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1. POLITICAL SCIENCE (PAPER-I)

[Paper Code: PLS-I, Full Marks: 100, Time: 3 hours]

Group – A: Political Theory.

Approaches to the study of Political Science: – Traditional and modern approaches. Theories regarding the origin of the State: Social Contract, Evolutionary. Theories regarding the nature of the State: Idealist Theory, Marxist Theory. Sovereignty: Monistic, Pluralistic. Theories of State functions: Individualism, Socialism, Welfare State.

Group – B: Political Thought.

Plato's concept of justice, Aristotle's concept of State, Contribution of Machiavelli to the history of western political thought.

Manu's Political ideas, Kautilya's concept of State & duties of the King, Gandhiji's concept of ideal state and satyagraha.

Group – C: Public Administration.

Theories of Administration: Scientific Management theory, Classical Theory of Management.

Administrative decision making: Herbert Simon's behaviour alternative model.

Administrative behaviour: Leadership, Communication, Accountability, Delegation.

Development Administration: Basic features.

Bureaucratic Theory : Marx, Max Weber.

District Administration : Role of D.M. & Collector in India.

Major issues in Indian Administration: Lok Pal and Lok Ayuktas.

Group – D : International Relations :

Nature & Scope of International Relations.

Crisis in the territorial State.

Role of National Interest in the formulation of foreign policy of a country.

Instruments and techniques of state interaction : Propaganda and Diplomacy.

Globalization – its meaning and implication.

Human Rights and the UNO.

Military alliances and regional arrangements:– NATO, OPEC, ASEAN, SAARC, OAU, G-8.

Fundamental features of Indian Foreign Policy.

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2. POLITICAL SCIENCE (PAPER-II)

[Paper Code: PLS-II, Full Marks: 100, Time: 3 hours]

Group – A: Indian Government and Politics.

Circumstances leading to the birth of Indian National Congress.

Rise of Extremism – Methods of the Moderates and Extremists – their differences.

History of Swadeshi Movement, Non-Cooperation Movement, Civil disobedience Movement, Quit India Movement.

Constituent Assembly – its composition and functions. Salient features of the constitution. Directive Principles. Political Parties and pressure groups. Local Self Governing Institutions (Panchayats, Municipalities, TTAADC).

Group – B: Govt. and Politics of Britain.

Sources of the British Constitution, Conventions, Dicey's concept of Rule of Law, Powers and position of Monarch, Reasons for the survival of Monarchy, Prime Minister, Cabinet System, Parliament and its composition and functions, Role of Her Majesty's Opposition, Role of the speaker of the House of Commons.

Group – C: Govt. and Politics of U.S.A.

Salient features of the constitution of the USA.

Nature of US Federalism – its recent trends.

US President – His powers, functions and role, and his relation with the Congress & Cabinet . Composition and functions of US Congress. Composition and jurisdiction of the US Supreme Court, Doctrine of Judicial review. Amendment to the constitution.

Group – D: Govt. and Politics of the People's Republic of China (PRC).

Salient features of the constitution of PRC, Basic principles of economic system of the PRC. Composition & functions of National People's Congress of China. State Council and its relation with the National People's Congress. Fundamental Rights and Duties of the citizens of China. Role of the People's Liberation Army.

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3. ECONOMICS (PAPER-I)

[Paper Code: ECO-I, Full Marks: 100, Time: 3 hours]

GROUP – A [MICRO-ECONOMICS]

1. Economic Agents: Households, Firms and the Government.
Consumer Behaviour: The Law of Demand & its Exceptions. Elasticity of Demand [Price, Cost & Income Elasticity] & Classification of Commodities. Consumer's Equilibrium using Indifference Curves- Derivation of Demand Curve- Price Effect, Income Effect & Substitution Effect- Giffen Paradox.
2. The Firm and the Production Function- Law of Variable Proportions & Return to Scale- Derivation of Cost Function from Production Function.
3. Analysis of Market Structure -Equilibrium of Firm under Perfect Competition, Monopoly, Monopolistic Competition & Oligopoly-Short & Long Run.
4. Marginal Productivity Theory of Distribution – MPP, MRP & VMP under Perfect Competition & Monopoly.
5. Pareto Optimality and Perfect Competition; Market Failure.

GROUP – B [MACRO-ECONOMICS]

1. National Income Accounting: GDP, GNP, NNP, NI, PI, PDI. GDP as Measure of Economic Welfare. Concept of HDI, GDI.
2. Simple Keynesian Model of Income & Employment Determination. Interaction of Product & Money Market - The IS - LM Model.
3. Open Economy Macro-Economics: Effectiveness of Fiscal & Monetary Policy: Fixed & Flexible Exchange Rates - Perfect & Imperfect Capital Mobility.
4. Central Bank: Functions & Objectives. Commercial Banks & Credit Creation. Money Multiplier.
5. Inflation: Cost Push & Demand Pull; Effects of Inflation on Production Distribution & Stability: Short Run & Long Run Phillips Curve.

GROUP – C [TRADE & DEVELOPMENT]

1. Absolute Advantage, Comparative Advantage, & Heckscher - Ohlin Theory of Trade. Gains from Trade.
2. Terms of Trade Debate: Singer-Prebisch Hypothesis.
3. Balance Of Payments: Current & Capital Account. The Monetarist Approach
4. Free Trade & Protection: Arguments For & Against - Tariff, Quota, & Trade Restrictions.
5. International Monetary Institutions & Developing Countries: Role of IMF, World Bank & WTO.

