

**ANNEXURE-I**  
**HOME SCIENCE**  
**P.G DEGREE STANDARD)**

**SUBJECT CODE: 341**

**UNIT-I: FOOD SCIENCE AND TECHNOLOGY**

Composition, nutritive value , changes during cooking of various foods - cereals, legumes, vegetables, fruits, milk and milk products, flesh foods-egg, fish and meat, fats and oils and sugars. Importance of fermented foods, use of enzymes in food industry, genetically modified foods and organic foods.

**UNIT- II: HUMAN NUTRITION**

Energy- Unit, Determination of Total energy requirements, Energy balance. Carbohydrate, Fat and Protein in Human Nutrition- Sources, Classification, Functions, digestion, absorption, utilization and metabolism. Significance of dietary fiber, glycemic index, protein quality. Health effects of saturated and unsaturated fatty acids. Vitamins and Minerals in Human Nutrition- Sources, functions and deficiencies and excess of Fat soluble vitamins, Water soluble vitamins, Macro minerals, Microminerals and Trace elements. Significance of antioxidants in human nutrition.

**UNIT - III: NORMAL AND THERAPEUTIC NUTRITION**

Physiological changes affecting nutrient needs during pregnancy, lactation, infancy upto old age. Recommended Dietary allowances and meal planning. Nutritional concerns in pregnancy, infancy, early childhood, school going children, adolescents, adults and old age Therapeutic Nutrition- Etiology, symptoms, clinical features and dietary modifications for Fevers, Obesity, Gastrointestinal diseases, Diabetes Mellitus, Renal diseases, Cardiovascular diseases, Cancer and Inborn errors of metabolism.

**UNIT- IV: FOOD MICROBIOLOGY AND FOOD SAFETY**

Contamination and spoilage of plant and animal foods, food borne infection and intoxication. Safe handling of food. Methods of Food Preservation. Food Adulteration-nature of adulterants, method of evaluation of adulterants. Food safety- quality analysis, application of HACCP in food safety. Role of national and international agencies in food safety.

**UNIT- V: INSTITUTION AND ENTREPRENEURSHIP MANAGEMENT**

Principles and functions of management, tools of management –organization chart, Job Description, Job Specification and work Schedule. Personnel Management- recruitment, selection and training of employees. Financial management- Elements of cost, cost control and pricing. Labour laws related to employees – industrial dispute Act, factories Act, minimum wages Act, shops and establishments Act. : Entrepreneur - Definition - Qualities and skills - Functions of an entrepreneur - Motivational and discouraging factors of entrepreneurship. Problems and constraints faced by

women entrepreneurs. Assistance by Institutions for entrepreneurs - SSI and SISI, SIDCO. ITCOT, SIPCOT. NABARD and IDBI.

### **UNIT- VI: PUBLIC HEALTH NUTRITION**

Etiology, clinical features and preventive strategies for Under nutrition – PEM, anaemia, Vitamin A deficiency, Iodine deficiency disorders. Overnutrition - Obesity, Diabetes and Cardiovascular diseases. Nutrition Intervention programmes- ICDS, Mid day meal programme. Role of National and International Organizations in Health Care. Nutritional Assessment- Anthropometric, Biochemical, Clinical, Diet Survey, Biophysical Methods, Functional Indices and Vital Statistics. Nutrition education- Objectives, Principles and Methods.

### **UNIT- VII: HUMAN DEVELOPMENT AND FAMILY DYNAMICS**

Pre natal development characteristics of physical, motor, social, cognitive, language and emotional development from infancy to old age. Childhood ailments, characteristics and problems of adolescents, adulthood and the aged. Family- Types of family and family structure in India. Characteristics and functions of the family. Stages and adjustments in family life cycle. Individual roles, rights and responsibilities within the family. Critical family situation. Marriage- motives of marriage, factors influencing marital adjustments. Sex education.

### **UNIT – VIII: TEXTILES AND FABRICS**

Art and design in textiles – ancient and modern. Methods of printing- Hand printing- Block, Stencil, batik, tie and dye. Machine printing- Roller printing, screen printing. Dyes- classification. Fabric Construction- weaving, types of weaves. Fabric finishes- basic and special finishes. Care and maintenance of garments.

### **UNIT- IX: CONSUMER AND THE MARKET**

Definition, rights and responsibilities of consumer. Types and functions of market, buying practices, buying aids- branding, labeling and packaging. Problems of the consumer. Consumer organizations, consumer redressal, laws for consumer protection, consumer education- need, objectives and methods.

### **UNIT-X:RESEARCH ETHODOLOGY**

Objectives and types of research, selection of research problems. Research ethics. Research Design- types, Sampling methods, Tools of data collection, pilot study. Processing of data- coding, classification, editing. Presentation, interpretation and report writing.

## **PSYCHOLOGY**

**(PG - DEGREE STANDARD)**

**CODE NO: 273**

### **UNIT- I : INTRODUCTION**

Eastern and Western Approaches to psychology. Eastern: Buddhism, Taoism, Vedanta, Yoga, Transcendental Meditation. Stages of Ashtanga Yoga, Vipasana. Western approaches: Cognitive, Transpersonal, Existential & phenomenological.

### **UNIT- II : THEORIES OF PERSONALITY**

Freudian and Neo Freudian psychoanalytic theories, Kurt Lewin's field theory, Carl Rogers, Maslow, Skinner, Bandura, Allport, Cattell, Hans Eysenck, Robert McCrae and Paul Costa: The Five-Factor Model.

### **UNIT- III : CLINICAL AND HEALTH PSYCHOLOGY**

Personality Disorders, Anxiety Disorders, Schizophrenia, Depression, delusional disorders, Substance abuse disorders - Causes and Symptoms. Psychophysiological disorders and General Adaptation syndrome.

### **UNIT- IV : THERAPEUTIC PSYCHOLOGY**

Psychoanalytic oriented interventions: Dream interpretation & hypnosis, Behaviour therapy - Systematic Desensitization Procedures, Biofeedback, flooding, implosion. Aversion techniques. Cognitive - REBT, CBT, Self-feedback - Mischelbaum.

### **UNIT -V : GUIDANCE AND COUNSELLING**

Guidance and counselling: Definition. Differences between guidance, counselling and psychotherapy. Process of Counselling. Egan's Model of helping. Different Approaches to counselling: Directive, Non directive, eclectic and group counselling.

### **UNIT -VI : ASSESSMENT AND APPLICATIONS OF GUIDANCE AND COUNSELLING**

Assessments: Achievement, ability, aptitude, attitude, interest and personality. Application of guidance and counselling in family, educational, organisational, health and community settings.

