

## CCS UNIVERSITY –SYLLABUS

### B.Sc.(Home Science)

S. No.	<u>Ist Semester</u>	Th.	Pr.	Total
1	ENGLISH LANGUAGE & COMMUNICATION SKILLS	50	-	50
2	COMMUNICATION & INSTRUCTIONAL TECHNOLOGY	50	50	100
3	INTRODUCTION TO HUMAN DEVELOPMENT	50	25	75
4	FOOD SCIENCE	50	50	100
5	HUMAN PHYSIOLOGY	50	25	75
6	COMPUTER BASICS	50	50	100
7	ENVIRONMENTAL STUDIES	-	-	-
	<b>Total</b>	<b>300</b>	<b>200</b>	<b>500</b>
	<u>IInd Semester</u>			
1	INTRODUCTION TO TEXTILES	50	50	100
2	<i>INTRODUCTION TO RESOURCE MANAGEMENT</i>	50	50	100
3	APPLIED PHYSICS	50	25	75
4	APPLIED CHEMISTRY	50	25	75
5	SANITATION & HYGIENE	50	-	50
6	MEAL MANAGEMENT	50	50	100
	<b>Total</b>	<b>300</b>	<b>200</b>	<b>500</b>

<b>S.No.</b>	<b><u>IIIrd Semester</u></b>	<b>Th.</b>	<b>Pr.</b>	<b>Total</b>
<b>1</b>	<b>FAMILY DYNAMICS</b>	<b>50</b>	<b>-</b>	<b>50</b>
<b>2</b>	<b>HUMAN DEVELOPMENT II</b>	<b>50</b>		<b>50</b>
<b>3</b>	<b>CONSUMER ECONOMICS</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>4</b>	<b>NUTRITIONAL BIOCHEMISTRY</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>5</b>	<b>LAUNDRY SCIENCE &amp; FINISHING OF FABRICS</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>6</b>	<b>APPLIED LIFE SCIENCE- I</b>	<b>50</b>	<b>50</b>	<b>100</b>
	<b>Total</b>	<b>300</b>	<b>200</b>	<b>500</b>
	<b><u>IVth Semester</u></b>			
<b>1</b>	<b>INTRODUCTION TO CLOTHING CONSTRUCTION</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>2</b>	<b>HOUSEHOLD EQUIPMENT</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>3</b>	<b>FOOD MICROBIOLOGY</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>4</b>	<b>APPLIED LIFE SCIENCE II</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>5</b>	<b>HUMAN DEVELOPMENT- III</b>	<b>50</b>	<b>-</b>	<b>50</b>
<b>6</b>	<b>COMMUNITY NUTRITION</b>	<b>50</b>	<b>-</b>	<b>50</b>
	<b>Total</b>	<b>300</b>	<b>200</b>	<b>500</b>

<b>S.No.</b>	<b><u>Vth Semester</u></b>	<b>Th.</b>	<b>Pr.</b>	<b>Total</b>
<b>1</b>	<b>THERAPEUTIC NUTRITION</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>2</b>	<b>HUMAN DEVELOPMENT - IV</b>	<b>50</b>	<b>-</b>	<b>50</b>
<b>3</b>	<b>COMMUNITY DEVELOPMENT</b>	<b>50</b>	<b>-</b>	<b>50</b>
<b>4</b>	<b>FAMILY HOUSING</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>5</b>	<b>ADVANCED CLOTHING CONSTRUCTION</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>6</b>	<b>NURSERY SCHOOL EDUCATION</b>	<b>50</b>	<b>50</b>	<b>100</b>
	<b>Total</b>	<b>300</b>	<b>200</b>	<b>500</b>
	<b><u>VIth Semester</u></b>			
<b>1</b>	<b>TEXTILE DESIGNING</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>2</b>	<b>INTERIOR DECORATION AND ART PRINCIPLES</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>3</b>	<b>FOOD PRESERVATION AND PROTECTION</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>4</b>	<b>ENTREPRENEURSHIP AND MOTIVATION</b>	<b>50</b>	<b>50</b>	<b>100</b>
<b>5</b>	<b>EXTENSION TRAINING AND MANAGEMENT</b>	<b>50</b>	<b>50</b>	<b>50</b>
	<b>Total</b>	<b>300</b>	<b>200</b>	<b>500</b>
	<b>Grand Total</b>	<b>1750</b>	<b>1250</b>	<b>3000</b>

## **SEMESTER- I**

### **PAPER I ENGLISH LANGUAGE & COMMUNICATION SKILLS**

**M.M. 50**

#### **Unit -1 - Introduction to Communication**

- A) What is communication?
- B) The importance of effective communication.
- C) Principles of communication – clarity, completeness, conciseness, consideration, courtesy, correctness.

#### **Unit - 2 - Aids to correct writing**

- A) Nouns, Pronouns , Adjectives , Articles , Verbs , Adverbs , Prepositions , Conjunctions , Punctuation , Vocabulary
- B) Synonyms, Antonyms , one word substitution , Idioms & Phrases.

#### **Unit - 3**

***Letter writing*** – layout of letter, ***Types of Letter*** - Business Letter, Application, Letters.

#### **Unit - 4**

***Report writing*** – Importance, types of reports, parts of reports, preparing the report.

#### **Unit - 5 Essay writing**

#### **Unit - 6 Precis writing**

**PAPER II - COMMUNICATION & INSTRUCTIONAL TECHNOLOGY**  
**M.M.50**

**Unit - 1**

Origin, Meaning, Definition, Functions & Problems of Communication.

**Unit - 2 - Types of Communication**

- a- Intra Personal
- b- Interpersonal
- c- Group
- d- Organizational Public
- e- Mass

**Unit - 3 - Communication Receiver Relationship**

- a- Rapport
- b- Empathy
- c- Perception
- d- Persuasion
- e- Credibility
- f- Motivation
- g-

**Unit - 4 - Audio - Visual Aids**

- A) Different types of audio-visual aids
- B) Their meaning definition & advantage
- C) Limitation & use in communication

***Practical***

***M.M. 50***

- A) To select, plan, prepare and use different audio-visual aids.
- B) To develop ability to prepare and present individualized and group instruction.
- C) To familiarize the students with different types of accessories used for preparing

communication media.