GROUP – D [PUBLIC FINANCE]

1. The Concept of Public Goods and the Role of Government- Allocation of Public Goods, Lindahl Model.
2. The Benefit & Ability to Pay Principle of Taxation.
3. Impact and Incidence of Tax under Monopoly & Perfect Competition.
4. The Burden of Public Debt.
5. Deficit Financing of Development Expenditure.

4. ECONOMICS (PAPER-II)

[Paper Code: ECO-II, Full Marks: 100, Time: 3 hours]

GROUP – A [FEATURES OF INDIAN ECONOMY]

1. Features & Causes of Underdevelopment of the Indian Economy.
2. National Income of India: Trend, Estimation & Distribution.
3. Unemployment problem in India.
4. Poverty & Inequality in India.
5. Inflation in India: Government's Recent Policies for Control Inflation.

GROUP – B [AGRICULTURE & INDUSTRY]

1. Agriculture: Causes of Low Productivity - Green Revolution – Land Reform.
2. Indian Agriculture & WTO
3. Industry: Role of Cottage, Small & Large-Scale Industries.
4. Industrial Labour - Organized & Unorganized Labour - Industrial Policies of India [1991 Onwards].
5. Changing Role of Public Sector – Problem & Policies of Disinvestments.

GROUP – C [MONEY, BANKING, TRADE & PUBLIC FINANCE]

1. Indian Money & Capital Market; Role of RBI & Credit Policy.
2. Commercial Banks in India: Nationalisation, Banking Sector Reforms, Narasimham Committee Report
3. Indian Tax Structure, Centre State Financial Relation
4. India's Foreign Trade: .Composition & Direction, Balance Of Payment Crisis, New Trade Policies
5. Foreign Capital & Indian Economy: FDI, FII & MNCs.

GROUP – D [FIVE YEAR PLANS]

1. Meaning & Rationale of Development Planning ; Features and objectives of Indian Planning
2. Strategies of Five year plans: Nehru- Mahalanobish Strategy, Post Reform Development Strategy
3. Assessment of Five Year Plans in India- Review of Objectives & Achievements of Different Plans.
4. Financing of Indian Plans.
5. Regional Imbalances and Regional Planning: The Tripura Experience.

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5. PHILOSOPHY (PAPER-I)

[Paper Code: PHI-I, Full Marks: 100, Time: 3 hours]

Group – A:- Indian Epistemology and Metaphysics.

- i) Nyaya Philosophy: Pratyaksa : Definision & Classification Sannikarsa.
- ii) Carvaka Philosophy: Perception, Inference.
- iii) Vaisesika Philosophy: Samanya, Samavaya, Atohava, Dravya, Paramanuvada.
- iv) Vedanta Philosophy: Nature of Brahmana and nature of Moksa according to Sankara and Ramanuja.

Group – B:- Indian Logic : In Nyaya Perspective.

- i) Anumana: Paksas, Sadhya, Hetu, Vyapti, Vyaptigraha, Classification of anumana, Paramarsa, Paksata, Sapaksa, Vipaksa.
- ii) Hetvabhasa: Different kinds and their definition, Identification of Hetvabhasa with reason.

Group –C:- Indian Ethics.

- i) Purusarthas and their inter-relation, Purusarthas sadhana, Law of Karma.
- ii) Buddhist Ethics: Four Noble Truths.
- iii) The Gita: Chapter – III (Karmayoga), Chapter- VI (Abhyasayoga).

Group-D: Philosophy of Religion.

- i) Theories of Origin of Religion (Anthropological & Psychological), Theistic theories of God: Deism, Pantheism, Theism.
- ii) Atheistic theories of God: Positivism, Marxism.
- iii) National and Universal Religion.

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6. PHILOSOPHY (PAPER-II)

[Paper Code: PHI-II, Full Marks: 100, Time: 3 hours]

Group – A: Western Epistemology & Metaphysics.

- i) Empiricism, Rationalism, Criticism.
- ii) Realism (Naïve and Representative), Idealism (Subjective and Objective).
- iii) Theory of Causality (Entailment theory and Regularity Theory), Value.

Group –B: Western Logic.

i) Categorical Proposition: (i) Categorical Propositions and Classes (ii) Quality, Quantity & Distribution (iii) The Traditional Square of Opposition (iv) Further immediate inference(v) Symbolism and Diagrams for Categorical Propositions.

ii) Categorical Syllogism: i) Standard Form Categorical Syllogism ii) The formal nature of Syllogistic Argument iii) Venn Diagram technique for testing Syllogism iv) Rules and Fallacies.

Arguments in Ordinary Language: i) Reducing the number of terms in a syllogistic argument ii) Translating Categorical Syllogisms into standard form iii) Uniform Translation.

iii) Symbolic Logic: i) The value of special symbols ii) Symbols For conjunction, negation, disjunction iii) Conditional statement and material implication iv) Argument form and Argument v) Statement form, material equivalence and logical equivalence.

Method of Deduction: i) Formal Proof of validity ii) Rule of Replacement iii) Proof of Invalidity.

iv) Mills Methods of Experiment ii) Criticism of Mill's methods
iii) Vindications of Mill's method..

Group – C: Western Ethics:

i) Nature and Scope of Ethics, Moral and Non -moral, Voluntary and Non-Voluntary actions.

ii) Object of Moral Judgement, Theories of Moral standard (Hedonism, Rigorism, Perfectionism), punishment: Its different theories.

iii) Practical Ethics: Rights and Human Rights: their Characteristics (Racism, casteism), Feminism (Radical & Liberal).

Group – D: Social and Political Philosophy:

i) Basic concepts: Society, Social groups, Association, Institution, Community, Law and Custom.

ii) Relation between society and individual (Socialism individualism), Social Change (Marxist and Gandhian view), culture and Civilization.