### **UNIT -VII: PSYCHOLOGY FOR HUMAN RESOURCE DEVELOPMENT**

Human Resource Development: Definition and Process of HRD. Psychological assessment for recruitment and selection, performance appraisal. Job analysis: Job description and job specification.

**UNIT- VIII: TRAINING AND DEVELOPMENT**

Types of Training: on the job and off the job. Conflict Management, Stress management, Presentation and communication skills.

**UNIT- IX : RESEARCH METHODOLOGY**

Research process. Problem and hypothesis, Variables, Sampling- Probability and non - probability sampling Research design, Methods of data collection, Establishment of reliability and validity, Development of Norms. Qualitative research techniques. Report writing.

**UNIT- X : PSYCHOLOGICAL STATISTICS**

Characteristics of normal distribution, Parametric, Analysis of variance, - Students t test, Product moment correlation. Non - Parametric Tests: Chi-square and Rank order correlation, Multivariate Statistics: Multiple Regression, Factor Analysis, Discriminant function analysis, Path analysis.

**SOCIOLOGY****(P.G DEGREE STANDARD)****SUBJECT CODE: 344****UNIT- I: NATURE AND SCOPE OF SOCIOLOGY**

Meanings, Nature, Scope and Relevance of Sociology. Sociology and other Social Sciences: Anthropology, Psychology, Economics and History.

**UNIT- II: THEORETICAL PERSPECTIVES**

August Comte - Law of Three Stages, Social Statics and Dynamics, Herbert Spencer - Organic Analogy and Theory of Evolution, Emile Durkheim - Social Fact, Mechanical and Organic Solidarity, Suicide. Karl Marx - Economic Determinism, Class Struggle, Alienation, Pareto-System in Equilibrium, Logical and Non Logical Action, Circulation of Elites, Simmel - Theory of Social Conflict, Parsons - Human Action and Pattern Variables. Max Weber: Protestant Ethics, Authority and Bureaucracy.

**UNIT- III: SOCIALIZATION AND SOCIAL GROUPS**

Processes of Socialization, Associative and Dissociative Process, Agencies of Socializations: Family, Religion, Education and Media. Social Groups: Primary and Secondary Groups. In and Out Groups.

**UNIT- IV: SOCIAL STRATIFICATION AND SOCIAL CONTROL**

Nature and Types of Social Stratification, Forms of Social Stratification: Caste and Class. Social Mobility: Factors facilitating and hindering Social Mobility. Major Tribes in India, Socio - Economic and Cultural Aspects. Education, Development and Modernization.

**UNIT - V: RURAL AND TRIBAL SOCIETY**

Socio - Cultural dimensions of rural community, Rural social Problems: Poverty, indebtedness, illiteracy and unemployment. Rural Development Programmes: Distribution of Tribal Population - Problems of Tribes and Welfare and Constitutional Safeguards.

**UNIT- VI: URBAN SOCIETY**

Socio - Cultural dimensions of Urban Society, Urbanization - Problems of Urbanization - Slums, housing, transportation and health. Urban crimes and Juvenile delinquency, Alcoholism and Drug - Addiction. Strategies and Programmes of Urban Planning and Development.

**UNIT - VII: SOCIAL CHANGE**

Theories of Social Change - Evolutionary, Conflict and Cyclical, Factors and Processes of Social Change: Westernization, Modernization and Globalization, Legislative and Executive Measures in Social Change, Role of Non-Government Organizations in Social Change.

**UNIT - VIII: SOCIAL MOVEMENTS**

Characteristics and Types of Social Movement, Social Movements in India- Dravidian Movement, Backward Class Movement, Dalit Movement, Jharkhand Movement, Trade Union Movement, Women's Movement and Environment Movement. Social - Political Background of National Movement in India.

**UNIT - IX: SOCIAL DEMOGRAPHY**

Meanings Scope and Importance. Demographic Transition, Demographic Variables, Fertility, Mortality and Migration, Population Size, Growth, Composition and Distribution of population in India, India's National Population Policy.

**UNIT- X: SOCIAL PROBLEMS**

Meanings and Characteristics. Crimes Beggary. Child Labour, Child Abuse Street Children, Unemployment and under employment, Gender Injustice, Communal Violence and Corruption.

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**CHILD DEVELOPMENT**  
**SYLLABUS (P.G STANDARD)**

**Unit-I Introduction to growth and Development** – Scope of Child development – Meaning and Importance of different stages of growth and Development – Heredity and Environment Salient features of different stages in life – Factors influencing Growth and Development – principles of child development.

**Unit-II Prenatal Development** – Pregnancy – Signs and Symptoms – Prenatal development – Factors influencing prenatal development – Diet during Pregnancy – Preparation for parenthood.

**Unit-III Infancy** – Characteristics of Infancy – Care of new – born infant – Child rearing practices Development of infancy – Development Tasks – Sensory Development. Language Development, Physical and Motor Development and Cognitive growth – Concept Development.

**Unit-IV Childhood Stage** – Characteristics and Developmental tasks of Early Childhood – Physical, Emotional and Language Development – Socialization – Habits and Habit formation – Behavior problems – Needs of children – Hazards during Childhood – Play.

**Unit-V Adolescence** – Characteristics – Primary and Secondary Sex Characteristics – Physical, Emotional, Social and Cognitive Development – Identity Development – Disciplinary Techniques – Crisis – Relationship with Parents and others – Problems of Youth – Reproductive Health Care.

**Unit-VI Theories of Child Behaviour** – Language Theories – Emotional Theories – Learning Theories – Intellectual Theories – Psycho – Social Theories – Personality Theories – Moral Theories – Implications of Theories.

**Unit-VII Early Childhood Education** – Importance and Significance of Early Childhood Education – Need for Preschool Education – Problems of Early Childhood Education – Organizational and Administrative Setup – Curriculum and Programs – Pre-school Staffs and other Personnel – Records and Registers.

**Unit- VIII Child Welfare Programmes** – Social evils – Children in difficult situations – Child Abuse Street Children, Child Labour – National and International Child Welfare Programmes – Government Non-Governmental Programmes – Mobile Health care – Adoption – Foster care – Institutional Care – Children Act – Child Rights.

**Unit-IX Counseling and Physical & Mental Health** – The Counselor, their qualities, rule and skills – Areas of Guidance and Counselling – Personal, Marriage, Family, Child Educational, Vocational and Career Guidance – Child Guidance Clinics – Counseling in Disaster Management – mental Health Service – Health and Nutrition – Immunization Childhood illness.

**Unit-X Children with Special Needs** – Definition, Classifications and Educational Approaches of Mentally challenges, Learning Disabilities, Emotionally Disturbed, Visually Impaired Hearing Impaired and Physically Handicapped – Giftedness.