**PAPER III - INTRODUCTION TO HUMAN DEVELOPMENT**

**M.M.- 75**

***Unit - 1 - Human Development***

- A) Definition and importance of Human Development
- B) Human Development and allied fields
- C) Scope of Human Development

***Unit - 2 - Growth and Development***

- A) Concept and principles of development
- B) Difference between growth and development
- C) Factors affecting growth and human development.

***Unit - 3 - Determinants of Development***

- A) Heredity and Environment
- B) Maturity and Learning

**Unit - 4 - Developmental Stages**

- A) Menstrual Cycle and Fertilization
- B) Prenatal development stages and sub stages.
- C) Factors affecting prenatal development

**Unit - 5 - Care of the Newborn**

- A) Reflexes of the newborn and neonatal assessment
- B) IUGR( IntraUterine Growth Retardation) and Premature babies
- C) Immunization of the newborn.
- D) Methods of child study

INTERNAL MARKS – 25 MM

**PAPER IV - FOOD SCIENCE MM- 50**

**Unit - 1 - Foods**

**a- Definition and Objectives in the Study of Foods.**

**b- Relation to Nutrition and Function of Foods.**

**Unit -II**

***Basic Food Groups : Composition and nutritive value***

- A) Cereals
- B) Pulses
- C) Vegetables and fruits
- D) Milk and milk products.
- E) Meat, fish, poultry and eggs.
- F) Nuts and oils.

G) Spices and condiments.

H) Sugar and jaggery.

### **Unit – III**

#### ***Cooking***

A) Various methods and Principles of cooking various foods – (boiling, steaming etc.)

B) Processing of food stuffs before cooking.

C) Effect on nutritive and other values of foods during cooking

### **Unit – IV**

#### **Improving Nutritional Quality of Foods**

A) Germination

B) Fermentation

C) Supplementation

D) Substitution

E) Fortification and enrichment

#### ***Practical*            MM- 50 M**

A) Basic Food Preparation.

a) Rice and pulse preparation.

b) Vegetable preparation.

c) Suji and wheat flour preparation.

d) Milk preparation



- e) Soups
  - f) Bakery preparation
  - g) Beverages
  - h) Egg, fish and meat preparation
- B) Standardization of weights and measures of various food items.

**PAPER V - HUMAN PHYSIOLOGY**

**MM- 50**

**Unit - 1 - Basic Unit of Human Body-Cell**

- A) Structure of cell
- B) Structure of tissues and types
- C) Functions of tissues

**Unit - 2 - Elementary Anatomy, Physiology & Functions of -**

- A) *The Skeleton System*
- B) *The Nervous System* – Organs, sensation vision, hearing, sense of touch, smell and taste.

**Unit - 3 - Elementary Anatomy, Physiology & Functions of -**

- A) *The Circulatory System* – human heart and other organs, Composition of blood and function.
- B) *The Respiratory System* – respiratory organs and their functions.

**Unit - 4 - Elementary Anatomy, Physiology & Functions of -**

- A) *The Digestive System* – organs of the digestive system and their functions.
- B) *The Excretory System* – organs of the excretory system and their functions

**Unit - 5 - Elementary Anatomy, Physiology & Functions of -**

- A) *The Endocrine System* – The ductless glands and their functions.

B) **The Reproductive System** – elementary knowledge of male and female reproductive organs, their function.

**Internal assessment- 25**

A) Prepare charts and poster on Human Physiology

B) Each student should make minimum two poster or Chart.

**PAPER VI - COMPUTER BASICS      MM- 50**

A) What is Computer

B) Characteristics of Computer

C) Generation of Computers

D) Classification of Computers

E) Hardware & Software

F) Input & output devices

G) Data Representation & Processing

H) **Unit - 2 - Windows**

I) *Features of Windows* -- - Date & Time

J) - Mouse

K) - Display

L) - Find

M)- Fonts

N) - Run

**Unit – 3 – MS WORD**

A) Starting word

B) Formatting

C) Creating documents

- D) Parts of word window
- E) Toolbars and their icons
- F) Tables

#### **Unit-4- MS Excel**

- A) Starting MS-Excel
- B) Toolbars and their icons
- C) Selecting cells
- D) Entering and editing text
- E) Entering numbers
- F) Entering cell contents
- G) Formulas
- H) Creating the charts

#### **Unit -5- MS- POWERPOINT**

- A) Starting powerpoint
- B) Creating powerpoint presentation
- C) Editing text on slide
- D) Formatting text
- E) Formatting paragraphs
- F) Checking text
- G) Using clip art gallery
- H) Develop a slide show

#### **Unit- 6- INTERNET**

- A) Computer network
- B) What is internet?
- C) Use of internet
- D) Software and hardware requirements of internet
- E) Search engines and search of a topic
- F) Advantages and disadvantages
- G) Creation and use of Emails

### ***PRACTICAL MM-50***

#### ***A- Window XP***

- G) Starting & shutting Computer, Moving windows, Display Properties.
- H) Exploring Disk, Files & Folders.
- I) Use of CDs & Pen drives

***B- MS-Word***

- a. Creating a new word document, Open existing document, Save, Print, Page Setup, Close, Exit.
- b. Edit, View, Insert, Format, Tools menus

***C- MS- Power Point***

- a. Starting presentation , Improving presentation, Create Presentation using Auto Content Wizard & Using powerpoint Templates, Copying Text, Moving Text, Deleting Text, Aligning Text in a Slide,
- b. Changing fonts, Adding Symbols, Using Clip Art Gallery, Animate text and Graphic Object

***D- MS Excel***

- a. Printing & Saving sheets, Entering & Editing text, Page Setup
- b. Edit, Insert, Format, Tools men

***E- Internet***

- a) Opening web page
- b) Search Engines
- c) E-mail
- d) Downloading files from Internet

## **SEMESTER II**

### **PAPER 1- INTRODUCTION TO TEXTILES MM-50**

#### **Unit - 1 - Introduction to Textiles**

- A) Classification of Textile and their general properties.
- B) Importance of textiles in day to day life.