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7. HISTORY (PAPER-I)

[Paper Code: HIS-I, Full Marks: 100, Time: 3 hours]

Group-A

1. Harappan Civilization – Extent, distinguishing features, decline.
2. Vedic Age—society, polity, economy, religion.
3. Emergence of religious protest movements—Jainism, Buddhism.
4. Mauryan empire—administration, Ashoka's concept of Dhamma
5. Satvahanas, Kushanas – socio-cultural achievements.
6. Gupta empire- administration, cultural development, literature and science, art and architecture.
7. Bengal –socio-economic and cultural condition of Pala and Sena Rulers
8. South Indian Kingdoms– Pallava art and architecture, Chola administration
9. Arab invasion of Sindh-impact.
10. Turko-Ghaznavide-Ghorian invasion-causes of success and impact

Group-B: 1200 AD -1707 A.D.

1. Establishment of the Delhi Sultanate : Iltutmish, Balban.
2. Alauddin Khilji – conquests, revenue, theory of kingship.
3. Tughluq dynasty- Mohammad-bin-Tughluq's achievements and failures.
4. Bhakti, Sufi movements- impact; art, architecture and literature of the Delhi Sultanate.
5. Decline of the Delhi Sultanate.
6. Emergence of the provincial dynasties- Vijaynagar, Bahamani
7. Advnt of the Mughuls- Babur, Humayun; Sher Shah Suri's administration
8. Akbar- conquests, administrative measures, revenue reforms, religious policies Mansabdari system. Jhangir-an estimate, Shah Jahan-Cultural Achievements, Aurangzeb – policy towards Sikhs, Marathas, Rajputs and his religious policy.
9. Monotheistic movements- Kabir, Nanak, Chaitanya; Mughal art and architecture.
10. Causes of decline of the Mughal empire.

Group-C : 1707 AD- 1947 A.D.

1. British expansion- Carnatic wars, Bengal, Marathas, Mysore
2. Economic impact- Drain of wealth, Land revenue system (Permanent Settlement, Ryowari, Mahalwari), de-industrialisation, commercialization of agriculture.
3. Spread of western education, growth of press; 19th century Bengal Renaissance, Young Bengal movement and other socio-religious reform movements.
4. Peasant movements in 19th century; the Great Revolt of 1857 –causes, effects, nature.
5. Growth of national consciousness – Associations, foundation of Indian National Congress, Moderate phase and Extremist divide.

6. partition of Bengal –Swadeshi movement; Aligarh movement and its aftermath.
7. Gandhi-Non cooperation, Khilafat, Civil disobedience, Quite India movements.
8. Subhas Ch. Bose and Indian National Army; Birth of Communist Part of India-role in RIN mutiny.
9. Constitutional Reforms- Acts of 1909, 1919, 1935
10. Demand for Pakistan and Partition of India.

Group-D : North East India

1. Tripura under the Manikyas : State formation under early Manikyas; military exploits of Dhanya Manikya and Vijay Manikya; raise and fall of Shamsar Gazi
2. British conquest of plains of Tripura – appointment of Political Agent; administrative reforms: Bir Chandra to Bir Bikram.
3. Revolt and Reform movements : Tipra revolt (1850), Kuki disturbances (1860-1861), Jamatia revolt (1863) Reang rebellion (1943-44) Gana Mukti Parishad and its impact, merge of Tripura into Indian Union (1949).
4. Socio-economic and cultural condition under the Manikyas: customs and customary practices among the tribes; Jhum cultivation, land revenue system; religion and festivals of Tripura; development of language and literature; art and architecture- temples, Pilak Deotamura.
5. History of Assam : State formation under Ahoms; administration, socio-economic- religious condition under the Ahoms; causes of decline.
6. Annexation of Assam by the East India Co.; growth of tea industry and its impact; Bhakti movement –rule of Sanaradeva; Great Revolt of 1857 –role of Maniram Dewan, establishment of British rule in Cachar.
7. Other North eastern states:
 - (i) NEFA-birth of Arunachal Pradesh;
 - (ii) Manipur-Anglo-Manipur war 1891, Nupilian-1931
 - (iii) Nagaland- Morung system.'
 - (iv) Mizoram-Chieftainship (Lal)
 - (v) Meghalaya –Status of women with special reference to Khasi, Garo, Jaintia
8. British policy of trade and commerce in NE India
Formation and role played by North East Council.

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8. HISTORY (PAPER-II)

[Paper Code: HIS-II, Full Marks: 100, Time: 3 hours]

Group-A

1. Industrial Revolution and its impact
2. French Revolution (1789) –causes and nature
3. Constituent Assembly.
4. Reign of terror.
5. Rise and fall of Napoleon Banaparte
6. Vienna Congress, Concert of Europe

Group-B

1. Metternich system
2. Significance of 1830 and 1848 revolutions
3. Second French empire under Napoleon III
4. Russia-Czar Alexander II.
5. Unification of Germany and Italy.

Group-C

1. Bismarckian diplomacy –1871-1890
2. Kaiser William II –foreign policy
3. Eastern Question and the Balkan wars
4. Russian Revolution-1917.
5. World War I-causes and consequences

Group-D

1. Paris Peace Settlement –Treaty of Versailles –League of Nations.
2. Reparation problem and the Great Depression.
3. Rise of Fascism; rise of Nazism-Spanish Civil War- Munich pact.
4. Second World War- causes and responsibilities.
5. UNO-formation, principles and aims.