**FOOD AND NUTRITION – PG Standard****I. ADVANCED HUMAN PHYSIOLOGY****UNIT-1****General Physiology and Blood**

Blood – Composition – functions cell – functions.

**UNIT -2****Cardio vascular Physiology and Respiration**

Cardio vascular regulatory mechanism and homeostasis circulating body fluid – ECG interpretation, Angioplasty, Echocardiogram.

**Respiration**

Respiratory organs, Pulmonary function, vital capacity, gaseous transport in lungs and tissues, Respiratory regulation.

**UNIT- 3****Endocrine System and Gastrointestinal Physiology**

Pituitary, Thyroid, Pancreas, Adrenal medulla, Adrenal cortex – Enzymes – Hormones functions.

**UNIT - 4****Renal Physiology and Reproductive System**

Kidney – Renal Function

Skin – Function

Development of Reproductive organs

Reproductive Function – Male, Female – organs – Development of Foetus.

**UNIT – 5****Nerve Muscle Physiology, Central Nervous System and Special Senses.**

Function- types – Immune system antigen – Antibody reaction, lymphocyte – role – cell mediated immunity, innate & acquired immunity.

Special senses – Functions & Physiology

**BIOCHEMISTRY****UNIT-1****Carbohydrates:**

Classification, synthesis, structure, distribution & Characteristics Functions, digestion and absorption, metabolism.

**Energy:**

BMR, direct & indirect calorimetry, energy pathways.



**UNIT -2**

Lipids: Composition, synthesis, Structure, Classification, Characteristics & Functions, digestion & absorption, Metabolism.

**UNIT-3**

Proteins and amino acids – Nucleic acids – Nucleotides, Composition, Synthesis, Structure, Classification, Functions, Digestion & absorption, Metabolism genetic Code.

**UNIT-4**

Vitamins, Mineral and Water.

Types – Water soluble, Fat soluble absorption, Storage, Transportation, Functions, Requirement and dietary sources, Deficiency.  
Water – Electrolytes – acid base balance – PH.

**UNIT-5**

Antioxidants, Enzymes and Coenzymes

Hormones – Hemoglobin – Bilirubin

Inborn Errors of metabolism

Phenylketonuria – Tyrosinuria – Homocystinuria etc..

**III.FOOD SAFETY AND FOOD MICROBIOLOGY****Unit-1**

Microbiology of foods – Micro organisms important in food Microbiology – moulds, yeast, Bacteria, viruses, algae, Protozoa – Morphology Characteristics, classification etc.

Contamination of foods – from plants, fruits, animals, sewage, soil, water, air during handling and processing.

**UNIT-2**

Principles of Food Preparation

Asepsis removal of Microorganisms

Preservation; High temperature, Low temperature drying, by use of Food additives, radiation

Sterilization;

- i. Application of dry heat, burning, flaming and hot air oven.
- ii. Application of Moist heat – boiling, Pasteurization, steam Sterilizer & autoclave.

**Disinfection;**

Methods of disinfection, natural, Physical and Chemical.

**Unit-3**

Contamination, Preservation and Spoilage of foods.

Cereal grains and meals, flours, Bread, cakes etc.

Sugar & Sugar Products

Vegetables and fruits

Meat and Meat Products

Fish, Seafood, eggs, Poultry

Milk & Milk Products & Miscellaneous Foods.

Food fermentation

**UNIT – 4**

Food borne illness – Bacterial

Food borne Poisonings, injections, intoxicants – Non bacterial

Mycotoxins, Viruses, Rickettsia, Food borne parasites, seafood toxicants, poisoning by chemicals.

**Unit-5**

Food Sanitation and Hygiene

Bacteriology of water, Waste disposal, HACCP.

Health of Employees

Control Agencies – international, Federal, State agencies, and other NGOs

Allergy & Hypersensitivity

Allergy types like idiosyncrasies, allergy of infection

Contact dermatitis and drug allergy

Hypersensitivity – Definition – anaphylaxis and serum sickness.

**IV – Food facilities layout and Equipment and Food Service Management.****UNIT-I****Planning of Food Services:**

- a) Consideration of location, building interiors, financial restrictions and space limitations Layout design depending on the type of Food service.
- b) Installation of equipment – Planning according to different Food Service  
Noise Control – Ventilation – adequate water supply

**Functional Equipment:**

- a) Insulation materials, energy sources for operation of equipment.
- b) Design, selection, purchase, Principles of operation and care of major equipment small equipment and tools in the food service institution.

**UNIT-2**

- a) Kitchen Equipment
- b) For food storage (Coolers, refrigeration, walk in freezers, etc)
- c) Pre preparation Equipment
- d) Cooking utensils like steam boilers
- e) Food service equipments

- f) Dishwashing Equipments
- g) Cleaning equipment
  - a) Financial investment on physical facilities
- h) Maintenance & repairing equipment –AMC

### **UNIT-3**

- a) Review of different types of institutional Food Service operation – Classification based on function profit oriented & Service oriented.
- b) Planning and setting up a food service unit
- c) Food selecting purchasing, storage - Specification
- d) Meal planning – Menu selection, types of menu principles

### **UNIT-4**

- a) Quantity Food production – Planning & control – kitchen production
- b) Management and organization
- c) Leadership & its qualities, staff planning and Management
- d) Hygiene and sanitation and safety
- e) Fuels types – advantages - disadvantages

### **UNIT-5**

- a) Personal functions – work Productivity
- b) Entrepreneurship and Food service management

## **V. APPLIED STATISTICS AND RESEARCH METHODOLOGY**

### **UNIT-1**

- a) Fundamentals and diagrammatic graphic representation of data.  
Bar chart, pie diagram, Histogram, frequency polygon & curves, cumulative frequency curves – ogives etc.

#### Interpolation & Extrapolation

- b) Measures of Central tendency & variability – mean, median, mode.  
Measures of dispersion – Range, quartile deviation.  
Variance and standard deviation  
Relative measures of dispersion.  
Concepts of skewness and kurtosis.

### **UNIT-2**

- a) Probability concepts – rules and correlation methods.
- b) Association of attributes – meaning of correlation
- c) Tests of significance  
(Meaning and interpretation of coefficients)  
Shell hypotnesis – Calculation of 't' test – critical ratio – chi – Square.  
Testing hypotnesis – proportion & means, Large samples – Small samples.  
F distribution – testing and analysis of variance.