Factors affecting selection of fabric for various end uses

#### **Unit - 2**

**History, Composition, Manufacturing Process, Properties Uses of Common Fibres**

- A) *Natural Cellulosic Fibers - Cotton, Flax and Jute.*
- B) *Natural Protein Fibres - Silk and Wool.*
- C) *Synthetic Fibres - Rayon, Acrylic, Nylon and Polyester.*

#### **Unit - 3 - Study of Yarns**

**A) Definition and types of yarns.**

- i) *Simple Yarn : Single Ply, Cord, Staple, Filament, Balanced,*

**Unbalanced, Types of Twist and Effect of Twist on Fabric performance.**

- i) *Complex Yarns : Slub, Flock/Flack, Bounce/ Loop, Ratine, Loop, Knot, Grandelle Chenille. Methods of Spinning.*

#### **Unit - 4 - FABRIC CONSTRUCTION**

**A) Study on Hand loom-parts and their uses.**

**B) Basic weaves used in fabric construction and classification of weaves.**

- i) **Plain weaves and variations.**    iii) **Floating weaves.**
- ii) **Twill weaves and variations.**

**C) *Other Methods of fabric construction - Netting, Knotting, Felting, Braiding and Bonding (Knitting).***

**Unit - 5 - FABRIC FINISHES**

**A) Importance and classification**

**B) Methods and uses of --**

- i) *Mechanical - tentering, calendaring, napping, sanforizing singing.***
- ii) *Chemical - Mercerizing, bleaching Additive-Sizing***
- iii) *Special finishes - Water proof, moth proof, acid and basic finishes.***

***Practical***

***M.M. 50***

**A) Identification of textile fabrics by- visual, burning, microscopic and chemical tests.**

**B) Laboratory tests on fabrics- Fabric count and balance of cloth.**

**C) Laboratory Identification of different types of weaves and collection of their sample,**

**D) Color fastness to sunlight and washing of various fabrics.**

**PAPER II - INTRODUCTION TO RESOURCE MANAGEMENT**

**M.M.50**

**Unit - 1 - Home Management**

**A) Definition, Philosophy, and Concepts of Home Management**

**B) The Management Process-Planning, Organizing, Controlling and Evaluation.**

**Unit - 2 - Family Life Cycle**

**A) The Family life cycle and its stages.**

B) Qualities and responsibilities of a good homemaker.

C) *Motivation in home management* - values, goals and standard.

### Unit - 3 - Decision Making

A) Importance and classification of decisions.

B) Decision making process.

C) Conflicts during decision-making.

### Unit - 4 - Family Resources

A) Classification and characteristics of resources.

B) *Time Management* - Time demand in different stages of the family life cycle.

C) *Energy Management* - Energy demands in different stages of family life cycle, Work curve and fatigue types.

### Unit - 5 - Work Simplification

A) Definition of work simplification and its importance.

B) Techniques of work simplification.

C) Mundel's classes of change.

### **Practical MM-50**

a) Time plans for different work situations.

B ) Making of waste material article.

c) Making of a decorative article.

d) Cards and bookmarks.

**Unit - 1 - Simple Machines**

- A) Machines and their principles, efficiency, mechanical advantage, lever pulley and axel.
- B) *Working knowledge of household equipment* - Vacuum Cleaner, Hair Dryer, Food Processor, Washing Machine, Microwave Oven and OTG.

**Unit - 2 - Heating & Cooling Machines**

- A) *Functioning, utility and maintenance of* - Heater, Iron, Water Geysers, OTG and Induction cooktop.
- B) *Functioning, utility and maintenance of* - cooler, refrigerator, air conditioner and deep freezer.

**Unit - 3 - Light & Electricity**

A) *Light* -

- Properties and transmission of light.
- Laws of reflection and refraction, Normal vision, defects of vision.
- *Working* of camera, microscope and Binoculars.

B) *Electricity* -

- Transmission of electricity.
- Study of conductors, ammeter and voltmeter.
- Study of house wiring, earthing, transformer, adopter, plug, fuse, bulb, fluorescent tube.

**Unit - 4 - Sound**

- A) Production & Reflection of sound measurement of noise, echo and its uses.
- B) Elementary knowledge of radio, television, telephone, microphone and loudspeaker.



### Unit - 5 - Consumer Awareness

- A) Guarantee and warranty of all household equipment.
- B) Precautions while using equipment and servicing of equipment used.

#### **Practical      MM-25**

A-Measurement of length and diameter with calipers.

B-Determination of Refractive index of glass.

C-Determination of Focal length of optical lenses.

D-Verification of Ohm's law.

*F*- Measurement of voltage of various household equipment used

### **PAPER IV - APPLIED CHEMISTRY**

**M.M.50**

#### **Unit - 1 - Introduction**

- A) Branches of Chemistry, its terminology.
- B) Element, mixture, valency, compound, molar solution & equivalent weight.
- C) Atomic Structure of Electron, Proton and Neutron
- D) Atomic number, atomic weight and atomic structure of sodium, chlorine, copper.

#### **Unit - 2 - Acids, Base & Salts**

- A) *Alkaloids* - Function and Properties of Alkali.
- B) Uses and effects of Nicotine and Quinine.
- C) Types of Dyeing agents and their uses.

#### **Unit - 3 - Study of Drugs**

- A) Definition and function of Antibodies, Antiseptics, Analgesics, Sulpha-drugs, Insecticides disinfectants.
- B) *Fire extinguisher* - use and maintenance.

**Unit - 4 - Cosmetics**

- A) Composition, characteristics of Cold and Vanishing Creams, Lipsticks, Nails Paints , Shampoo , Suns Creams and Hair Color , Hair Oil & Dyes.
- B) Precautions while purchasing cosmetics and while using them.

**Unit - 5 - Paint & Vanishes**

- A) Composition and Types.
- B) Elementary knowledge of Cement and Glass.

***Practical***

***M.M. 25***

- A) Maintenance and handling of physical and chemical balance.
- B) Qualitative analysis of -
  - Acid Radicals* - Chloride, Acetate Phosphate, Sulphate, Sulphide as
  - Basic Radical* - Aluminum, Chromium, Zinc, Copper, Iron, Nickel, Lead.
- C) Determination of pH
- D) *Qualitative analysis of Preservative* - Nitrate, Sulphites, Salicylate, Benzoate.