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9. EDUCATION (PAPER-I)

[Paper Code: EDC-I, Full Marks: 100, Time: 3 hours]

GROUP – A

1. Nature and scope of Education, Education as a science, Education as a process of social interaction.
2. Agencies of education: Informal Agency – Home/Family; Non- formal Agencies state, Media; Formal Agency – School.
3. Meaning and nature of Philosophy; relation between Philosophy and Education; Major Philosophies of education – Idealism, Naturalism.
4. Curriculum: definition, types of curriculum, principles of curriculum construction; child centric and life centric curriculum.

GROUP – B

1. Educational Psychology – its meaning, nature and scope; Relation between education and psychology.
2. Individual differences: causes of individual differences; significance of individual differences and its educational implications.
3. Learning: nature and scope of learning; forms of learning; theories of learning.
4. Intelligence: concept and definitions; theories of intelligence; measurement of intelligence.
5. Guidance: concept of guidance; nature and scope of guidance; different forms and types of guidance; importance of guidance services in school.

GROUP – C

1. Vedic Education: aims, curriculum, methods of teaching, rituals & ceremonies.
2. Historical perspectives of Macaulay's Minutes and Bentinck's resolution; Adams Report and its recommendations.
3. Wood's Despatch-1854: historical perspective and its influence on the subsequent development of Indian education.
4. National education movement of India.
5. Mudaliar Commission- 1952-53; Kothari Commission- 1964-66.

GROUP – D

1. Pre-primary and primary education in India: aims, objectives, problems, solution, measures for expansion.
2. Women education in India: aims, objectives, problems, solution, measures for expansion.
3. Population education in India: aims, objectives, problems and solution.
4. Educational Evaluation: its meaning, purpose, need; New process of evaluation.
5. Need for statistics in education; frequency distribution; graphical representation–Bar Graph, Pie-Diagram, Histogram, Frequency Polygon & Ogive.

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10. EDUCATION (PAPER-II)

[Paper Code: EDC-II, Full Marks: 100, Time: 3 hours]

GROUP – A

1. Education – its meaning and concept; Aims of education – individual aims, social aims, vocational aims and democratic aims.
2. Schools of philosophy: Pragmatism, Marxism, Realism.
3. Functions of education: individual development, social development, transmission of cultural heritage.
4. Methods of teaching: Kindergarten method, Montessori method, Project Method.

GROUP – B

1. Psychology: meaning, concept, distinction between psychology and educational psychology, methods of educational psychology.
2. Habit: meaning and concept of habit, laws of habit formation, importance of habit in education, teacher's responsibilities in habit formation.
3. Learning and maturation, learning and motivation, transfer of learning.
4. Emotion: definition, nature, characteristics; place of emotion in education.
5. Counselling: its concept and nature, objectives and scope; different types of counseling and their educational implications .

GROUP – C

1. Buddhist education: aims, curriculum, methods of teaching; Islamic education: aims, curriculum, methods of teaching.
2. Bengal renaissance; educational contributions of Raja Rammohan Roy, Derozio, Vidyasagar .
3. Recommendations of Indian Education Commission—1982: historical perspective and its influence on the subsequent development of Indian education.
4. Radhakrishnan Commission – 1948.
5. National Education Policy – 1986 and Revised Education Policy of 1992.

GROUP – D

1. Secondary education and Higher education in India: aims, objectives, problems, solution, measures for improvement.
2. Vocational and Technical education in India: aims, objectives, problems, solution, measures for improvement.
3. Education of Physically Challenged and Mentally Challenged Children.
4. General principles of educational and psychological test construction and Standardization.
5. Measurement of central tendencies and their uses in the field of education; measurement of variability – Range, MD / AD, QD, SD.

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11. COMMERCE (PAPER-I)

[Paper Code: COM-I, Full Marks: 100, Time: 3 hours]

Financial Accounting: Nature, Scope and Objectives of Accounting-Accounting as an Information System- Users of Accounting Information. Generally Accepted Principles of Accounting-The Accounting Equation-Accrual Concept-Other concepts and conventions, Distinction between capital and revenue expenditure. Accounting Standards. Final Accounts of Sole Proprietors, Partnership Firms and Limited Companies-Statutory Provisions -Reserves, Provisions and Funds. - Final Accounts of non profit organization.

Accounting problems related to admission and retirement of a partner and dissolution of a firm.- Advanced problems of company accounts. -Amalgamation absorption and reconstruction of companies.

Auditing: - Nature, objectives and basic principles of auditing.- Techniques of Auditing-physical verification, examination of documents and vouching, direct confirmation, analytical review.- Planning an audit, audit programmes, working papers, audit process. - Evaluation of internal controls. - Test checking and sampling. - Broad outlines of company audit. - Audit of non-corporate enterprises

Cost Accounting : Nature and functions of cost accounting. - Job Costing - Process Costing - Marginal Costing; Techniques of segregating semi-variable costs into fixed and variable costs. - Cost-volume-profit relationship; aid to decision making including pricing decisions, shutdown etc.

Elements of Taxation:- Definitions - Basis of charge. - Incomes which do not form part of total income.- Simple problems of computation of income under various heads, i.e., salaries, income from house property, profits and gains from business or profession, capital gains, income of other persons included in assessee's total income.- Aggregation of income and set off/carry forward of loss. - Deductions to be made in computing total income.

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12. COMMERCE (PAPER-II)

[Paper Code: COM-II, Full Marks: 100, Time: 3 hours]

Business Organization: Distinctive features of different forms of business organization. Sole Proprietor - Partnerships- characteristics, Registration, Partnership deed, Rights and duties, Retirement, Dissolution. - Joint Stock Company-Concept, characteristics, types.- Cooperative and State ownership forms of organizations. - Types of securities and methods of their issue.

