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**GOVERNMENT OF ARUNACHAL PRADESH  
DEPARTMENT OF PLANNING  
ITANAGAR.**

**SYLLABUS FOR DIRECT RECRUITMENT OF RESEARCH  
OFFICER  
ECONOMICS – PAPER –I (Pg. No. 2-9) & II (Pg. No. 10-21)**

## PAPER - I

### MICRO ECONOMIC THEORY-I

#### UNIT I: Consumer's Choice

Preference ordering and utility function-Utility maximization and Marshallian demand function-Indirect utility function and cost function-Hicksian demand function-Properties of demand function: Engel aggregation, Cournot aggregation, homogeneity-Linear expenditure system –An overview of estimation of demand functions.

#### UNIT II: Theory of Production

Production function>Returns to scale and returns to a factor –Elasticity of factor substitution – Types of production function: Homogeneous, homothetic production function, Cobb- Douglas, CES and VES production functions and their properties- Derivation of Cobb- Douglas and Leontief production functions from CES production function.

#### UNIT III: Theory of Market

Critique of perfect competition as a market form-Actual market forms: Duopoly, oligopoly and monopolistic competition-Cournot and Stackelberg's model of duopoly- Collusive oligopoly: Cartel.

#### UNIT IV: Alternative Theories of the Firm

The traditional theory of firm and its critical evaluation – Baumol's sales revenue maximization model –Williamson's model of managerial discretion-Managerial firm vs. entrepreneurial firm-Marris's model of managerial enterprise-Limit pricing theory.

#### UNIT V: Welfare Economics

Pareto Optimality, Pareto Optimality conditions: Consumption, production and exchange, critical evaluation of Pareto Optimality – Compensation tests: Kaldor, Hicks and Scitovsky and Little's criterion-Social welfare function – Arrow's Impossibility Theorem-Sen's solution to General Impossibility theorem.



## **MACRO ECONOMIC THEORY**

### **UNIT I: Classical and Keynesian Economics**

Classical theory of income, employment, wage rate and price level-Concept of macro equilibrium in classical model-Classical dichotomy-Causes of unemployment-Evaluation of classical model.

Keynesian concept of macro equilibrium, determination of income, output and employment-Consumption function-Multiplier in an open economy.

### **UNIT II: Neo-Classical and Keynesian Synthesis**

Classical and Keynesian theories of interest-IS-LM model-Relative effectiveness of monetary and fiscal policies-Extension of IS-LM model to labour market, flexible price and open economy (Mundell-Fleming model).

### **UNIT III: Theories of Consumption**

Extension of Keynesian consumption function to long run –Relative Income Hypothesis (Duesenberry)-Life cycle Hypothesis (Ando and Modigliani)-Permanent Income Hypothesis (Friedman)

### **UNIT IV: Theories of Investment**

Basic neo-classical theory of investment-Acceleration principle, its derivation from the profit maximizing behavior, flexible accelerator-Investment demand: Present value criterion for investment, payback period and internal rate of return, Marginal Efficiency of Investment (MEI).

### **UNIT V: Theories of Business Cycle**

Schumpeterian and Keynesian Theories - Multiplier-accelerator interaction (Samuelson)- Kaldor's theory-Monetary & fiscal policy for economic stabilization.

## **PUBLIC ECONOMICS**

### **UNIT I: Rationale for Government Intervention**

Role of government in economic activity: allocation, distribution and stabilization functions-Provision of public goods and merit goods-Externalities, market imperfection and government intervention.

## **UNIT II: Public expenditure**

Wagner's law of increasing state activities- Voluntary exchange principle and Lindhal's model – Samuelson's model-Musgrave's optimum budget model-Paradox of voting in public expenditure-Effects of public expenditure.

## **UNIT III: Taxation**

Principles of taxation: Benefit and ability to pay approaches and neutrality in taxation- Taxable capacity, absolute and relative taxable capacity, factors determining taxable capacity-Deadweight loss of tax and problems of its estimation, elasticity and buoyancy of taxation (concepts).

## **UNIT IV: Public Budget and Public Debt**

Classification of public budget: Incremental budget & zero-base budget-Concepts of deficits in budget-Public debt: Sources, effects and burden-Ricardian equivalence- Domar's approach to burden of debt, management of public debt.

## **UNIT V: Fiscal Policy & Fiscal Federalism**

Compensatory fiscal policy, balanced budget multiplier-Principles of division of financial resources in a federation-Horizontal and vertical imbalance- Finance Commission and Planning Commission in resources transfer from centre to the states in India-Fiscal reforms in India.

# **MATHEMATICS FOR ECONOMICS**

## **UNIT I: Co-ordinate Geometry and Algebra**

Equation of the straight line: Slope, intercept-Derivation of a straight line given (a) intercept and slope and (b) intercepts- Angle between two lines – The condition of lines for being parallel.

Circle: Derivation of the equation of a circle given a point & radius – Derivation of the equation of a parabola-Definition of hyperbola and ellipse-Binomial Expansion for a positive, negative or fractional exponent- Exponential and logarithmic series.

## **UNIT II: Matrix Algebra**

Scalar and vector-Length of a vector-Addition, subtraction and scalar products of vectors-Angle between two vectors-Schwarz inequality-Vector space and normed