**PAPER V - SANITATION & HYGIENE M.M.50**

**Unit - 1 - Health**

- A) Concept of Positive Health, Good Health, Mental Health, School Health, & Social Health.
- B) Factors affecting health.

**Unit - 2 - Hygiene**

- A) School hygiene and industrial hygiene.
- B) Health Hazards of industrial workers and safety measures.

**Unit - 3**

***Infectious Disease*** - Symptoms, Causes, Care, & Treatment.

**Unit - 4**

- A) ***Water, food borne diseases*** - Cholera, Dysentery, Tuberculosis, Hepatitis, Diarrhea.
- B) ***Air borne and viral infection*** - influenza, cold, pneumonia, polio, measles, mumps.

- C) *Insect and rodent agencies* - Malaria, Plague, Dengue
- D) Direct contact through Cuts and Abrasions, Skin Disease, Conjunctivitis, Leprosy, Tetanus.

**Unit - 5 - Food Sanitation**

- A) Control and Inspection
- B) Planning and implementation of a training program for health personnel.

**Unit - 6 - Public Health Organization**

- A) W.H.O., central and state health activities, immunization programmes {Triple vaccine - smallpox, polio, typhoid, cholera, tuberculosis, AIDS and hepatitis}.
- B) Municipal and district health services.

**PAPER VI - MEAL MANAGEMENT      M.M.50**

**Unit - 1**

- A) Relationship of nutrition to human health, growth and human welfare.  
Concept and definition of terms
- B) Recommended dietary allowances for Indians, Normal Nutrition, Malnutrition, Under-nutrition, Dietary Fiber, Water, Acid-Base Balance, Electrolyte Balance.

**Unit - 2**

- A) Energy value of food and energy requirement,
- B) Basal metabolism, factors affecting basal metabolic rate, calorogenic effect of food, specific dynamic action of food.

**Unit - 3**

- A) Basic principles of meal planning and its importance.
- B) Planning menu for individual and family
- C) Factors affecting meal planning, food groups, their exchange and distribution.

#### **Unit - 4**

Nutrition during infancy, creoscolage, school age, Adolescence, Adults and the elderly (for both genders torcus activity levels and all income groups).

#### **Unit - 5**

Nutrition during pregnancy and lactation , nutritional requirements , effect of malnutrition on maternal health and pregnancy outcome.

#### **PRACTICAL**

**M.M. 50**

- A) Categorization of food as Rich, Moderate and Poor Sources of Energy, Protein, Fat, Carbohydrates, Vitamins and Minerals.
- B) Demonstration, understanding of principal and working of a bomb calorimeter.
- C) Planning diets for different age groups, income groups and activity levels.
- D) Planning diet for Pregnancy and Lactation Period.

### **SEMESTER III**

#### **Paper 1 FAMILY DYNAMICS**

**M.M-50**

#### **Unit 1- Family**

- A) Meaning, definition and structure of family.
- B) Changing trends in family constitution, roles, demand and responsibilities.
- C) Nuclear and joint families- structure, role, interaction and hierarchy of dominance in joint and nuclear families.

#### **Unit II- Marriage and Indian society**

- A) Meaning, definition and institution of marriage.
- B) Readiness for marriage a) Psychological b) Social
- c) Physiological d) Economical

- C) Preparation for Marriage
- a) Selecting a suitable partner
  - b) Premarital association
  - c) Premarital guidance and counseling

### **Unit III- Marital Adjustment**

- A) Areas of adjustment within the family at different stages of family life cycle.
- B) Legal aspects of marriage-
  - a) Hindu law of marriage
  - b) Muslim law of marriage
  - c) Christian law of marriage.

### **Unit IV- Families at risk**

- A) Marital disharmony
- B) Separation
- C) Violence and distress

**Unit V-** Influence of different disciplinary patterns, maternal deprivation and overprotection in child development.

## **PAPER II - HUMAN DEVELOPMENT MM-50**

### **Unit - 1 Early Childhood**

- A) **Childhood Period Physical motor development - change in height, weight, body proportion & motor development.**
- B) **Social and Emotional Development -**
  - a) **Socialization & parent child relation**
  - b) **Role of play activities & theories of play.**
  - c) **Meaning characteristics of childhood emotion's.**  
**Development of Common Emotions - Fear , Anger, Joy, Grief, Jealousy, Curiosity, Etc.**

### **Unit - 2 - Intellectual Development**

- A) **Definition & factors affecting intellectual development.**

**B) Development of Reasoning , Memory, Imagination , Communication, Creativity.**

**C) Moral Development & Discipline.**

**Unit - 3 - Late Childhood Period**

**A) Physical development - height, weight, body proportion , motor skills & sports**

**B) Social & Emotional Development -**

**a) Process of socialization & relations with parents, siblings & peers.**

**b) Emotional characteristics & factors affecting emotions.**

**Unit - 4**

**A) Physically Challenged**

**B) Emotionally Challenged**

**C) Mentally Challenged**

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**PAPER III - CONSUMER ECONOMICS MM-50**

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**Unit - 1 - Family Income**

**A) Family Income - Meaning, Definition**

**B) Types of Income & Methods of Handing Income, Money Income , Real Income , Psychological Income & Supplementary family income.**

**Unit - 2 - Budget & Saving**

- A) Budget - Meaning & Definition , Types of Budget , Engle's Law of Consumption , Factors Influencing Budget, Steps in Making Budget.
- B) Saving - Meaning of Saving , Objectives , Types , Investment Schemes & Agencies of Saving & Investment

### Unit - 3 - Consumer & Consumer Behaviour

- A) Meaning & definition, Objectives & Need for Consumer Education.
- B) Definition of Consumer characteristics & Role of consumer in the economy.
- C) Consumer behaviour & educating consumer
- D) Consumer buying habits choice & needs.

### Unit - 4 - Consumer in the Market

- A) Concept & classification of market.
- B) Types of Market - WholesaleMarket , Retail Market , Local Market ,

### Telemarketing , Global Market , etc.

- C) Changing nature of the Business World i.e., E-Business & E-Commerce
- D) Consumer buying habits & Consumer choice & needs.

### Unit - 5

- A) Consumer buying problems –
  - a) Adulteration & other Malpractices

b) Weight & measures.

