time Series	
Components: Secular Trend (Free hand curve fitting, moving averages, fitting mathematical curves), Seasonal fluctuation (monthly averages, ratio to moving averages, ratio to trend)	7A.6 Acquiring knowledge on time series
PAPER VII B	
APPLIED ECONOMICS (MATHEMATICAL ECONOMICS)	
Unit One: Theory of the Consumer	
Utility maximization, Lagrangian multiplier, Indirect Utility function, Roy's Identity, Derivation of Slutsky's equation, Slutsky's Equation in elasticity form, Compensated demand curve, Different forms of Utility Function—Separable, quasi-linear, homogeneous & Homothetic Labour-leisure choice	7B.1 Acquiring knowledge on how to mathematically establish basic economic principles and laws
Unit Two: Theory of the Firm	
Output maximization, Cost minimization, Homogeneous & homothetic production functions, Elasticity of substitution, CES production function, Relationship between AC & MC; Factor demand curves, output elasticity, Analysis of firms in competitive equilibrium & monopoly, imposition of taxes; Analysis of factor demands in the	7B.2 Acquiring knowledge on how to empirically interpret microeconomics and macroeconomics principles



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long run; Fixed coefficient production functions, Leontief Input-Output system.			
<b>Unit Three: Games &amp; Decisions</b>			
2-person matrix games, solving matrix games with mixed strategies; Sequential Games & Decisions	7B.3 Acquiring knowledge on game theory		
Unit Four: Inter-temporal Choice Theory			
n-period utility maximization, Time preference, Stocks & flows	7B.4 Acquiring knowledge on inter- temporal choice theory		
Unit Five: Behaviour under Uncertainty			
Uncertainty and Probability, State preference approach for preferences; Expected Utility Hypothesis, Risk aversion & its measures.	7B.5 Acquiring knowledge on uncertainty theory		
Unit Six: Comparative Statics			
Generalisation to n variables: First and Second order conditions; Profit maximisation: n factors and Utility Maximisation; National Income Model, IS-LM Model; Simple Trade Models	7B.6 Acquiring knowledge on how to mathematically establish basic economic principles and laws		
Unit Seven: Comparative Statics			
Cobweb Model; Multiplier-Accelerator Interaction Model; Linear Systems via Eigen values; Solution of linear systems by substitution; Phase diagrams of linear systems; Solow model.	7B.7 Acquiring knowledge on how to empirically interpret macroeconomics principles		
PAPER VIII A			
INDIAN ECONOMIC HISTORY			
Unit One: Economic condition in India on the eve of British rule			
Economic condition in India on the eve of British rule	8A.1 Acquiring knowledge on the economic conditions of India at the time of British rule		
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Unit Two: Aspects of Economic Policies under in British India			
Land policy; Policy of Discriminating Protection; Early Industrial Development and Managing Agency System; Currency and monetary policy; Infrastructure and Transport	8A.2 Understating and analyzing the effect of economic policy on the core sectors of agriculture, industry and trade in British India		
Unit Three: Impact of British rule on India			
De-industrialization, Commercialization of agriculture; Economic Drain	8A.3. Acquiring knowledge on the impact of colonialism on the economy		
Unit Four: Early Economic planning initiatives during British rule			
Early Economic planning initiatives during British rule	8A.4 Critically analyzing the economic planning initiates during the British rule		
PAPER VIII B			
TERM PAPER			
<b>Term Paper:</b> The topic of the term paper will be from the subjects covered in the undergraduate economics honours syllabus	8B.1 Learning to carry out research and write dissertation papers by applying theoretical knowledge and tools to real life situations.		

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