

**The Maharaja Sayajirao University of Baroda, Vadodara**  
**Ph. D Entrance Test (PET Examination)**

**SYLLABUS**

Note : Paper – II will cover 50 compulsory Multiple Choice Questions (MCQ) of 1 mark each covering Entire Syllabus including all electives.

**Subject: Home science**

**PET Examination Code: 16**

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**PAPER-II**

**Unit—I : Food Science**

Food Groups  
Food Preparation  
Food Preservation  
Food Science and Food Analysis  
Food Processing

**Unit—II : Nutrition Science**

Fundamentals of nutrition  
Nutritional biochemistry  
Food microbiology  
Public nutrition  
Therapeutic nutrition

**Unit—III : Institutional Management**

Management of Hospitality Institutes—Hospital/Hotel/Restaurant/Café and Outdoor catering  
Management of Social Institutes—family as Institute, child care and Geriatric institutes, Panchayats

Management of Educational Institutes—Pre-school, Primary and Secondary Schools,  
(Colleges and Universities) Higher Educational Institutes  
Management of Special Institutes for physically, mentally and socially challenged  
Challenges and problems faced by Institutions

#### **Unit—IV : Clothing**

Principles of clothing—Socio-psychological aspects of clothing, selection of fabrics,  
clothing and family clothing  
Clothing construction—basic principles of drafting, flat pattern and draping methods  
Textile design—principles and concepts  
Fashion design—fashion cycles, business and merchandizing  
Care and maintenance of textile materials and garments; Laundry agents—methods  
and equipments

#### **Unit—V : Textiles**

General properties and fine structure of all textile fibers  
Processing and manufacture of all natural and man-made fibers  
Definition and classification of yarns; Identification of yarns and its use in various  
fabrics  
Fabric construction, definition and types of woven, non-woven, knitted and other  
construction techniques  
Testings of fibers, yarns and fabric; Importance of quality control and research  
institutes

#### **Unit—VI : Resource Management**

Concept of Home management and steps  
Management of Human Resources; Classification of Resources; Basic Characteristics  
of Resources  
Decision making in family; Steps in decision making; Methods of resolving conflicts  
Work simplification; Importance of work simplification in home; Mundel's classes  
of change; Simple pen and pencil technique in work simplification  
Housing, Interior design, Principles of Interior design, Various colours and colour  
schemes  
Household equipment—Selection and Care

## **Unit—VII : Human Development**

Child Development—Principles and Stages

Life Span Development—Theories of Human Development and Behaviour

Child rearing, Socialization practices and Dynamics

Early Childhood Care and Education—Emerging trends

Development problems and disabilities during childhood and adolescence, guidance and counselling

Advanced child study methods and assessment

Women's Studies, Family Welfare Programme—Recent Approaches

## **Unit—VIII : Non-formal Education and Extension Education**

History and Development of Home Science in Formal/Non-formal and Extension Education

Theory and Practices of programme/curriculum planning and development

Management and Administration of Formal/Non-formal and Extension Education

Monitoring, Supervision and Evaluation of Formal, Non-formal and Extension Education

Vocationalization of Home Science in India

Theories and Principles of Guidance and Counselling in Formal/Non-formal/Extension

Problems and Challenges encountered in Formal/Non-formal/Extension

## **Unit—IX : Developmental and Educational Communication**

Concept and classification of communication

Traditional Methods and Materials of communication—selection/preparation/use

Modern methods and materials of communication—selection/preparation/use

Strategies for developmental communication

Classroom communications in Home Science trends

Communication for publicity and public relations

Change and challenges in communication in contemporary society

## **Unit—X : Methods of Research**

Trends in Research in Home Science

Research Designs

Types of Research

Sampling Techniques

Selection and Preparation of Tools for data collection.

Type of variables and their selection

Data collection and classification/coding

Analysis of data through parametric and non-parametric statistics

Report writing—presentation of data, interpretation and discussion

### **Elective—I : Food and Nutrition**

Food Science and Quality Control

Macro- and Micro-nutrients

Human Nutritional Requirements

Assessment of Nutritional Status

Food Biotechnology

### **Elective—II : Institutional Management and Dietetics**

Advanced Management and Organisation

Management of Human Resources

Experimental Quantity Cookery

Financial and Profit Management

Quantity Food Preparation Techniques

Food Service and Delivery Systems

Marketing

Therapeutic Dietetics

### **Elective—III : Child and Human Development**

Human Development—Rights perspective

Principles and theories of human development

Early childhood care and development—strategies, monitoring and supervision

Children with special needs and children at risk (child labour, street children, child abuse, chronically sick); Intervention programmes

Socialization in various family contexts across different cultures

Advances in assessment of children

#### **Elective—IV : Clothing and Textiles**

Textile Chemistry—Fibers and dyes

Dyeing, printing and finishing of fibers yarns and fabrics

Textile and Apparel Industry—Fundamental of business, specifications, quality control agencies and marketing

Historic and Traditional Textiles of world with emphasis on India

Curriculum and Teaching in clothing and textiles, analysis and development of curriculum; teaching methods and aids

Consumer and Textiles and Clothing

Recent developments in Textile and Clothing

#### **Elective—V : Home and Community Resource Management**

Concept of Home management, System approach to family, Input, Output and feedback

Family Resources—Management of Resources like time energy and money; Basic characteristics of Resources; Efficient methods of utilization of Resources

Family life cycle—Demands upon resources like time, energy and money

Concept of Ergonomics—its importance and application in home

Concept of communication process and its importance in family; Barriers in Communication process; Measures for effective communication

Concept of work simplification—its importance in home; Simple pen and pencil technique

Consumer Education—Laws protecting consumer; Role of consumer society in protecting consumer; Kinds of adulteration; Identification of adulteration

#### **Elective—VI : Home Science Extension Education**

Curriculum Development for formal education in Home Sciences

General and special methods of teaching Home Science

Media and Materials for promoting Home Science in Formal/Non-formal/Adult/Extension Education

Non-formal and Adult Education in Home Science

Extension Education in Home Science

Women in Changing India and Plans for their development

Self-employment and Entrepreneurship through Home Science

Programmes of extension in Home Science

Measurement and Evaluation including monitoring and supervision for Formal/Non-formal/Adult Education/Extension Education