B)Consumption –

a) Wants , Demands & Supply Laws

b) Law of Diminishing Marginal Utility & Marginal Utility.

## **PRACTICAL - MM- 50**

- A) Market Survey of Commodities**
- B) Consumer buying problems adulteration faulty weight measures & other malpractices**
- C) Analyzing the advertising & label information**

## **PAPER IV - NUTRITIONAL BIOCHEMISTRY MM-50**

### **Unit - 1 - Introduction To Biochemistry**

- A) Objectives & Scope of Biochemistry**

### **Unit - 2 - Carbohydrates**

- A) Introduction , Composition , classification & functions of carbohydrates**
- B) Metabolism of carbohydrates**

### **Unit - 3 - Lipids**

- A) Composition , Classification & Functions of Lipids**
- B) Digestion & Absorption of Lipids**

### **Unit - 4 - Proteins**

- A) Definition, Composition, Classification & Properties of protein.**
- B) Digestion, Absorption & Metabolism of proteins.**

### **Unit - 5 - Micronutrients , Enzymes , Hormones**

- A) *Vitamins* - Definition, Classification, Function, Storage, Absorption & Excretion of vitamins. [ Fat Soluble & Water Soluble ]**
- B) *Mineral* - Classification, Digestion, Storage & Excretion**
- C) *Enzymes* - Definition, Properties, Inhibition, Factors Affecting Function of Enzymes Clinical Importance**



**D) *Hormones* - Types, Secretary Glands & Biological Role of Hormones.**

**PRACTICAL**

**M.M.-50**

**A) Detection of Glucose , Fructose , Sucrose, Maltose & Lactose**

**B) *Identification of protein* - casein, egg , albumin.**

**C) Separation of Water & Insoluble Protein From Egg Proteins.**

**D) Test of starch :**

**a) Iodine test for starch solution.**

**b) Preparation of stained slide of & Potato Starch Grain.**

**c) Microscopically examination.**

**E) Estimation of Chloride in table salt by Titrimetric Method**

**F) Estimation of Vitamin C content in food by Titrimetric Method**

**PAPER V - LAUNDRY SCIENCE & FINISHING OF FABRICS      M.M.50**

**Unit - 1**

**A) Principles of laundering & their application on laundry equipment.**

**B) Water - Hard water , Soft water , techniques of removal of hardness caused by hard water.**

**Unit - 2 - Soaps & Detergents**

**A) Kind & Composition , Manufacturing , Functioning & Properties of Laundry Soap & Detergent**

**Unit - 3**

**A) *Blues* - Types , Composition , Uses & Action of blues.**

**B) *Stiffening Agent* - Composition , Sources, Preparation & Application of various stiffening agents**

**C) *Bleaches* - Classification of their uses.**

#### **Unit - 4 - Stains**

**A) Definition, Classification, Identification, General Precautions observed during Stain Removal home and lab method for removing stains.**

**[ Blood , Wax , Chewing Gum , Chocolate , Coffee , Egg , Ice-cream, Fruit , Grass , Medicine , Ink Pen , Ball Pen, Iron Ink , Rust , Mildew , Lipstick , Oil , Paints ]**

**B) *Dry Cleaning* - Definition, Principles, Dry Cleaning Agents & their Uses ,**

**Comparison with Wet Cleaning Advantages and Disadvantages.**

#### **Unit - 5 - Fabric Finishes**

**A) Importance & Classification**

**B) *Method & Uses* -**

**a) *Physical* - Singeing , Napping , Brushing Shearing , Sizing , Shrinking,etc.**

**b) *Chemical* - Bleaching , Mercerizing , etc.**

**c) *Special Finishes* - Wrinkle Resistant , Water Resistant & Repellent, Flame Retardant , Crease Resistance**

#### **PRACTICAL MM: 50**

**A) Study of laundry equipment.**

**B) Laundering of different types of fabrics.**

**C) Stain Removal**

**D) Bleach & Starching fabrics**

**E) Dry cleaning of fabrics**

**PAPER-VI APPLIED LIFE SCIENCE-I                      MM:50**

**Unit - 1 - Soil**

**A) Importance & general knowledge of soil**

**B) Soil & Selection of Soil for establishing a new garden.**

**C) Methods for making of soil for more Fertilization & Conservation of Soil.**

**Unit - 2 - Manure & Fertilizers**

**A) Importance of manure.**

**B) Methods for application of Manure & Fertilizers.**

**C) Preparation Of Compost of manures & Bio- Fertilizers.**

**Unit - 3 - Plants**

**A) Elementary idea of the classification of Plant Kingdom Parts of a typical Angiosperm Plant , Pollination Fertilization , Dispersal of Seeds & Life cycle of the plant.**

**B) *Economic Botany* - Plants, different parts of Plant useful for Human**

**Welfare & daily Human Life.**

**Unit - 4 - Herbal & Medicinal Plants**

**A) General knowledge of gardening.**

**B) Planting , Maintenance & Therapeutic Use of herbal & medicinal plants.**

**Unit - 5 - Kitchen Gardening**

**A) Scope & layout of Kitchen Gardening**

**B) *Cultivation of vegetables* - Tomato , Cauliflower , Bhindi , Brinjal ,  
Potato**

**Chillies , Raddish , Potato , Carrot**

**Practical M.M.-50**

**A) Layout Of Kitchen garden Practical knowledge of garden tools.**

**B) Transplantation of seedlings**

**C) Seedbed preparation sowing of seeding & raising seedlings , weeding ,  
hoeing , irrigation , earthing & staking.**

**D) Identification & Common Bacterial & Viral infected plants.**

**E) Collection of Ornamental plants & Vegetables common weed.**

**SEMESTER IV**

**PAPER I - INTRODUCTION TO CLOTHING CONSTRUCTION M.M.50**

**Unit - 1**

**A) Sewing Machine & its part, common defects & how to remedy them.**

**Unit - 2 - Selection of Clothing Material**

**A) *Factors influencing in selection of fabrics* - Budget , Age , SEASON  
Occupation , Figure , Fashion , etc.**

**B) Selection of Linen, Towel , Bedsheet, Table Covers & Curtains.**

**Unit - 3 - Principles of Clothing Construction**

- A) Principles of Drafting & making Paper Pattern**
- B) Taking Body Measurement of different types of garment**
- C) Preparation of fabric for garment making**
- D) Layout of patterns ,cutting & stitching**