**UNIT-3**

- a) Basic concepts of Research methodology  
Theory, hypothesis, purpose & techniques
- b) Methods & tools of Research
- c) Collection of data.  
Quantitative & Qualitative study by different techniques

**UNIT-4**

- a) Sampling – Pilot study – concept of sampling – Relationship between sample size and standard error.
- b) Sample designs – methods of sampling etc.
- c) Classification and tabulation of data.

**UNIT-5**

- a) Experimental and Quasi experimental research – principles of experimental research varieties.
- b) Research Ethics  
ICMR guidelines for human subjects and animals.

**VI. Advances Food Science****UNIT-1**

- a) Cereals and Pulses  
Structure, composition, processing, nutritive value of raw and cooked products.
  - i. Rice and rice products, starch cookery.
  - ii. Wheat & Wheat products.
  - iii. Baked Products other cereal food – corn oats, ragi.
  - iv. Pulses – toxic constituents.
- b) Sugar & Jaggery  
Types, nutritive value, properties – Manufacture Sugar cookery.

**UNIT-2**

- a) Vegetables and fruits.
  - i. Composition – effect of cooking – on pigments, Polyphenols
  - ii. Vegetables and fruit products – picking processing, preservation and nutritive value analysis
  - iii. Changes during cooking
  - iv. Cooking methods
- b) Browning reactions in foods  
Enzymatic and non-enzymatic  
Enrichment & fortification – objectives & methods.

**UNIT-3**

## a) Fleshy Foods

Meat & meat products

Egg & Poultry

Fish & Seafood

Selecting, processing, preservation, transportation Composition and nutritive value, Changes during cooking and methods of hastening cooking.

**UNIT-4**

Nuts and oilseeds, Fats and Oils, Milk and Milk products.

Types, Composition, properties, processing

Toxin constituents and nutritive value

Changes during cooking & storage

Emulsions – role of fats in cookery

**UNIT-5**

Post Harvest technology

Bio fertilizers – its importance in enhancing nutritive value.

General methods of food grains, vegetables, fruits

Food Microbiology

Sources of contamination of foods.

**VII. Community Nutrition****UNIT-1**

Nutrition and National Development

Human life cycle – RDA for Indians.

National organizations – state Nutrition councils

and Beaureaus concerned with food and nutrition.

Health Education Boards, Social Welfare Boards and NGOs.

**UNIT-2**

Assessing the food and nutrition problems in the community – Dietary Survey, anthropometry, clinical Examinations. Laboratory examinations.

International & Indian organizations concerned with foods and nutrition.

**UNIT-3**

Prevalence of malnutrition in India – Environmental and Socio – economic factors related to malnutrition, family size and composition.

Etiology of Malnutrition – dietary patterns, food losses, Food waste, customs, habits, prejudice ignorance nutrition and infections.

**UNIT-4**

Measures to overcome malnutrition

Need for an integrated approach to solve the problems of nutrition

The package program of immunization, nutrition and education

Different feeding programs organized by the governments and NGOs specially for the vulnerable group like school children, pregnant women etc.

**UNIT-5**

Nutrition education for the Community-By different education programs & methods.

Principles of planning, executing and evaluating nutrition education programs.

National Nutritional policy and nutritional food distribution during calamities

Nutrition during special tasks, expeditions, emergency, space nutrition

Food Production and distribution.

**VIII. Nutrition through Life cycle****UNIT-1**

Role of nutrition – nutrients – nutritional needs importance of diet during life cycle.

Nutritional assessment – anthropometry biochemical, Clinical and dietary.

**UNIT-2**

a) Meal planning and Balanced diets.

b) Routine hospital diet – clear liquid, full fluid diet, soft diet, Normal diet & Restricted diet etc.

c) Enteral and parenteral nutrition

**UNIT-3**

Nutrition during pregnancy and lactation

Maternal malnutrition, other than normal cause like smoking & drinking.

Complication during pregnancy

Dietary modification

Importance of breast milk and advantages – its basic value

Nutrient requirements

**UNIT-4**

Nutrition for infants and pre school children.

Malnutrition – Vitamin A deficiency – anaemia – protein calorie malnutrition, protein energy malnutrition.

Socio economic issues related to malnutrition

Lactose intolerance, allergies and other factors influencing the nutritional status of the children.

- Immunization and nutrient requirements
- b) Nutrition for School age children and Adolescents.  
 School children  
 Iron deficiency anaemia, food patterns, prevention of nutrition and health problems, over weight, obesity, under weight, dental caries.  
 Adolescents, eating pattern, influence from peer groups, anorexia, bulimia, obesity  
 Nutrient requirements.

### **UNIT-5**

- a) Geriatric Nutrition

Eating Problems, Physiological and Psychological aspects influencing nutritional intake.  
 Diseased elderly, and invalids nutrition.  
 RDA and food selection as per the individuals.

## **IX Clinical and Therapeutic Nutrition**

### **UNIT-1**

Introduction to Diet Therapy & Therapeutic Nutrition  
 Adaptations of Therapeutic diets.

### **UNIT-2**

- a) Dietary Management in the diseases of GI tract (Stomach and Intestine)  
 b) Diet in fevers and infection – types.  
 c) Diet in disturbances of liver, gall bladder and pancreas.

### **UNIT-3**

- a) Diet in Diabetes Mellitus and cancer  
 b) Dietary Management in Renal diseases.

Types and etiology, Diagnosis, Treatment, dietary modification, Complications.

### **UNIT-4**

- a) Dietary Management in cardiovascular disease – hypertension, hyperlipidemia, ischemic heart disease, Atherosclerosis, congestive cardiac failure, Acute and Chronic heart disease.  
 b) Diet in surgical conditions and Burns.

### **UNIT-5**

- a) Malabsorption syndrome – Restricted diets – Lactose, Sucrose gluten etc.  
 b) Elimination diets – Diet in Allergy and Skin disorders.  
 c) Weight Management.  
 d) Sports Nutrition.

b) Nutrition Education  
-Principles, methods, Individual Counselling, group counseling, Family Counselling, Teaching aids.

## **X. Financial and Marketing Management**

### **UNIT-1**

Financing of business – concepts, objectives & functions  
Capital budgeting, cash budgets, break even analysis, Management of working Capital,  
Financing of catering units.

### **UNIT-2**

Financial accounting  
Single & Double entry book keeping  
Management accounting, decision making.

### **UNIT-3**

Pricing Policies  
Importance of pricing factors affecting, wholesale & retail pricing, Food and beverage costing and pricing.



**SOCIAL WORK**  
**(P.G DEGREE STANDARD)**  
**SUBJECT CODE: 348**

**UNIT- I: SOCIAL WORK PROFESSION**

Definition and meaning; historical evolution of Social Work – UK, USA and India; Growth of Social work as a Profession; Social work concepts, methods, fields; international and national professional bodies/forums; status and problems of the profession in India.

