

Ph.D. Entrance Test - SYLLABUS

HOME SCIENCE

Part - 1

Research Methodology (50%)

Contents:

1. Science, Scientific methods, scientific approach.
2. Role of statistics and research in Home Science Discipline.
Objectives of research: Explain, control and pre-diction.
3. **Types of Research:** Historical, descriptive, experimental, case study, Social research, participatory research.
4. **Definition and identification of a Research Problem**
 - Selection of research problem
 - Justification
 - Theory, hypothesis, basic assumptions, limitations and delimitations of the problem.
5. **Types of variables**
6. **Theory of probability**
 - Population and sample
 - Probability sampling : Simple random, systematic random sampling, two stages and multi stage sampling, cluster sampling
 - Non-Probability sampling : purposive, quota and volunteer sampling / snowball sampling
7. **Basic principles of Research Design**
 - Purpose of research design: Fundamental, applied and action, exploratory and descriptive, experimental, survey and case study, ex-post factor.
 - Longitudinal and cross sectional, co-relational
8. **Data Gathering Instruments :**
 - Observation, questionnaire, Interview, Scaling Methods, Case study, Home Visits, reliability and validity of measuring instruments.

NB: The Research Methodology of 50 MCQs will constitute questions related to English Proficiency, Reasoning Ability, Basic Computer Skills; each of 5 questions – total 15 and 35 Questions of subject specific Research Methodology

Part - 2

Core subject - Home Science (50%) (UGC NET Paper II Syllabus)

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/ Cafe 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; Muhdel'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