**Unit - 4**

- A) Basic seams & seam finishes**
- B) *Fullness* - gathers, pleats, darts & trucks,etc**
- C) Placket opening & its variation**
- D) Fasteners & pockets**
- E) *Finishing of neck lines* - various techniques including collars**

**Practical M.M.-50**

- A) *Sewing Techniques* -**
  - i) Basic seams & seam finishes**
  - ii) Placket opening & its variations**
  - iii) *Fullness* - gathers, pleats, darts, tuck, etc.**
  - iv) Pockets**
  - v) Fasteners**
  - vi) Finishing of neck lines-various techniques including collars**
- B) *Garment Construction* - Drafting, Cutting, Stitching of simple garments like Bib, Baby's Panty, Sun Suit/Rompers, A - Line Dress, Simple Frock with Yoke.**

**Unit - 1**

**Meaning , Definition , Working Principle , Use & Care of Household Equipment in Terms of :-**

**A) Electrical-motor driven**

- i) *Food Related* - refrigerator ,grinder,mixer, blender, food proce**
- ii) *Laundry* – Washing machine**
- iii) *Cleaning* –vaccum cleaner**

**Unit - 2**

**A) Electrical- heat appliance**

- i) Food related - surface heating units,toaster, percolators ,oven simple & microwave.**
- i) Laundry - electric iron & its type.**

**Unit - 3**

**A) Solar Cooker**

**B) Non Electrical - cookers, non stick pans,knives,peelers,graters**

**C) Certification & Guarantee - their meaning, implication**

**D) Cleaning of household articles { including metals }**

**Practical**

**M.M. 50**

- A) Conduct market survey of electrical & non - electrical equipment for projecting trends in equipment.**
- B) Evaluation of different electrical & non- electrical equipment.**

C) Cleaning of different household articles.

**PAPER III - FOOD MICROBIOLOGY M.M.50**

**Unit - 1**

A) Brief history of food microbiology & introduction to important microorganisms in food .

**Unit - 2**

A) Cultivation of microorganisms - nutritional requirements of microorganisms, types of media used, methods of isolation.

**Unit - 3**

A) Fundamentals of control of microorganisms in foods - Use of High & Low Temperature , Dehydration , Freezing , Irradiation , Preservation , Sterilization & Disinfection.

**Unit - 4 - Food Spoilage**

A) Food Spoilage - Contamination of foods & microorganisms in the spoilage of different kinds of food.

- Cereals & Cereals Products, Vegetables & Fruits
- Fish & Meat Products ,egg & meat poultry
- Milk & Milk Products ,canned food

**Unit - 5 - Public Health Hazards Due To**

A) Contaminated Food

B) Microbes used in Food

C) Biotechnology

D) Fermented Foods

**Practical MM: 50**

- A) Demonstration of different parts of the Microscope, the use & care of Microorganisms.**
- B) Preparation of Bacterial Smear, simple staining**
- C) Preparation of Common Laboratory media for Cultivation of Bacteria , Yeast & Mold.**
- D) Morphological identification of important , molds & yeasts - Rhizopus, mucor, aspergillus, penicillium, sacchromyces, alternaria, demonstration of micro biological analysis of water,milk**

**PAPER IV - APPLIED LIFE SCIENCE II MM: 50**

**Unit - 1 - Poultry Keeping**

- A) Knowledge about housing, feeding & important breeds.**

**Unit - 2 - Apiculture**

- A) General introduction & Collection of Honey.**

**Unit - 3 - Sericulture**

- A) General introduction about silkworm & rearing.**

**Unit - 4 - Insect Pest**

- A) Knowledge of organism, their Control & Damage by - Cockroach, Termite , Grain Moth , Weevil , Clothmoth.**

**Unit - 5 - Fish Culture**

- A) Knowledge about fish culture, Management of fish culture programmes, By- Products of fishing industry.**



- A) Identification of Insect Pest, Silkworm, Bees.**
- B) Maintenance of Bee Hives & Collection of Honey.**
- C) Insect Pest Management -**
  - Natural Control,**
  - Applied Control &**
  - Integrated Pest Management.**
- D) Visit to Poultry Farm.**

**PAPER V - HUMAN DEVELOPMENT III**

**MM: 50**

**Unit - 1 - Adolescence ( 13 - 18 yrs)**

- Definition**
- Different Views regarding the Period**
- Developmental Task & Characteristics.**

**Unit - 2 - Physical Development**

- Puberty**
- Growth Spurts**
- Primary & Secondary Sexual Characteristics**
- Early & Late Maturing Adolescent**

**Unit - 3**

- A) Definition , Construction of an Identity**
- B) Factors Influencing Identity Development**
- C) Choosing a Career , Stages , Factor Affecting Selection of Career.**

#### Unit - 4

A) Social Relationships & Heterosexual Relationship, Importance.

B) *Heightened Emotionality* - meaning , causes , expression , characteristics of emotional maturity.

#### Unit - 5

A) Problems :

- Drug & Alcohol Abuse
- STD & AIDS

### PAPER VI - COMMUNITY NUTRITION

**MM:50**

#### Unit - 1

A) Concepts & Scope of Community Nutrition

B) Common Problems in India

#### Unit - 2

A) Factors Affecting Food Availability & Intake.

B) Agriculture Production , Population , Distribution & Industrialization

#### Unit - 3

A) Food Adulteration , Food Laws

B) Common Food Adulterants & Health Hazards

C) Agencies Checking Food Adulteration

#### Unit - 4

A) Meaning of Nutrition Education & its Importance

B) Organization of Nutrition Education Programme for the Community

**C) Communication Methods**

**D) Communication Aids**

**Unit - 5**

**A) Nutrition Programmes in India**

**B) Role of National , International & Voluntary Agencies**

**SEMESTER V**

**PAPER I - THERAPEUTIC NUTRITION**

**MM:50**

**Unit - 1**

**A) *Therapeutic Nutrition* - Importance,different types of diets, modification of normal diets to therapeutic nutrition, methods of feeding patients, pre- and post operation diets.**

**B) *Multi Deficiency Diseases* - Protein Energy Malnutrition classification of PEM according to Gomez welcome group of IAP (Indian associate Pediatrician).**

**Unit - 2**

**A) *Diets in fevers* - acute and chronic**

**B) *Diets during* underweight, overweight and obesity.**

**Unit - 3**

**A) *Diets in Diseases of Intestine*: diarrhoea and constipation.**

**B) *Diets in Diseases of Stomach and Duodenum*: dyspepsia, gastritis and peptic ulcer.**

**C) *Diet in Liver Diseases* - hepatitis.**

**Unit - 4**

- A) *Diet in Cardio-Vascular diseases* : hypertension and Atherosclerosis.
- B) *Diet in Kidney disease* - Nephritis.