Economic functions of the capital market, stock exchanges, Mutual Funds. Control and - regulation of capital market. - Business combinations; control of Monopolies. Problems of modernization of industrial enterprises. Social Responsibility of business. - Foreign Trade-Procedure and financing of import and export trade. Incentives for export promotion. Financing of foreign trade. - Insurance-Principles and practice of Life, Fire, Marine and General Insurance.

Principles of Management: Management functions-Planning-strategies, Organising-levels of authority Staffing, Line function and staff function, Leadership, Communication, Motivation, Directing-Principles, Strategies. - Coordination-Concept, types, methods. - Control-principles, performance standards, corrective action. Salary and wage administration- Job evaluation.

Organization Structure- Centralization and decentralization-Delegation of authority-span of - control- Management by Objectives and Management by Exception. - Management of change; Crisis Management. - Office Management-scope and principles; systems and routines; handling of records- modern aids to Office management; office equipment and machines; Automation and Personal computers. - Impact of Organisation and Methods (O & M)

Company Law: Joint stock companies-incorporation; documents and formalities-Doctrine of indoor management and constructive notice. - Duties and powers of the board of directors of a company. Chief Executive; role and functions-qualifications for appointment. -Company Secretary-role and functions-qualifications for appointment. Majority powers and minority rights;- prevention of oppression and mismanagement -Winding up- kinds and conduct.

Financial Management: Concept and Scope and Objectives of Financial Management -Risk and Return relationship. - Financial Analysis as a Diagnostic Tool. - Management of Working Capital and its Components-Forecasting working capital needs, inventory, debtors, cash and credit management. - Investment Decisions-Nature and Scope of Capital Budgeting-Various types of decisions and their application - Consideration of Risk and Uncertainty-Analysis of Non-financial aspects. Rate of Return on Investments-Required Rate of Return-its measurement-Cost of Capital-Weighted Average Cost-Different Weights. - Concepts of Valuation-Valuation of firm's Fixed Income Securities and Common Stocks. - Dividend and Retention Policy- Residual Theory or Dividend Policy-Other Models-Actual Practices. - Capital Structure-Leverages-Significance or Leverages-Theories of Capital Structure with special reference to Modigliani and Miller approach. Planning the Capital Structure of a Company; EBIT-EPS Analysis.

13. PSYCHOLOGY (PAPER-I)

[Paper Code: PSY-I, Full Marks: 100, Time: 3 hours]

Group-A

- i) Psychology as a basic science; its relation with other sciences. Historical overview and modern trends in psychology. Methods of study.
- ii) Biological foundation of behavior. Brief study of human nervous system and endocrine system. Sensory processes.
- iii) Cognitive psychology – history, methods and paradigms.

Group-B

- i) Attention :- Nature and its operation during cognition . Memory : Stores of memory and types of memory.
- ii) Perception process : Selection, organization and interpretation. Space and movement perception. Learning : Behaviouristic and cognitive approaches to learning and their implications.
- iii) Thinking and problem solving : Language and thinking. Techniques of problem solving. Factors of problem solving.

Group-C

- i) Concept and principles of human development. Determinants of growth and development. Physical, social and emotional development of a child from birth to adolescence.
- ii) Development of intelligence and personality. Modern theories and measurement of intelligence and personality.
- iii) Guidance and counseling.

Group-D

- i) Psychological testing – Definition, characteristics, uses and classifications.
- ii) Steps of test construction and standardization. Concept of reliability and validity. Establishment of norm of a test.
- iii) Basic concepts of attitude, aptitude and achievements tests.

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14. PSYCHOLOGY (PAPER-II)

[Paper Code: PSY-II, Full Marks: 100, Time: 3 hours]

Group-A

- i) Nature and methods of Applied psychology with special reference to health, sports, defence, consumer and counseling psychology.
- ii) Environmental psychology – nature, scope and methods of study. Environmental hazards and coping.
- iii) Organization psychology – nature, scope and importance.

Group-B

- i) Human relations in organization. Organizational climate and organizational leadership.
- ii) Personnel selection : Uses of psychological test in selection. Job analysis : Objective, importance and methods.
- iii) Factors of job satisfaction. Job behavior- motivation and involvement.

Group-C

- i) Social psychology – scope and problems. Defining, understanding and evaluating social world. Social cognition and attribution. Person perception. Social aspect of nonverbal and verbal communication.
- ii) Forming, changing and maintaining the attitude. Prejudice and discrimination.
- iii) Group processes : Group structure, classification, functions, dynamics. Group harmony and conflict.

Group-D

- i) Abnormal psychology : Subject matter and methods of study. Concept of normality and abnormality. Psychoanalytic and humanistic approaches to mind.
- ii) Psychology of adjustment – Adjustment mechanisms and mental health. Frustration and conflict, resolutions of conflict.
- iii) Recent classification of mental disorders. Psychotherapy and its implications. Problems of contemporary society : substance related disorders (Drug and alcohol), Delinquency and antisocial behaviour, child abuse and terrorism.

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15. STATISTICS (PAPER-I)

[Paper Code: STS-I, Full Marks: 100, Time: 3 hours]

GROUP – A

Statistical Methods

Attribute and variable. Frequency distribution of attribute. Discrete and continuous random variables. Frequency distribution and cumulative frequency distribution of variables and their graphical representations. Concept of central tendency. Different measures of central tendency - mean, median and mode. Concept of dispersion. Different measures of dispersion and their properties. Relative dispersion. Lorenz curve. Box plot. Moments. Central moments expressed in terms of moment about an arbitrary origin. Skewness and kurtosis and their measures.