Social work ideologies: socialism, marxism, equality, equity, social justice and humanitarianism; Indian socio-cultural and religious thought; purusharthas; Social reforms and movements; Gandhian Social work; contributions of religions-Buddhism, Jainism, Islam and Christianity; approaches-welfare to rights based approach. Philosophy of Social work Profession – values, beliefs, principles and code of ethics; Social work theories; International Social work – basic concepts, Global Agenda and Global standards for practice; Human Rights and Social work; Constitutional safeguards; India as a welfare state; role and contributions of voluntary organizations, INGOs, NGOs and CSOs.

**UNIT- II: FUNDAMENTALS OF SOCIOLOGY AND PSYCHOLOGY**

**Sociology:** Definition, meaning, scope and relevance to Social work; basic sociological concepts: Society-meaning, definition and types, structure, features; social institutions; concept of social system and sub system, classification of social systems, culture: concept, characteristics, social stratification, social processes-social control, social change in India, social movements, crime and delinquency; social problems-poverty, inequality, casteism, causes and consequences.

**Psychology:** Definition, meaning and scope, Psychology and Social work; lifespan phases of human growth and development, (Erik Erikson and Freud) needs, tasks and challenges, influence of hereditary and environment; psychological processes for understanding behaviour, intelligence, sensation, emotions, learning, memory, attitudes, behaviour, perceptions and prejudices; life events and their impact on behaviour; mental health-minor and major mental disorders, community mental health.

**UNIT- III: DIRECT METHODS OF SOCIAL WORK PRACTICE – I**

**Social Case Work:** Historical development, CW as a direct method of Social work, definition and meaning, philosophy, values, principles, skills, components of social case work, case work relationship; empathy, skills in building relationship, transference and counter transference; difference between casework, counselling and psychotherapy; the helping process, approaches: Skills-referrals, interview, observation, collateral contact; types of recording, application of CW in various settings; limitations of the method.

**Social Group Work:** Definition of group, types, and characteristics of groups; Historical development of GW as a direct method in Social Work, definition and meaning, purpose, objectives, values, skills, principles of GW, phases of group work process-group processes and dynamics-stages in group development, the influence of new comers on group processes, isolation, rejection in groups, group-bond, sub groups, clique, dyad, triad, group norms, group membership, group cohesiveness, group pressure, group morale, leadership, team building, decision making, problem solving, conflict management, communication; role clarity in a group; use of sociometry; Group work models; social goals model, remedial model, reciprocal model, Application in various settings; types of recording in Group work.

#### **UNIT-IV: DIRECT METHODS OF SOCIAL WORK PRACTICE – II**

**Community Organization:** Definition, philosophy, principles, goals, scope of CO; community as a social system; subsystems; types and characteristics community power structure, community dynamics, evolution of CO as a direct method in social work, community organization models: Rothman-social planning, locality development and social action; Murray Ross-general content, specific content and process objective; process and skills in community organisation.

**Social Action:** Concept, definition, aims and objectives, scope, social action as a method in social work, paradigm of five elements: causes, change agent, change target, change channels, change strategy, strategies and tactics for social action: channels topology; skills of a social activist, models and approaches to social action: Paulo Freire- Mahatma Gandhi, Martin Luther King, Saul Alinsky, social action movements in India - Narmada Bachao Andolan, Chipko movement, Dalit movements, women's movements.

#### **UNIT- V: INDIRECT METHODS OF SOCIAL WORK PRACTICE- I**

**Social Work Research:** Definition, objectives, scope, characteristics and functions – scientific method, concepts, variables, types of research, research as an indirect method of social work, qualitative and quantitative research, problem formulation: formulation of hypotheses; typology of research designs; ethical issues; sampling: definition, types, techniques: probability and non-probability sampling; sampling errors; data sources; types of data-nominal, ordinal, discrete numeric, continuous, sources of data; methods, tools and techniques of data collection, classification and coding, tabulation, analysis and interpretation – research reporting.

**Statistics:** Meaning, definition, limitations and uses- frequency distribution - construction of frequency tables – diagrammatic and graphical representation; measures of central tendency – mean, median, mode, measures of dispersion- standard deviation, variance, quartile range, measures of correlation and regression; tests of significance: hypothesis testing; Type I & Type II errors, Level of confidence, degrees of freedom Chi square, 't' test.reliability and validity methods; Scales: Rating scales, Attitude scales – Likert, Thurstone, Guttman; using software for data analysis; Tools and

techniques in qualitative data collection: Observation, focus group discussion, unstructured in-depth Interview; iteration, triangulation and saturation.

### **UNIT- VI: INDIRECT METHODS OF SOCIAL WORK PRACTICE- II**

**Social Work Administration:** Concept, definition, characteristics, Social work Administration as an indirect method of Social work; Organizational structure, boards and committees: executive: functions and qualities - administrative process: policy formation, planning, decision making, co-ordination, communication; Human Resource Management: selection of staff, orientation, placement, service conditions, promotions, discipline, welfare programmes for staff -financial administration: budgeting, accounting, bookkeeping and fund-raising-office administration: office management and maintenance of records-supervision, evaluation and public relations; Central Social Welfare Board, State Social Welfare Board, Nehru Yuvak Kendra – Ministry, Department of Social Welfare; Role of Voluntary Agencies , Board, Trustee, Committees, Executives –Roles and Functions; Laws related to NGOs; Registration of organizations: Tamil Nadu Societies Registration Act 1975, Trust Act 2001, Foreign Contribution (Regulation) Act 1976, Tax Exemptions and Foreign grants; Role and contribution of International funding organizations; Project and Project Cycle Management; Project Proposal Writing, Overview of Logical Framework Analysis; Types Steps, Format, Fund-Raising (Types, Methods, Skills), Monitoring and Evaluation of Projects.

### **UNIT- VII: SPECIALIZATION IN HEALTH CARE AND SOCIAL WORK**

Health-definition and concept, health care approaches: patient as a person, psychosomatic approach, holistic approach. problem assessment: rehabilitation, definition, types and principles, levels- prevention, promotion and tertiary; rehabilitation therapies; gender dimensions in disability, rehabilitation in various settings – UN convention on the rights of persons with disabilities; policies and programmes community based rehabilitation.

Community health; definition, health indicators, disease, sickness/illness, definition of public health, changing concepts, primary health care: preventive, curative and social medicine. wellbeing, HDI, communicable and non-communicable diseases: causes, prevention and treatment of communicable and non – communicable diseases; primary health care and health education skills of social worker in health care.

