

poverty alleviation and regional imbalances.

Agriculture : Land reforms and New Green Revolution – Role of technology; regional disparities in Indian agriculture; Pricing Policy; Food subsidy and Public distribution system.

Industry : Industrial growth and Productivity – New industrial policy; Privatisation, Disinvestment – FDI and role of MNCs. SMEs and industrial development.

Public Finance : Composition and growth of public expenditure and debt; Fiscal reforms and rationalization of subsidies; Centre – State financial relations.

WTO and its impact on Indian economy; Energy and Environment: Energy Security; Environmental Policy of Government of India, Rationale of Social Forestry.

8. **QUANTITATIVE METHODS :**

a. **Statistical Methods**

Measures of Central tendency, dispersion, skewness and kurtosis

Fundamentals of probability – Binomial, Poisson and Normal distributions. Simple correlation and regression analysis

Statistical inferences – Applications, sampling distributions (t, Chi-square and F tests),

Sampling of attributes, testing of hypothesis Index numbers and time series analysis

Sampling and census methods, types of sampling and errors.

b. **Econometric Methods :**

i) Single Equation Linear Model :

Assumption and properties of OLS

Multiple Regression Model – Estimation and Interpretation

Multi-collinearity, auto-correlation and heteroscedasticity – Causes, detection, consequences and remedy.

Dummy variables, distributed lags – need, limitations and interpretation

Applications in economics.

ii) Simultaneous Equation Models :

Structural and reduced forms, Endogenous and exogenous variables, Identification problems and conditions.

Single equation methods of estimations – two stage least squares, indirect least squares, and least variance ratio.

c. **Time Series Models**

Auto-regressive (AR), moving average (MA) and mixed processes (ARMA, ARIMA)

Concepts of unit root, integration and cointegration, random walks.

d. **Mathematical Methods**

i) Principles of optimization : maxima and minima of functions of a single variable.

ii) Basic concepts of Game Theory – Two-person, Zero-sum Game, Pure and Mixed strategy, Saddle point solution, Linear programming and input output analysis.

12. CIVICS

Common Syllabus: Public Policy and Research Methodology

I. (A) Public Policy

a) Nature, Scope and Importance of Public Policy, Public Policy as a Policy Science.

b) Theories / Models : Systems, Structural – Functional Incremental, Elite, Group, Rational Comprehensive.

c) Public Policy Making: Legislature, Executive Judiciary, Bureaucracy, Political Parties, Pressure Groups, NGOs

d) Policy Evaluation & Impact: Constraints.

I. (B) Research Methodology

a) Methods of Enquiry: Traditional and Scientific Methods, Objectivity in Social Science Research

b) Types of Research Design

c) Hypothesis

- d) Methods of Data Collection: Library, Interview, Observation
- e) Data Processing, Report Writing.

II. Public Administration

- a) Definition, Meaning, Nature, Scope and Importance of Public Administration
- b) Evolution of Public Administration Theories: Classical, Human Relations and System Approach
- c) Union Government: President, Prime Minister and Council of Ministers, Parliament, Judiciary
- d) State Government: Governor, Chief Minister and Council of Ministers, State Legislative, Judiciary (High Court and Subordinate Court)
- e) Local Government: Panchayati Raj Institutions, Gram Panchayat, Mandal Parishad, Zilla Parishad
- f) Impact of 73rd and 74th Constitutional Amendments on Panchayati Raj Institutions

III. Political Science

- a) Definition, Meaning, Nature, Scope and Importance of Political Science
- b) State : Essential Elements : Theories of Origin of State
- c) Sphere of State Activity : Laissez Fair, Welfare, Fascist, Anarchist, Socialist, Marxist
- d) Basic Concepts : Law, Liberty, Equality, Justice and Rights
- e) Forms of Government : Unitary, Federal, Presidential and Parliamentary
- f) Theory of Separation of Powers
- g) India's Foreign Policy – Determinants and Features, Non-Alignment and U.N.O.

13. HISTORY

Ancient India :

1. Pre and protohistoric background – Stone ages and Chalcolithic cultures.
2. Harappan Civilization – Extent, major cities, characteristic features, social and economic conditions, script, religious practices, causes for the decline.
3. Iron Age – Aryan migration – Second urbanization.
4. Vedic Age : Importance literature, Political, Social and economic conditions in the early and later vedic age.
5. India in the 6th century B.C. : Political, Social and economic conditions, Rise and spread of Jainism and Buddhism.
6. Mauryan Age : Political history of the Mauryans, Ashoka, Mauryan Administration, social and economic conditions, decline of the Mauryan empire.
7. The Satavahanas : Political history, administration, contribution to the culture.
8. Gupta Period : Political history, administration, social and economic conditions, growth of culture, decline of the empire.
9. India in the 7th century A.D. : Harsha Vardhana, Pallavas and Chalukyas, Rashtrakutas their political history and their contribution to culture.

Medieval India:

10. India between 650 and 1200 A.D. – Political, social and economic conditions, Chola administration and culture.