Bivariate data. Scatter diagram. Correlation coefficient and its properties. Rank correlation- Spearman's and Kendall's measures. Principle of Least squares. Fittings of linear, quadratic, exponential and polynomial curves by Least squares Method. Concept of regressions & Regression lines. Important results relating to regression lines.

GROUP – B

Probability & Random variables

Random experiment. Trial. Sample point. Sample space. Different types of events. Definition of Probability: Classical and relative-frequency approaches to probability, Kolmogrove's Axiomatic definition of Probability. Theorems on the probability of a union of events. Conditional probability. Theorem on conditional probability. Statistical independence of events. Bayes' theorem and its applications.

Random variables. Definition of discrete and continuous random variables. Probability mass function (p.m.f.). Probability density function (p.d.f.). Cumulative distribution function (c.d.f.) and its properties. Expectation and moments. Moment generating function (m.g.f.). Probability generating function (p.g.f.).

Bivariate probability distributions. Marginal and conditional distributions. Independence. Conditional expectation and conditional variance.

GROUP – C

Probability & Sampling Distributions

Bernoulli, Binomial, Poisson, Geometric, Hypergeometric, Uniform, Exponential, Normal, Gamma, Beta & Bivariate Normal distributions.

Sampling distribution of statistic and its Standard Error. Definitions, properties & derivations of χ^2 , t and F statistics. Derivations of distributions of sample mean and variance in case of sampling from normal population.

GROUP – D

Estimation & Test of Hypothesis

Concept of point estimation. Unbiasedness, Consistency Efficiency and Sufficiency. Maximum likelihood method of estimation. Properties of MLE (Statement only). Point estimations of parameters of Binomial, Poisson, Uniform, Normal, Exponential distributions by Maximum likelihood method.

Concepts of confidence interval and confidence coefficient. Exact confidence intervals under normal set-up for a single mean, single variance, the difference of two means and ratio of two variances. Large sample interval estimates of a single mean and a single proportion, difference of two means and two proportions.

Null and alternative hypotheses. Simple and composite hypotheses, Critical region, Type-I and type-II errors, Level of significance and size of critical region, Power of a test. Concept of P value.

Large sample tests: Tests of significance related to a single Binomial proportion and Poisson Parameter, Two Binomial proportions and Poisson parameters. Tests involving Z-transformation. Frequency χ^2 test.

Exact tests of hypotheses under normal set-up for a single mean, the equality of two means, a single variance and the ratio of two variances. Tests of significance for the equality of means, ratio of variances, correlation coefficient (null case) and regression coefficients of a bivariate normal distribution.

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16. STATISTICS (PAPER-II)

[Paper Code: STS-II, Full Marks: 100, Time: 3 hours]

GROUP – A

Sample Survey

Concepts of a finite population and of a sample. Need for sampling. Complete enumeration and sample surveys. Planning and execution of sample survey. Biases and Errors. Judgment and probability samplings. Tables of random numbers and their uses.

Basic samplings and estimation procedures: Simple random sampling with and without replacement. Associated unbiased estimators of population total, mean and proportion. Their variances and unbiased estimators of variances.

Stratified random sampling: Estimation of population mean and population total. Proportional and optimum allocations. Comparison with simple random sampling. Short note on Construction of Strata.

Basic concept (Without proof of theorems) : Ratio and Regression methods of estimation, Linear and Circular Systematic sampling, Two-stage sampling, Two-phase sampling, Cluster sampling and PPS sampling.

GROUP – B

ANOVA & Design of Experiments

Heterogeneity and Analysis of variance. Basic concept of fixed, random & mixed effect model. Analyses of variances for one-way and two-way classified data under fixed effect model. Analysis of variance with equal but more than one observation in each cell for two-way classified data under fixed effect model.

Principles of experimental design: Randomization, Replication and Local Control. Uniformity trials. Shapes and sizes of plots and blocks. Completely randomized design (CRD). Randomized block design (RBD). Latin square design (LSD). Comparison of efficiencies of CRD, RBD and LSD.

GROUP – C

Index Numbers, Time Series Analysis & Population Studies

Index Numbers: Price, quantity and value indices. Price index numbers: Construction (various formulae), uses and limitations. Tests for index numbers. Consumer price index number (method of construction and uses).

Time Series Analysis: Components of time series. Additive and multiplicative models. Trend and seasonal components. Measurements of trend by Moving Average and Fitting Mathematical curves by Least squares Method. Determination of seasonal indices by Method of simple Averages, by Method of Trend Ratios and Ratio to moving averages. Sources of demographic data: Census, Registration, NSSO, NFHS & RCH data in India. Rates and ratios of vital events.

Measurements of morbidity & mortality: Crude Death Rate (CDR), Specific Death Rate (SPDR), Standardized Death Rate (STDR), Infant Mortality Rate (IMR), Maternal Mortality Rate (MMR).

Life tables: Descriptions of Complete life tables and its uses. Stable and Stationary populations. Construction of Complete life table from population and death statistics.

Measurement of Fertility: Crude Birth Rate (CBR), General Fertility Rate (GFR), Age-specific Fertility Rate and Total Fertility Rate (TFR).

Measurement of population growth: Crude Rate of Natural Increase and Vital Index, Gross and Net Reproduction Rates.

GROUP – D

Analysis of Categorical Data & Statistical Quality Control

Scaling of Scores on a Test: Z Score, Standard Score, Normalised Score, T Score, Percentile Score. Scaling of rankings in terms of normal probability curve. Scaling of ratings in terms of normal curve.

