EXPERIMENTAL AND PRACTICAL WORK

PRACTICAL 30 MARKS

Problem – 10 Marks
Lab. Notebook – 5 Marks
Viva voce – 5 Marks
Project – 10 Marks

[1] INTELLIGENCE (EXPERIMENT)

Non-verbal Intelligence is to be tested using Dearborn from Board Test and Alexander Pass along Test.

[2] LEADERSHIP POTENTIALS (PROJECT WORK)

The Sociometric method will be followed for Class room practice at least 10 students of the same class should be provided.

[3] PERSONALITY (TEST)

Personality may be assessed by KNPI or KIEI

[4] GENERAL HEALTH (PROJECT WORK)

General Health Questionnaire (GHQ) - [Goldberg] should be used for measuring health status.

Note for Experimental and Project Work.
Each of the topics mentioned for both class XI and XII is compulsory.

SOCIOLOGY (SOCG)

Class – XI

FULL MARKS – 100

Theory : 80 Marks + Project : 20 Marks

Unit 1: Introducing Sociology

- What is Sociology – 'Sociological Imagination' – C. W. Mills; Sociological perspectives – Functionalist, Conflict, Symbolic Interaction, Feminist & Post Modernist; Sociological and its relationship with other social sciences (viz. Anthropology, Political Science, Economics, Philosophy, Psychology and History)
- Emergence of Sociology as an academic discipline – different forces : University Revolution (a very brief outline)
- Scientific nature of Sociology
- Sociological Methods – Quantitative & Qualitative; Positivist & Interactionist methods; Research methodology: Social research, Stages of research, Social survey, Observation, Questionnaire, Interview
- Use of statistical tools & techniques – graphical representation of statistical data – grouping of data (pie-chart, bar-diagram, histogram, frequency polygon)

Unit 2: Basic Sociological Concepts

- Society – Concept, Structure and Process
- Community & Association – Concept, Interrelationship and Differences
- Organization – Concept and Types
- Social Groups – Typology (special reference to Primary and Secondary Groups)

Unit 3: Culture, Social Interaction and Formation of Self

- Meaning and Importance
- Components of Culture – Values, Norms, Beliefs, Folkways, Mores, Laws, Language and Technology
- Types of Culture – Material & Non-material Culture, Culture and Civilization, Cultural lag, Sub- culture, Popular Culture, Folk Culture, Consumer Culture, Culture Pluralism (a very brief outline)

- Social Interaction – Verbal and Non verbal interaction
- Socialization - Concept, Meaning, Agencies, Importance, Life Course, Socialized vs. Unsocialized children
- Socialization and Development of Personality (Cooley, Mead) – Nature vs. Nurture debate
- Socialization and Social control – Relationship and Importance
- Social Conformity, Non conformity, Deviance and Delinquency (very briefly)
- Crime – Concepts and Types (Gender crime, Organized crime, Cyber crime and White
  Collar crime)

Unit 4: Social Institutions

- Meaning and Interrelationship among different institutions
- Marriage and Family – Origin, Meaning, Features, Types, Significance – Global trends in Marriage & Family – Cohabitation, Single Parent Family, Divorce rates, Homosexual Family, ''In-Vitro" Fertilization – Kinship (in brief : Terminologies and Importance, Descent, Lineage, Sib & Clan)
- Economy – Types of Economic Systems – Means of Subsistence (in brief)
  - Direct Appropriation Economy
  - Pastoral Economy
  - Agricultural Economy
  - Handicraft Economy
  - Industrial Economy

  Preliminary Concepts – Utility, Wealth, Property, Capital, Consumer Goods, Market
- Politics – State (Definition and Significance) – Government (in brief : Concepts and Types, viz. Democracy, Dictatorship, Federal, Unitary, Republic, Monarchy, Presidential, Parliamentary) – Power and Authority (Nature and Differences)
- Religion, Magic and Science – Basic Concepts, Relationship and Differences
- Education – Meaning & Concepts, Functions of Education
- Health, Illness & Ageing – Concepts (A brief idea about mental health)