**Unit - 5**

- A) *Diabetes Mellitus* - Classification, Causes, Test, Diet Therapy
- B) Diabetes in children and pregnancy.

**Practical M.M.-50**

- A) Planning and preparation of soft and liquid diet.
- B) Diet in Kwashiorkor, Marasmus.
- C) Diet for underweight and obese |
- D) Diet in Fevers.
- E) Diet in diarrhea and constipation
- F) Diet in peptic ulcers
- G) Diet in hypertension
- H) Diet in diabetes|

**PAPER II - HUMAN DEVELOPMENT - IV**

**MM: 50**

**Unit - 1 - Young Adulthood (20 to 35 years)**

- A) Definition of an adult, its characteristics.
- B) Developmental task of a young adult, significance of the period, responsibilities and adjustments, Parenthood, financial matters.
- C) Occupational cycle.

**Unit - 2 Middle Adulthood (35 to 50 years)**

- A) Definition, physical changes (Senses, disease)**
- B) Menopauses and associated health risks.**
- C) Stresses in middle age, coping with stress at family workplace, occupation, Job satisfaction.**
- D) Preparation for retirement.**

**Unit - 3 - Late adulthood (50 - 60 years)**

- A) Definition, physiological changes, health problems, cognitive and memory changes.**
- B) Retirement - effect of retirement (emotional and economic) on self and family, financial problems ached, changes in relationship with family.**

**Unit - 4 - Old Age (65 years onwards)**

- A) Personality characteristics of old age.**
- B) Issues :- Old age homes coping with loneliness post parental status. Recreational activities.**

**PAPER III - COMMUNITY DEVELOPMENT **MM:50****

**Unit - 1**

- A) *Community Development* - Meaning, Definitions, Types and scope.**

**Unit - 2**

**Goals, Purposes and Problems of Community Development.**

**Unit - 3 - Community development in India**

- A) Evolution of community development programme in India since Independence**

**B) Structure and function of community development at different levels.**

**Unit - 4 - Support structures and their functions:**

**A) Central social welfare board**

**B) Welfare programmes : JRT, IRDP, ICDS, DWCRA**

**C) National voluntary Agencies: CAPART, KVIC, ICAR**

**D) Elected Panchayat**

**Unit – 5**

**Critical review of community development programmes in five year plan.**

**PAPER IV - FAMILY HOUSING MM:50**

**Unit - 1 - Factors Influencing Choice of Family Housing**

**A) Family Size - Size of Family, Family Structure, Family activities, Stage in Family Life Cycle.**

**B) Income of family**

**C) Availability of Housing**

**D) Housing values & Standard**

**E) Selection of site**

**F) Selection of House site: Types of soil, locality Orientation and Public Convenience**

**Unit - 2 - Residential Planning**

**A) Principles underlying the planning of House-Aspects, Prospects, Privacy, Grouping, routines Flexibility, Sanitation, Circulation**

**B) House plan for different income groupe**

### Unit - 3

- A) **Construction & Building Material**
- B) ***Construction Features of a House* - Foundation walls, doors, windows. Floor & floor covering roof, Staircases,**
- C) ***Building Materials* - Bricks, Stones Cement, Lime, Plastics, Glass, Metals, Woods.**

### Unit - 4

- A) **Advantages of renting a house**
- B) **Disadvantages of renting a house**
- C) **Advantages of home ownership**
- D) **Disadvantages of home ownership**

### Unit - 5

- A) **Government Housing Scheme**
- B) ***Financial Institution* - L.I.C Bank, Housing board cooperative housing societies**

### Practical M.M. 50

- A) **Making different House plans from the various Income levels.**
- B) **Visit and Observation of a residential building under constructions**

### PAPER V- ADVANCED CLOTHING CONSTRUCTION M.M.50

### Unit - 1

- A) **Drafting, and making paper patterns for different garments**
- B) **Placing and cutting patterns in relation to fabric**
- C) **Principles of good design**

**Unit - 2**

**A) Renovation & removal of defects in garments.**

**B) Fitting Problems.**

**Unit - 3 - Clothing and its importance**

**A) Biological, psychological and sociological aspects of clothing.**

**B) Influence of need and environment on clothing behaviour.**

**Unit - 4**

**a) Fashion - Fashion Cycle, role of Fashion Designers, current Fashion Trends.**

**Practical M.M.-50**

**1-Construction of garments-**

**Children clothing**

**a) Pleated A-line frock**

**b) Yoked frock with sleeves**

**c) Night suit (Bushirt & Pyjama)**

**women's Clothing-**

**a) plain blouse**

**b) Choli cut blouse**

**c) A-line kurta/salwar**

**PAPER VI - NURSERY SCHOOL EDUCATION**

**M.M.50**

**Unit - 1**

**A) Objectives and importance of Nursery school education.**

**B) Characteristics, growth and development of nursery school children and identification of his/her needs.**



## Unit - 2

- A) Historical development of nursery school education with special reference to the country.
- B) Different methods & philosophies of nursery school education.

## Unit - 3

- A) Role of government and other agencies in providing nursery school education.
- B) *Development of Play* - meaning, importance, & types of play.
- C) *Development of creativity* - meaning, importance & expressions of creativity.

## Practical M.M. 50

- A) Visit to at least 3 Nursery Schools and submission of report.
- B) Preparation of Teaching aids for Nursery School Children.
- C) Case study of a preschool age child.
- D) Participation in Nursery School organization and submission of report.