Concepts of quality and quality control. Process control and product control. Control charts and their uses. Choice of subgroup sizes. Constructions of \bar{X} , R, S.D (?), np, p and C charts.

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17. GEOGRAPHY (PAPER-I)

[Paper Code: GEO-I, Full Marks: 100, Time: 3 hours]

Group – A – GEOMORPHOLOGY:

- Internal structure of the earth.
- Rock types and their origin, classification, characteristics and resulting landforms.
- A critical examination of A.G. Wegener's theory on Continental Drift.
- Plate Tectonic Theory : Different Plates, Plate margins and Plate boundaries, Plate movement and resultant landforms.
- Earth Movements : Orogenic and Epeirogenic : Resulting structures – Folds and Faults and their associated landforms.
- Weathering and Mass Wasting : Classification, Causes and Effects.
- Different Processes and resultant landforms of the following agents of sub-aerial denudation : River, Glacier, Wind, Ground Water and Sea-waves.

Group – B – CLIMATOLOGY:

- Composition and structure of the atmosphere.
- Atmospheric temperature – Horizontal and Vertical Distribution.
- Atmospheric Air Pressure : Vertical and Horizontal distribution.
- Winds – Factors affecting wind motion ; Different types of winds – Planetary, Periodic, Local and Irregular (Tropical cyclone, Temperate cyclone and Anti-cyclone).
- Forms of Condensation – Clouds and Fog ; Formation and Classification.
- Precipitation : Causes, Forms and Types of rainfall.

Group – C – OCEANOGRAPHY:

- Surface configuration of the Ocean Floor : Pacific, Atlantic and Indian Ocean.
- Temperature, Salinity and Density of ocean water.
- Ocean Currents : Controlling Factors, Description of Pacific, Atlantic and Indian Ocean currents.
- Ocean as a store house of resources for future.

Group – D – BIOGEOGRAPHY:

- Concept of Ecosystem, Components of Ecosystem.
- Trophic Structure, Food Chain and Food Web.
- Major Natural Ecosystems : Forest, Grassland and Desert.
- Major types of vegetation and their global distribution.
- Concept of Bio-geochemical cycles : (a) The Hydrological Cycle (b) The Carbon Cycle (c) The Oxygen Cycle and (d) The Nitrogen Cycle.
- Bio-Diversity : Concept, Importance and conservation of Plant and Wild life.

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18. GEOGRAPHY (PAPER-II)

[Paper Code: GEO-II, Full Marks: 100, Time: 3 hours]

Group – A – ECONOMIC & HUMAN RESOURCES:

- BIO RESOURCES:
 - (i) Fishing– Factors controlling the development of commercial fishing grounds of the world; Major fishing grounds of the world; Conservation of fish.
 - (ii) Lumbering in Temperate and Tropical Regions.
 - (iii) Forestry – Concept of Agro-Forestry and Social Forestry.
- AGRO-RESOURCES: Agriculture – Characteristics of the following types of farming :- (i) Intensive Subsistence Farming.(ii) Extensive Commercial Farming.(iii) Plantation Farming. (iv)Mixed Farming. (v)Humid Farming. (vi)Dry Farming.(vii) Irrigation Farming.
- HUMAN RESOURCES : Distribution and Density of population in the developed and developing countries of the world; Population growth, Global trend and pattern; Age and Sex structure of population; Fertility and Mortality; Types and causes of Migration.

Group – B – GEOGRAPHY OF INDIA:

- Structure and relief.
- Drainage.
- Climate and Climatic Divisions.
- Soil - Soil types, Soil erosion and Conservation.
- Natural vegetation.
- Problems of Indian agriculture and their possible solutions.
- Agricultural regions.
- Distribution and Production of Power Resources (Coal, Petroleum, Water, Atomic minerals) and power plants (thermal, hydel and atomic).
- Industries–Iron & Steel,Aluminium, Cotton, Paper,Sugar & Chemical industries.

Group – C – NORTH-EAST INDIA:

- Physical Setting of North-East India – Physiography, Drainage, Climate, Soil and Natural vegetation and Forest Resources.
- Cultural Setting of North-East India–Agriculture, Minerals & Power Resources, Industry, Population; Transport and Communication, Geo-political problems.
- Tripura – Physiography, Drainage, Soil, Natural vegetation, Economy (Primary, Secondary and Tertiary).

Group – D – ENVIRONMENTAL GEOGRAPHY:

- Components of Environment: – Physical and Socio-Cultural Environment.
- Environmental Degradation:-Meaning, Types(Land & Forest) and their causes.
- Environmental Pollution:-Air, Water, Noise–Their Causes, Effects & Measures.
- Environmental Hazards:- Flood, Drought, Cyclone, Tsunami, Global Warming.
- Concept of Disaster, Reduction and Management of the disasters.

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19. SOCIOLOGY (PAPER-I)

[Paper Code: SOC-I, Full Marks: 100, Time: 3 hours]

PRINCIPLES OF SOCIOLOGY

GROUP-A: FUNDAMENTALS OF SOCIOLOGY.

1. Nature and scope of Sociology and its relation with other Social Sciences- History, Political Science, Economics, Psychology and Anthropology.
2. Basic Concepts-I: Society, Community, Association, Status and Role, Norms and Values, Folkways and Mores.
3. Basic Concepts-II: Culture and Civilization, Socialization; Social Groups- Primary, Secondary, Reference; Social Structure and Function.
4. Institution: Marriage-Meaning, Functions, Rules and Forms, Family-Meaning, Types, Changes in family Structure and functions, Household, Kinship- Meaning, Descent and alliance Approaches, Rules of Residence, Terms and Usages: Religion, Economic, Political and Education.