Concept of mental health, magnitude of mental health problems, changing trends in mental health care; psychiatric assessment: common mental disorders; mental health: definition, history and scope of psychiatric social work, changing perspectives of psychiatric social work, application of methods psychiatric settings-theory and models; psycho analytical, ps ycho social, transactional analysis, family therapy, crisis intervention, behaviour therapy, rational emotive therapy, group therapy & strengths based approach; counselling: definition, principles, goals, approaches and techniques.

## **UNIT- VIII: SPECIALIZATION IN RURAL AND URBAN COMMUNITY DEVELOPMENT**

Rural Community development: definition, philosophy, objectives, scope; history of RCD; Rural development: need and importance, approaches, power structure, caste and untouchability, poverty and indebtedness; land reform measures, agricultural laborers, marginal and small farmers; watershed management; Development Administration: Organization and administration of rural, tribal and urban development from block to National levels. Panchayat systems and local self- government in India; rural development programmes and policies; implementation strategies, tribal communities: Adivasis, Indigenous, aborigines; tribal social systems and structures; types, characteristics, tribal social systems and structures; belief systems, culture- indigenous vs. mainstream.

Urban Community development: definition, philosophy and objectives, history of UCD, scope; Slums: definition, causes, characteristics, functions, classification, approaches, theories and culture of slums; in and out migration, urbanization, urbanism: theories of urbanization, Unorganized/Informal sectors ; urban services and urban deficiencies; 74th amendment and salient features of Nagarpalika Act; structure and functions of Urban Development Agencies: Urban Development Programmes: role of community development worker; rural, tribal and urban policies; tools and techniques for development practice; application of social work methods in rural, tribal and urban communities.

## **UNIT- IX: SPECIALIZATION IN FAMILY SOCIAL WORK**

Family: Definition, concept, characteristics, types, functions, family patterns; marriage: forms, functions, changing situations in marriage, challenges, separation and divorce; assessment of family needs; laws on family and marriage; Aging: Definition, longevity and physical health, mental and emotional health, Ill- health, disabilities; Interventions with older persons; stress management of caregivers, government and non-governmental services, institutional and non- institutional; Policies and programmes for senior citizens, hospice & palliative care. Youth: Definition, demographic profile; Youth Policy – 2014; needs of youth; impact of westernization, modernization, urbanization and globalization; problems of youth; programmes for rural/urban youth, career counselling, Organisations and Movements in India.

Women: Sex and gender, gender identity; gender stratification; sex ratio in India; feminism: concept, meaning and definition and types; empowerment: concept, definition, types; GDI, GEM; Constitutional provisions and protective laws for women; special initiatives and programmes for women, national and state commissions;

Convention on elimination of all forms of discrimination against women and girls (CEDAW ) 1982, micro finance and self-help groups (SHGs), challenges of Indian women.

Children: Demography; Constitutional safeguards; UNCRC, Post 2015 Development Agenda; street children, child labour, child abuse, child trafficking, child prostitution, disabled children, the girl child; child services: mechanisms, National commission for protection of child rights/ State commission for protection of child rights; Approaches; Adoption – sponsorship and foster care; application of Social work methods in family setting.

### **UNIT-X: SPECIALIZATION IN INDUSTRIAL RELATIONS, LABOUR WELFARE AND SOCIAL WORK**

Concept, characteristics, Industrial Relations at plant and shop floor level, Industrial conflicts: concepts of industrial peace; cause and consequence of industrial conflict, strikes and lock-outs; conflict resolution, mediation, conciliation: arbitration and adjudication; statutory and non-statutory machinery for prevention and settlement of disputes. Trade Unions: Trade unionism in India, role in Industrial relations .

Labour Welfare: Concept, definition, philosophies, need, objectives, principles, scope and limitations of labour welfare; Historical development of labour welfare in India. Statutory and Non-Statutory Welfare Provisions: Industrial Counseling - Pre-retirement, Quality of work life. Social security, Social security measures; Standardization, Wage policy, Wage incentives, bonus and profit sharing. Collective Bargaining: Meaning, goal, phases, pre-requisites, principles, strategies and negotiation skills, factors influencing collective bargaining, Role of Social worker in industrial setting.

Concept and functions of HR system; HRM, HRD & HR; evolution, Asian trends; HRD system and sub-systems; elements, goals, importance of HRD in Industry; 360

Degree feedback; leadership and leadership development; mentors & modeling;

Organizational commitment.

**REHABILITATION SCIENCE  
(PG Standard)**

**Unit-I** : Introduction to disability – Definitions (Impairment, Disability, Handicap), classification of disabilities (Physical, sensory, cognitive behavioural), misconceptions about the disabled, incidence and prevalence, models of education (Special, integrated, inclusion), models of rehabilitation (historical perspectives, institution based and community based rehabilitation, home based), family involvement) and Rehabilitation Counselling.

**Unit-II**: Visual Impairment – Definition, signs and symptoms, causes characteristics, prevention, assessment, training, special needs intervention and rehabilitation

**Unit-III**:Hearing Impairment – Definition, signs and symptoms, classification, causes, characteristics, prevention, assessment, intervention communication approaches and rehabilitation

**Unit IV**: Mental Retardation – Definition, signs and symptoms, classification causes, characteristics, prevention, assessment, training, intervention behavior modification and rehabilitation.

**Unit-V**: Locomotor Disability – Definition, signs and symptoms, causes, characteristics, prevention, assessment, training, intervention, aids and appliances and rehabilitation

**Unit-VI**: Mental illness – Meaning, Scope Definition, History/causes and characteristics, Major patterns of maladaptive behavior (Schizophrenia, psychoneurotic disorder, personality disorder, sexual deviation) common patterns of abnormal behavior (sociopathic disorder, alcoholism and drug abuse, criminal behavior and delinquency, psycho somatic disorder, therapeutic intervention

**Unit-VII**: Cerebral Palsy - Definition, signs and symptoms, classification, causes, characteristics, prevention, assessment, intervention and rehabilitation, Associated Problems, Developing independence in self care activities and mobility, aids and appliances.

**Unit-VIII**: Autism & ADHD – Definition, signs and symptoms, causes, characteristics, prevention, assessment, training, special needs, intervention and rehabilitation.

**Unit-IX**: Multiple Disabilities – Definition, signs and symptoms, impact, causes, characteristics, prevention, assessment, training, intervention and rehabilitation.

**Unit-X**: Rights, Legislations and Government Initiatives – Laws (PWD Act., National Trust Act, Mental Health Act, RCI Act), National Policy for the Disabled, UN Initiatives (Rights of children, standard rules, UNCRPD). Umbrella scheme for the disabled, schemes by national trust act, schemes for economic assistance, concessions for the disabled.