Unit 5: <u>Social Stratification and Inequality</u>

- Social Stratification – Concept, Bases of Social Inequality (Caste, Class, Race and Gender) Marxian concept of social stratification
- Social Mobility – Concept, Types (Vertical and Horizontal Mobility)

Project Work: 20 Marks

Suggested Areas for Assignment:

1) Sociological Perspectives
2) Culture, Interaction and Formation of Self (Unit 3)
3) Health, Illness and Ageing

N.B. Topics for assignment should be altered every year from the suggested areas. Two assignments should be completed in each year. Size of the assignment should be around 500 words. Marks will be awarded jointly by the internal and external examiners on the basis of the written assignments and viva-voce.

References :

Browne, Ken (2008), An Introduction to Sociology, 3rd. ed. UK. Polity

Giddens. Anthony, Sociology, 5th & 6th, Edition Polity

Pullinger, (2011), Sociological Thinking, Rawat Publications

Alexander, J.C. & Thompson, K (2008) A Contemporary Introduction to sociology - "Culture and Society in Transition", USA, Paradigm Publishers

Newman, David, M(2008). "Sociology; Exploring the Architecture of Everyday Life" USA, Pine Forge Press

Bryman, A lan, (2008) Social Research Methods, Oxford

Baker, Theresa, (1972) Social Statistics, Tata McGraw Hill

Elifson and others, (1997), "Fundamentals of Social Statistics", Mc Graw Hill

SOCIOLOGY (SOCG)

Class – XII

FULL MARKS: 100

Theory : 80 marks + Project : 20 marks

Unit I: Sociology in India

Development of Sociology in India; Different perspectives in studying Indian Society; Indological, Historical, Structural-Functional, Dialectical, Subaltern.

Unit II: Indian Society: Structure and Process

a) Society in Pre-British India: Socio-economic and cultural conditions of Indian Society.
b) Processes of Social Change in India: Brahminization, Sanskritization, Westernization, Modernization, Secularization, Globalization and Liberalization.

Unit III: Changes in Social Structure

a) FAMILY: Indian Joint Family; Changes in structure and functions of family; Recent trends in family pattern.
b) RURAL AND URBAN COMMUNITIES: Changes in economy and Land Ownership Pattern; Rural class structure and Urban class structure.
c) CASTE AND TRIBE: Changes in Caste system: Role of Vivekananda, Gandhi, Ambedkar to Caste system; Caste-Class continuum; Caste in Literature; Tribes in transition.
d) RELIGION: Views of Vivekananda, Maulana Abul Kalam Azad, Rishi Aurobindo; Religion in the present day society.
e) EDUCATION: Views of Vidyasagar, Rabindranath, Gandhi, Gokhale; Education & Modernization.

Unit IV: Contemporary Social Issues

a) Population, Poverty. Illiteracy and Unemployment: Concepts and their interrelations (in brief); Consequences and Remedies.
b) Communalism, secularism, Regionalism and Terrorism: Causes and consequences (in brief).
c) Corruption: Concept; Recent Legislations.

d) Women: Changing status of women in India, Violence against women, Women Movements.

e) Environment: Ecology-Man and Environment; Crises and Responses (Movements); Legislations.

f) Mass-Media: Concept; Role of mass-media in social life (both positive and negative).

Project Work: (20 marks)

Suggested Areas for Assignment

1) Recent trends in family pattern
2) Caste in Literature
3) Corruption: Recent Legislations
4) Women Movements
5) Environmental Issues
6) Role of mass-media in social life

N.B. Topics for assignment should be altered every year from the suggested areas. Two assignments should be completed in each year. Size of the assignment should be around 500 words. Marks will be awarded jointly by the internal and external examiners on the basis of the written assignments and viva-voce.

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STATISTICS (STAT)

Class –XI

Full Marks - 100

THEORY (Full Marks –70)

Descriptive Statistics

Introduction: Meaning and definition of statistics, Nature of statistics, Importance and Scope of statistics, Relation with some allied subjects, Uses of statistics, Misuses of statistics.

Types of data: Primary and Secondary data, Time series and Cross-sectional data, Ordinal and Nominal data, Quantitative and Qualitative data, Discrete and Continuous data. Illustration with examples.