## SEMESTER VI

### PAPER I - TEXTILES DESIGNING

MM:50

## Unit - 1

- A) Elements & Principles of Design in relation to textiles.
- B) History of textile design, Classification of textile design -- woven & printed. Methods of getting design of textile and their comparison.
- C) Preparation of fabric before dyeing and printing.
  - *Industrial level processing* - Singeing, desizing, scouring, bleaching, kier boiling, mercerizing.
  - *Cottage level processing* - desizing, bleaching, carbonizing

## Unit - 2 - Dyes

- A) Classification of dyes.
- B) *Mode of action and application* - on yarn and fabric ( fibre & garment) .
- C) *Styles of Dyeing* - direct, resist, discharge.

## Unit - 3 - Printing

- A) Methods of Printing
- B) *Hand Printing* - block, stencil, screen, spray
- C) Machine Printing.

## Unit - 4

- A) *Traditional Textiles of India* -
  - Chanderi of Madhya Pradesh,
  - Brocade of Uttar Pradesh( Banaras) & Andhra Pradesh( Hyderabad),
  - Patola of Gujarat , Orissa & Andhra Pradesh ,
  - Chamba Rumal of Himachal Pradesh, Balucheri of Bengal,
  - Muslin of Dhaka ,
  - Kosa Silk of Chhattisgarh.

Unit - 5 A) *Traditional Embroideries of India* - Kashmiri , Phulkari , Chikankari , Kantha , Gujarati , Kasuti.

## Practical M.M. 50

- A) Preparation of samples of all traditional embroideries.
- B) Preparation of samples/articles using various Dyeing and printing techniques.

## PAPER II - INTERIOR DECORATION & ART PRINCIPLES M.M.50

### Unit - 1

- A) Basic principles of Home Furnishing
  - a) *Elements of Art* - line, form, colour, pattern, light - Characteristics and classification, texture, space.
  - b) *Study of Colours* - classification, colour schemes and their effects.
- B) *Principles Of Design* - definition, characteristics & types.
  - a)Balance B)Harmony C)Scale D)Proportion E)Rhythm F)

Emphasis

**Unit - 2**

- A) Flower arrangement.**
- B) Principles, selection and different flower arrangement styles.**

**Unit - 3**

- A) Lighting arrangement.**
- B) Natural and Artificial arrangement for different rooms and activity centres.**

**Unit - 4**

- A) Furnishing materials**
- B) Selection, purpose, placement, use and care of furnishing material.**
- C) Curtain and Draperies**
- D) Floor coverings.**
- E) Furniture.**
- F) Bed and Beddings.**

**Practical M.M.-50**

**Drawing of colour wheel and developing colour schemes.**

- A) *Flower arrangement* - fresh and dry.**
- B) *Floor decoration* - Rangoli and Alpana**
- C) Preparation and placement of accessories for interior and enrichment ( any two articles ).**

**PAPER III- Food Preservation and Protection MM:50**

- A) Food Spoilage - its causes.**

- B) Perishable, Semi- Perishable and Non- Perishable foods.**
- C) Factors affecting the growth of microorganisms in the food.**
- D) Intrinsic and extrinsic parameters.**

### **Unit - 2**

- A) Food Preservation**
- B) Importance and Principles of food preservation**
- C) Methods of food preservation**
- D) Use of low temperature ( refrigeration and freezing)**
- E) Use of high temperature ( pasteurization and sterilization)**
- F) Use of preservatives**
- G) Drying**
- H) Radiation**

### **Unit - 3**

- A) Food Fermentation**
- B) Microorganisms as food - SCP ( Single Cell Protein )**
- C) Food Adulteration and its household methods of detection.**

### **Unit - 4**

- A) *Food Additives* - Definition and classification**
- B) General Principle of the use of food additives issued by FAO, WHO**
- C) Natural and Synthetic Preservatives**

### **Unit - 5**

- A) Food laws and Standards.**
- B) Responsible Agencies for safe food.**

**C) Present regulations / orders / standards related to food**

**Practical M.M.-50**

**1)Preparation of jams, jellies,  
marmalades,murrabbas,pickles,chutneys,squashes,sauce.**

**2)Bottling of fruit juices.**

**PAPER IV - ENTREPRENEURSHIP AND MOTIVATION M.M.50**

**Unit - 1**

**A) Concept of Entrepreneurship**

**B) Theories of Entrepreneurship**

**Unit - 2**

**Classification and types of Entrepreneurship**

**Unit - 3**

**A) Creativity and Innovation.**

**B) Entrepreneurial traits and competencies.**

**C) Entrepreneurial and orientation.**

**Unit - 4**

**A) Developing entrepreneurship through training.**

**B) Motivation**

**C) Different motivational theories.**

**Unit - 5**

**Entrepreneurship and Economic Development.**

**Project on Entrepreneurship Fulfilling Following Objectives :**

- A) To develop skills in entrepreneurship.**
- B) To understand the principles of planning, organising, & controlling in different units.**
- C) Gain knowledge to manage manpower & establish good human relations.**
- D) Gain experiences in financial management.**

**PAPER V- EXTENSION TRAINING & MANAGEMENT**

**M.M.50**

**Unit - 1**

- A) Extension training concept.**
- B) Characteristics, principles and psychological concepts used in training,**
- C) Characteristics of an adult learner.**
- D) Factors affecting learners.**

**Unit - 2**

- A) Extension training methods-individual, group, mass contact .**
- B) Participation techniques (PRA) for training.**
- C) Components of training objectives, methods, instructional materials, monitoring & evaluation.**
- A) Training Management**
- B) Meaning**
- C) Structure**
- D) System of Management.**

**Unit - 4**

- A) Functional aspects of Home Science training management**
- B) Planning**
- C) Steps**
- D) Types**
- E) Decision making process .**

**Unit - 5**

- A) Organizing human & non human resources for training.**
- B) Behavioural aspects of management - motivation, leadership, strategy, creativity**
- C) Role of government and non-government agencies in regularizing training,**
- D) Obstacles in management of training.**
- E) Role of maintaining and evaluation in training.**

**Practical**

**M.M. 50**

- A) Preparation of lesson plans.**
- B) Development of instructional materials for the lesson.**
- C) Planning and organizing group discussion.**
- D) Training in use and care of equipments for extension service including audio-visual aids**