**Nutrition & Dietetics****DEGREE STANDARD****Code No.087****(For the Post of Child Development Project Officer)**

**UNIT- I** a) Food groups - basic 4, 5 and 7 and functional Food groups b) Importance of cooking - Methods - Advantages and disadvantages - physio - chemical changes.

**UNIT- II** Structure, Composition, nutritive value, selection, processing methods, principles of cooking. i) Cereals ii) Pulses iii) Vegetables and fruits

**UNIT -III** Structure, composition, Nutritive value, selection, storage, quality, kinds, methods of processing, uses in cookery i) Milk and Milk products ii) Fleshy foods - Meat, Poultry, fish and organ meats iii) Eggs

**UNIT- IV** a) Beverages - classification - nutritive value and role in diet - Methods of preparation b) Spices and condiments - Commonly used 'Spices and condiments - uses and abuses'.

**UNIT- V** a) Fats and oils : - Composition, Nutritive value, properties, storage, processing, factors affecting absorption, care during cooking. b) Sugar and Sugar cookery :- Types, Nutritive value, stages in sugar cookery and application in the preparation of Indian sweets.

**UNIT- VI** Food preservation - Importance of preservation. i) Food spoilage - Types, causes - principles of food preservation. ii) Methods - a) by using sugar iii) Drying and dehydration iv) Refrigeration and freezing v) Canning vi) Pickling vii) Chemical preservatives.

**UNIT -VII** a) ENERGY:- Energy content of foods, BMR and total energy requirements. b) Carbohydrates, fats and proteins - classification, functions, digestion, absorption and metabolism, requirements, sources and effects of deficiency.

**UNIT-VIII** a) Vitamins - water and fat soluble vitamins; chemistry, properties, functions, deficiency and toxicity. b) Minerals - Macro and Micro minerals - occurrence, functions, absorption, Sources, requirements, utilization, deficiency and toxicity

**UNIT- IX** a) Importance and principles of meal planning based on 5 food groups at different income level. b) ICMR Nutritional requirements for different age groups - Infancy, Children, Adolescents, Adults and the aged and Pregnancy and lactation.

**UNIT- X** a) Nutritional assessment - Methods - Advantages and disadvantages. b) Malnutrition - causes, methods to alleviate malnutrition - importance of nutrition education. c) Feeding programmes in action in State.

**UNIT- XI** a) Diet Therapy - Definition, concept, principle, classification of therapeutic diets, feeding the patient. b) Dietitian - Role, qualities, types c) Diet counselling.

**UNIT- XII** Etiology, signs and symptoms, dietary modifications and counselling measures for a) Gastro intestinal

### **Nutrition & Dietetics**

disorders - Peptic ulcer, diarrhea, constipation, malabsorption syndrome. b) Liver and Gall Bladder: Hepatitis and cirrhosis, hepatic coma, cholelithiasis and cholecystitis.

c) Pancreas: Pancreatitis and diabetes mellitus

**UNIT- XIII** Etiology, signs and symptoms dietary modifications and counselling measures for a) Obesity and underweight b) Cardio-vascular diseases: Hypertension, atherosclerosis, Ischemic heart diseases, cardiac failure c) Renal disorders - nephritis, Nephrosis, Uremia and Renal failure, Renal Stones.

**UNIT -XIV** a) Diet in allergies, causes, tests, elimination diets. b) Pre-Operative and post operative diets. c) Cancer - causes, dietary modifications, different types of therapy.

**UNIT- XV** a) Types of catering - Commercial, transport, industrial and Hospital b) Quantity cookery - Selection, Purchasing and storage, standardisation of recipe, portion control, utilisation of left over food.

**UNIT -XVI** a) Organisation - Types and principles, organisational structure. b) Management - Principles, techniques and leadership and managerial abilities - Tools of management.

**UNIT-XVII** Personnel Management - Selection, induction, training and supervision, motivation and performance appraisal, legal aspects of catering.

**UNIT-XVIII** a) Cost control - Principles and methods of food cost control b) Sanitation and safety; Significance, health care measures - in preparation and service and for service personnel, safety measures in food service.

**UNIT- XIX** a) Art in food service - Design, selection, structural and decorative, Elements and principles of design, their application in food service institutions. b) Colour - Colour schemes. c) Flower arrangements - Types and styles d) Table service - Styles - Indian, Western and oriental.

**UNIT- XX** a) Food plant - Layout, different work centres, Lighting, ventilation and Pest control. b) Equipment i) Major and Minor equipments, for food storage, preparation, service and cleaning. ii) Their selection, arrangement, use, care and maintenance.



**Home Science – Degree Standard      Code No.342****(For the Post of Child Development Project Officer)****1. FOOD**

Food pyramid, functions, classification, conservation of nutrients, cooking methods, meal planning for different age & income groups, food safety, food adulteration and food laws, food spoilage and preservation of foods. Weaning foods – meaning, importance and preparation.

**2. NUTRITION**

Nutrition – Definition of nutrients, components, requirements, metabolism – carbohydrate, protein and fat, nutritional assessment of the community and dietetics - normal and therapeutic nutrition, nutritional deficiency. Nutrition and health intervention programmes in India.

**3. RESOURCE MANAGEMENT**

Resource Management: Concept of home management, systems approach to management, care of household equipment, classification of resources, - human and material - time, energy, and money management, principles of interior design, work simplification.

**4 INSTITUTIONAL MANAGEMENT**

Concept of community resource management, consumer education, management of hospitality - hospital, hotel, restaurant ; Management of social institutions - family, child and geriatric care, Management of special institutions– physically, mentally and socially challenged.

**5. HUMAN DEVELOPMENT**

Principles of development, lifespan approach, growth monitoring, child rearing and socialization practices. Developmental tasks and problems and disabilities during childhood, child study methods. Population education, Sex education. Habit formation, behaviour problems and discipline.

**6. RELATIONSHIPS**

Early stimulation, activities during infancy, early childhood, childhood and adolescence, child welfare programmes. Structure of family and its functions. Family crises, Guidance and counseling, Schools and community relationships. Family and legal issues.

**7. FUNDAMENTALS OF TEXTILES**

Principles of clothing construction, factors in selection of fabrics and garments, identification and properties of fibres, care and maintenance of garments, principles of textile designing, stain removal, dyeing , printing and finishing of fabrics; socio - psychological aspects of clothing.

**8.EXTENSION**

Concept of Extension – Principles and scope; formal, non-formal and vocational education; programme planning for women and children and transaction, elements of communications, methods of communication; ICDS programme and role of different functionaries.