Collection of data: Designing a questionnaire and a schedule.

Scrutiny of data: Checking internal consistency and detection of errors in recording.

Presentation of data: Tabular presentation and diagrammatic presentation of data. Line diagram (Simple line diagram, ratio chart, multiple-axis-chart, multiple line diagram.). Bar diagram (Horizontal bar diagram, Vertical bar diagram, Multiple bar diagram, Divided bar diagram.) Pie diagram.

Frequency distributions, cumulative frequency distributions and their graphical representations. {Column diagram, Step diagram (discrete variable), Histogram, Frequency polygon, Ogive}.

Measures of Central Tendency: Mean, Median, Mode.

Measures of Dispersion: Range, Mean deviation, Standard deviation, Coefficient of variation. Quantiles and Percentiles, Quartile deviation.

Moments: Raw and Central moments up to fourth order and their conversions.

Measures of Skewness and Kurtosis: Different measures based on moments and quantiles. (associated inequalities involving b_i and b_2 coefficients.)

Mathematics

Inequalities: Some fundamental inequalities such as the square of a real quantity is non-negative, A.M.e" G.M.e" H.M. for a set of positive quantities, Cauchy-Schwarz's inequality – this topic must be extended to this limit.

Concept of Polynomials and Number Theory: Divisor of an Integer, Greatest Common Divisor, Concept of (mod n). Prime and Composite number. Fermat's number and Fermat's theorem (without proof). Different forms of n^{th} degree polynomial relating to three interpolation formulae as per syllabus. Remainder Theorem. Roots of n^{th} degree equation. Relations connecting the roots and coefficients with simple examples.

Differencing: Concept of 'Delta'-operator required for interpolation.

Simple interpolation: Newton's forward, backward and Lagrange's interpolation formulae. (Derivation of error terms is excluded)

Probability

Random Experiment: Sample Space, Notion of events and operations with events.

Definition of Probability: Classical and Relative-frequency approach to Probability, limitations of classical definition, axiomatic definition (statement only).

Theorem of Total Probability. Bonferroni's inequality. Boole's inequality.

Compound Probability, Conditional Probability and Bayes' theorem.

Statistical Independence of events (no. of events not more than three) and problem sums.

Application of statistics

Index Number:

Definition of Index Number. Types of Index Number: Price, Quantity and Value indices. Construction of Price Index Number and its uses. Various price index formulae; (Laspeyres', Paasche's, Edgeworth-Marshall and Fisher). Tests of consistency (Time Reversal test and Factor Reversal test).

Population Statistics:

Introduction; Vital events, Sources of Data on Vital events, Rates and Ratios of Vital events. Measurements of Mortality: Crude Death Rate, Specific Death Rate, Standardized Death Rate.

Measurements of Fertility: Crude Birth Rate, General Fertility Rate, Age Specific Fertility Rate, Total Fertility Rate.

Measurement of Population Growth: Crude Rate of Natural Increase and Vital Index.

Complete Life Table: Description and its uses.

Class—XI

PRACTICAL (Full Marks –30)

(Problems: 18; Laboratory Note Book: 4; VIVA- Voce: 4; Project Work: 4)

List of Problem Sets

1. Tabular Representation of data.
2. Diagrammatic Representation of Data. (Non-Frequency type)
3. Construction of Frequency distribution and Graphical Representation.(Univariate data only ,both discrete and continuous)
4. Measures of Central Tendency.(Problems involving Open-end classes, Missing frequencies, Pooling of two sets of data, Checking, empirical relations etc. are also to be included.)
5. Measures of Dispersion. (Problems involving Open-end classes, Missing frequencies, Pooling of two sets of data, Checking, empirical relations etc. are also to be included.)
6. Moments and Measures of Skewness & Kurtosis. (Verification of inequalities between b_1 and b_2 is desirable.)
7. Interpolation: Newton's Forward, Backward and Lagrange's Formula.
8. Different types of Index Number.
9. Mortality Rates, Fertility Rates and Life Table.
10. Project Work : It will be based on Descriptive Statistics