GROUP-B: SOCIAL STRATIFICATION, INEQUALITY AND SOCIAL CHANGE.

1. Social Stratification-Meaning and Nature, Approaches to the study of Social Stratification- Marxian, Weberian, Functionalist, Caste and Class and Power as a form of Social Stratification and its changing pattern in Modern Society.
2. Inequality-Meaning, Bases and Forms; Economic and Social inequality and its impact upon Social Stratification.
3. Social Mobility-Meaning, types of Mobility, Sources and causes of Mobility; Changing pattern of Social Mobility in Modern Society.
4. Social Change-Meaning, Features, Change-in-structure and Structural Change, Factors-Demographic, Cultural and Technological, Theories- Conflict, Functional, Evolutionary and Cyclical.

GROUP-C: SOCIOLOGICAL THINKERS.

1. Pioneers: Auguste Comte and Herbert Spencer-Contributions.
2. Classical Thinkers:
 - a) Karl Marx:- Dialectical and Historical Materialism, Alienation, Class and Class struggle, Revolution and its impact.
 - b) Emile Durkheim:-Division of Labour, Social Fact, Suicide, Religion & Society.
 - c) Max Weber:-Perspective of Social Action, Ideal Type, Bureaucracy.
3. Modern thinkers:
 - a) Robert K. Merton:- Latent and Manifest Functions.
 - b) Talcott Parsons :- Social System imperatives.
4. Indian Thinkers: D.P. Mukherjee and Benoy Sarkar : Their Contributions.

GROUP-D: RESEARCH METHODOLOGY.

1. Scientific basis of Sociological Research, Major Steps in Research, Objectivity in Social Research, Quality of a Good Researcher.
2. Basic Concepts: - Theory, Fact, Variable, Hypothesis Paradigm, Statement and Sampling.
3. Types of Sociological Study: - Exploratory, Descriptive, Empirical and Case Study.
4. Techniques of Data Collection: Interview, Observation, Survey, Questionnaire, Schedule; Primary and Secondary data; Research Report Writing Process.

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20. SOCIOLOGY (PAPER-II)

[Paper Code: SOC-II, Full Marks: 100, Time: 3 hours]

INDIAN SOCIETY

GROUP-A: SOCIAL STRUCTURE AND INDIAN SOCIETY.

1. Basic features of traditional Indian society and Culture-Indian Social Organisation-Its traditional and Philosophical bases and elements, Indian Feudalism, Continuity of Indian Culture-its ingredients-Unity in Diversity.
2. Impact of British Rule- Self sufficient Village Community-Causes of destruction and consequences, Indebtedness of peasantry, Decline of rural and urban Handicrafts and Artisans, Emergence of new Social Classes and Intermediaries.
3. Caste-Definition, Features, Nature, Changing Pattern, Caste-Class-Power Continuum, Relation with Varna & Class, Jajmani System, Scheduled Castes- Definition and Problems, Untouchability, Measures for the Welfare of Scheduled Castes; Other Backward Classes and its Present Scenario.
4. Tribes- Definition, Features, Acculturation, Integration, Tribe & Caste, Geographical distribution of Tribal in India, Tribal Problems, Measures for the upliftment of Scheduled Tribes and the changing face of Tribal life.

GROUP-B: RURAL-URBAN POPULATION STRUCTURE.

1. Rural India :- Agrarian Social Structure, Evolution of Land Tenure System and Land Reforms, Rural Society in Transition, Rural-Urban differences, Rural-Urban Continuum, Rurbanisation.
2. Urban India: - Cities and Towns-Definition, Features and Growth Pattern (Urbanization), Urbanization as a way of Life, Problems related with Urbanization, and Social Effects of Urbanization.
3. Population Dynamics:- Demographic Profile of India, Causes for rapid growth of population, Population Policy and Family Planning, Emerging Issues-Ageing, Sex-ratios, Child and infant Mortality, Reproductive health.
4. Migration-Concept, Causes, Types, Factors, Impact and Trends.

GROUP-C: SOCIAL CHANGE, SOCIAL PROBLEMS AND WOMEN

1. Non-Directed Social Change: - Sanskritization, Westernization, Secularization and Modernization.
2. Directed Social Change: - Community Development Programme, Panchayati Raj, Green Revolution and Integrated Rural Development Programme.
3. Social Problems :- Poverty, Dowry, AIDS, Corruption, Communalism, Drug Addiction, Unemployment, Juvenile delinquency, Child Labour, Nepotism and Terrorism.
4. Status of Women: - Changing status of Women, Indicator of Women's status. Violence on Women, Women Emancipation and Empowerment, Women's Issues-Challenges and Responses.

GROUP-D: SOCIAL CONFLICT, MOVEMENTS AND SOCIAL POLICIES

1. Social Conflict: - Conflict as a Social Process, Types of Conflict- Ethnic, Religious, Economic and Political; Theories of Conflict-Functionalist and Marxist.
2. Social Movements:- Meaning, Dimension, Types of Social Movements, Peasant Movements-Tebhaga, Telengana, Naxalite, Backward Class Movement, Students and Youth Movement.
3. Development and its Determinants: - Meaning, Factors, Social determinants of development; Privatization-Definition, the trends of Privatization, Privatization in India, Effects of Privatization, Globalization – Concept, Main purpose of Globalization, Features, Effects of Globalization in Indian Society.
4. Environment:- Meaning, Environmental Pollution, Environmental Degradation, Environment and Health, Global Warming, Environment Management, Environmental Movement and Prevention of Environment.

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