**9.DEVELOPMENT**

Concept of Development, early experiments in rural development; national programmes for women and children; orientation to problems and issues in rural and urban development. Community based Institutions – Village Panchayats, Schools, and Primary Health Centres; Science and Technology for rural development; Health promotion, environmental sanitation, waste disposal and recycling.

**10. RESEARCH**

Research in Social Science – concept and methods; Project proposal preparation, tools of research, concept of evaluation, steps in evaluation and report writing.

**PAPER-II**  
**Degree Standard**

**GENERAL STUDIES**

**Unit-I General science :**

**Physics** Universe-General Scientific laws-Scientific instruments-Inventions and discoveries-National scientific laboratories-Science glossary-Mechanics and properties of matter-Physical quantities, standards and units-Force, motion and energy-Electricity and Magnetism, Electronics and Communication -Heat, light and sound-Atomic and nuclear physics-Solid State Physics - Spectroscopy-Geophysics - Astronomy and space science

**Chemistry** Elements and Compounds-Acids, bases and salts-Oxidation and reduction-Chemistry of ores and metals-Carbon, nitrogen and their compounds-Fertilizers, pesticides, insecticides-Biochemistry and biotechnology-Electrochemistry-Polymers and plastics

**Botany**-Main Concepts of life science-The cell-basic unit of life-Classification of living organism-Nutrition and dietetics-Respiration-Excretion of metabolic waste-Bio-communication.

**Zoology**-Blood and blood circulation-Endocrine system-Reproductive system-Genetics the science of heredity-Environment, ecology, health and hygiene, Bio-diversity and its conservation-Human diseases-Communicable diseases and non-communicable diseases- prevention and remedies- Alcoholism and drug abuse-Animals, plants and human life

**Unit- II. Current Events**

**History**--Latest diary of events – National--National symbols-Profile of States-Defence, national security and terrorism-World organizations-pacts and summits-Eminent persons & places in news-Sports & games-Books & authors -Awards & honours-Cultural panorama-Latest historical events-- India and its neighbours-- Latest terminology- Appointments-who is who?

**Political Science**-1. India's foreign policy-2. Latest court verdicts – public opinion-3. Problems in conduct of public elections-4. Political parties and political system in India-5. Public awareness & General administration-6. Role of Voluntary organizations & Govt.,-7. Welfare oriented govt. schemes, their utility

**Geography** Geographical landmarks-Policy on environment and ecology—

**Economics**--Current socio-economic problems-New economic policy & govt. sector

**Science**-Latest inventions on science & technology-Latest discoveries in Health Science-Mass media & communication.

### **Unit-III. Geography**

Earth and Universe-Solar system-Atmosphere hydrosphere, lithosphere-Monsoon, rainfall, weather and climate-Water resources --- rivers in India-Soil, minerals & natural resources-Natural vegetation-Forest & wildlife-Agricultural pattern, livestock & fisheries-Transport including Surface transport & communication-Social geography – population-density and distribution-Natural calamities – disaster management-Climate change - impact and consequences - mitigation measures-Pollution Control.

### **Unit-IV. History and culture of India**

Pre-historic events--Indus valley civilization-Vedic, Aryan and Sangam age-Maurya dynasty-Buddhism and Jainism-Guptas, Delhi Sultans, Mughals and Marathas-Age of Vijayanagaram and the bahmanis-South Indian history-Culture and Heritage of Tamil people-Advent of European invasion-Expansion and consolidation of British rule-Effect of British rule on socio-economic factors-Social reforms and religious movements-India since independence-Characteristics of Indian culture-Unity in diversity –race, colour, language, custom-India-as secular state-Organizations for fine arts, dance, drama, music-Growth of rationalist, Dravidian movement in TN-Political parties and populist schemes- Prominent personalities in the various spheres – Arts, Science, literature and Philosophy – Mother Teresa, Swami Vivekananda, PanditRavishankar , M.S.Subbulakshmi, Rukmani Arundel and J.Krishnamoorthy etc.

### **Unit-V Indian Polity**

Constitution of India-. Preamble to the constitution- Salient features of constitution- Union, State and territory- Citizenship-rights amend duties-Fundamental rights- Fundamental duties- Human rights charter- Union legislature – Parliament- State executive- State Legislature – assembly- Status of Jammu & Kashmir- Local government – panchayat raj – Tamil Nadu- Judiciary in India – Rule of law/Due process of law- Indian federalism – center – state relations-. Emergency provisions- Civil services in India- Administrative challenges in a welfare state- Complexities of district administration- Elections - Election Commission Union and State. Official language and Schedule-VIII- Amendments to constitution- Schedules to constitution-. Administrative reforms & tribunals-Corruption in public life- Anti-corruption measures – Central Vigilance Commission, lok-adalats, Ombudsman, - Comptroller and Auditor General of India- Right to information - Central and State Commission- Empowerment of women- Voluntary organizations and public grievances Redressal- Consumer protection forms

### **Unit- VI. Indian economy**

Nature of Indian economy-Need for economic planning-Five-year plan models-an assessment-Land reforms & agriculture-Application of science in agriculture Industrial growth-Capital formation and investment-Role of public sector & disinvestment-Development of infrastructure- National income- Public finance & fiscal policy- Price policy & public distribution- Banking, money & monetary

policy- Role of Foreign Direct Investment (FDI)- WTO-globalization & privatization- Rural welfare oriented programmes- Social sector problems – population, education, health, employment, poverty-HRD – sustainable economic growth- Economic trends in Tamil Nadu -Energy Different sources and development- Finance Commission -Planning Commission- National Development Council

### **Unit-VII. Indian national movement**

National renaissance-Early uprising against British rule-1857 Revolt- Indian National Congress-Emergence of national leaders-Gandhi, Nehru, Tagore, Nethaji -Growth of militant movements -Different modes of agitations-Era of different Acts & Pacts-World war & final phase struggle-Communalism led to partition-Role of Tamil Nadu in freedom struggle - Rajaji, VOC, Periyar, Bharathiar& Others-Birth of political parties /political system in India since independence

### **Unit-VIII. APTITUDE AND MENTAL ABILITY TESTS**

Conversion of information to data-Collection, compilation and presentation of data - Tables, graphs, diagrams-Parametric representation of data-Analytical interpretation of data -Simplification-Percentage-Highest Common Factor (HCF)-Lowest Common Multiple (LCM)-Ratio and Proportion-Simple interest-Compound interest-Area-Volume-Time and Work-Behavioral ability -Basic terms, Communications in information technology-Application of Information and Communication Technology (ICT)- Decision making and problem solving-Logical Reasoning-Puzzles-Dice-Visual Reasoning-Alpha numeric Reasoning-Number Series-Logical Number/Alphabetical/Diagrammatic Sequences-

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