

2. Uttaramacaritam (Act 1st Verses 30 to 50)
3. Mrchakatikam (Act 1 Verses 15 to 30)

SOCIOLOGY

PAPER-I

PRINCIPLES OF SOCIOLOGY

Sociology – Meaning, nature and scope, emergence of sociology, its relationship with other social sciences, importance of sociology.

Study of Social Phenomena – Social research, the scientific method, objectivity and subjectivity in social sciences.

Basic Concepts – Association, institution, community, social groups, culture.

Social Structure – Status, role, norms and values.

The Individual and Society - Individual and society, socialization; culture and personality; leadership, social control.

Institutions – Family, marriage and kinship-forms, functions and their changing dimension, education, religion, power and authority.

Social Stratification – Meaning, forms and functions; caste, class and their changing dimensions; future of caste.

Types of Societies – Rural, urban and tribal communities-distinctive characteristic, rural-urban continuum, problems of tribal people, tribal development.

The Pioneers in Sociology – Auguste Comte- positivism; Karl Marx- materialist conception of history and class struggle; Max Weber- authority and power, the Protestant ethic and spirit of capitalism ; and Durkheim- social solidarity, division of labour and its pathological forms.

Social Change – Meaning, factors and theories of social change; processes of social change – sanskritization, westernization, and modernization; globalization and socio-economic change; trends of change in Indian society.

Science, Technology and Society – Social responsibility of science and technology; human critique of science and technology, environmental issues- pollution of air, water and soil; energy crisis; social impact assessment, environmental awareness, people's action.

Population and Society - Interface between population and social development, population problems, population policy, population controls.

Note: The candidate will be accepted to illustrate theory by facts and to analyze problems with the help of theory. They will be accepted to be particularly conversant with Indian problems.

PAPER-II

SOCIETY IN INDIA

Indian Society – Traditional bases - Varnashrama and dharma; unity and diversity; cultural pluralism and Unitarianism.

The Structure and Composition of Indian Society – villages, towns and cities; rural-urban linkages; tribes- problems, constitutional safeguards and development; weaker sections- dalits, women and minorities, population profile and related issues.

Basic Institutions – Family- forms and changing dimensions; marriage- forms, functions and changing dimensions; kinship- types and regional variations.

Indian Caste System – Origin of caste, its socio-economic and cultural dimensions, issues of equality and social justice; scheduled castes and backward classes -problems, safeguards and welfare.

Rural Class Structure – Classes in India, agrarian classes, peasant movements, land reforms, commercialization of agriculture and change in land use pattern, emerging agrarian unrest, leadership and its changing dimensions.

Social Change – Impact of reform movements, social movements and factors of planned change-Five Year Plans, legislative and executive measures; impact of liberalization, privatization and globalization; trends of change.

Power Structure – Working of the democratic political system in a traditional society; socio-cultural basis of political parties; panchayati raj and urban local self-government.

Issues and Problems – Poverty, inequalities of caste and gender; dowry, domestic violence, intergenerational conflict, problems of elderly; regional disparities; ecological degradation and environmental pollution; white collar crime, corruption, drug addiction, suicide.

STATISTICS

PAPER-I

- (i) Probability: Classical and Statistical definitions of probability, Importance of the Concept of Probability, Calculation of Probability, Theorems of Probability, Simple theorem of probability with examples. Conditional probability and statistical independence Bayes theorem. Random variables- Discrete and continuous probability functions and probability density functions probability distributions in detail more varieties. Mathematical expectations.
- (ii) Statistical methods- Compilation classification, tabulation and diagrammatic representation of various type of statistical data. Concepts of statistical population and frequency curves, measures of central tendency and dispersion. Moment and cumulants, Measure of skewness and Kurtosis Moments-generating function. Hyper-geometric normal Negative Binomial Rectangular and log normal distributions General description of the Pearsonian system of curves.
- (iii) Theoretical distribution, binomial, Poisson and Normal distribution. General properties of a bivariate distribution, bivariate normal distribution, measures of association and contingency, Correlation and Regression Analysis, Difference between correlation and Regression Analysis. Correlation and linear regression involving two or more variables. Correlation ratio interclass correlation Rank correlation, Non-linear regression analysis.
- (iv) Sampling methods, basic of sampling types and importance of sampling. Sampling distribution and statistical inference---random sample, statistics concepts of sampling distribution and standard error. Derivation of sampling distribution of mean of independent normal varieties. χ^2 -T and F statistics, their properties and uses. Derivation of sampling distribution of sample means variances and correlation coefficient from a bivariate normal population. Derivation (in large samples) and uses Pearsonian χ^2 .
- (v) Theory of Estimation --- Requirements of a good estimate/biasedness, consistency, efficiency and sufficiency Cramer-Rao bound to variance of estimates. Best linear unbiased estimates. Methods of estimation. General description of the methods of moments, methods of maximum likelihood of least squares and methods of minimum χ^2 properties of maximum likelihood estimators (without proof). Theory of confidence intervals, simple problems of setting confidence limits.