



Institute of Home Science University of Kashmir

Hazratbal Srinagar-190006-(Kashmir) J&K
[NAAC Accredited Grade A+].



Syllabus for Integrated Ph.D Entrance test

Subject: Home Science (Food Science & Nutrition)

Unit I

a. Physiology

- ❖ Living cell, Blood and other body fluids.
- ❖ Cardio-vascular, digestive, respiratory, Excretory and Nervous system.
- ❖ Endocrine glands, muscles and skeletal system, sensory organs, immunity,
- ❖ Reproduction and Development.

b. Biochemistry

- ❖ Carbohydrates, lipids, proteins and their metabolism
- ❖ Nucleic acids and their metabolism.
- ❖ Enzymes, Structure & Biochemical role of co-enzymes.
- ❖ Detoxification & its mechanism.

Unit- II

a. Assessment of Nutritional Status

- ❖ Indicators of MCH Care
- ❖ Assessment of nutritional status by Anthropometry & Clinical Examination
- ❖ Assessment of nutritional status by Biochemical and Dietary Assessment
- ❖ Nutritional Surveillance and Social Aspects of Nutrition

b. Advanced Nutrition

- ❖ Body composition, Energy, Water, Carbohydrates, Proteins & Lipids as nutrients inside the body.
- ❖ Macro & micro elements, their biochemical role, absorption, deficiency, transport and storage inside the body.
- ❖ Fat & water soluble vitamins: their absorption, Biochemical functions, Metabolism & Antagonists.
- ❖ Transport of nutrients across cell membrane.
- ❖ Emerging concepts in human nutrition.

Unit - III

a. Life Span Nutrition

- ❖ Nutrition in Pregnancy & Lactation, Infancy, Childhood
- ❖ Nutrition during adolescents and adulthood.
- ❖ Geriatric & Sports Nutrition.
- ❖ Assessment of nutritional status of community.
- ❖ Various nutritional intervention programmes for improving health of the society.

b. Clinical & Therapeutic Nutrition

- ❖ Dietetics, factors in patients care & rehabilitation Modification of normal diet.
- ❖ Diet in relation to fever & infections, Gastro intestinal tract disease, disorders of liver and Gall bladder, Renal disease, Acute and Chronic diseases of heart, Metabolic disorders, obesity and under nutrition.

Unit – IV

a. Advanced Food Science

- ❖ Evaluation of food by sensory and objective methods
- ❖ Colloidal chemistry, Fortification and Enrichment of foods
- ❖ Sugar, Starch, Milk, Egg and Pulse Cookery.
- ❖ Vegetables & fruits, fats & Oils, Meat, Fish & Poultry.
- ❖ Food standards & Laws, Foods Adulteration.
- ❖ Genetically modified foods and its benefits.

b. Food processing and Technology

- ❖ Principles in food processing operations: Thermal, Refrigeration, Freezing and Dehydration, Ionizing Radiations, Chemical Preservation and Fermentation.
- ❖ Processing technology of foods and Nutritional implications for cereals & pulses, fruits & vegetables, Milk and its products, Meat, Fish, Egg, Fats & Oils, Spices and Food Additives.

Syllabus for Integrated Ph.D Entrance test

Subject: Home Science (Dietetics & Clinical Nutrition)

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- ❖ Endocrine glands, muscles and skeletal system, sensory organs, immunity,
- ❖ Reproduction and Development.

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Unit – IV

a. Institutional Management

- ❖ Food – Service, Management, Selection, Storage and Production
- ❖ Sanitation & Safety of food service establishments
- ❖ Physical layout and equipment
- ❖ Functional Management

b. Nutrition in Critical Care

- ❖ Procedures of Nutritional Screening and Nutritional Status Assessment of the critically ill
- ❖ Conventional feeding method of Nutritional Support for Critically ill Patients.
- ❖ Tube, Parenteral and Transitional methods of nutritional support for critically ill patients
- ❖ Nutritional Requirements and Special Diets in Critical Care

Syllabus for Integrated Ph.D Entrance Test

Subject: Home Science (Human Development)

Unit I

a. Methods of Studying Human Development

- ❖ Importance, Trends and challenges in studying Human Development
- ❖ Observation, Interview, Questionnaire & Case study methods
- ❖ Socio-metric & Psychometric Methods
- ❖ Objective, Subjective and Projective techniques

b. Early Childhood Care and Education

- ❖ Principles of early childhood care and education.
- ❖ Historical trends and contribution of agencies and thinkers to the development of ECCE
- ❖ Concept of formal, non-formal and play way methods. Types of preschool programme
- ❖ Organization and Programme Planning of Pre-school centres
- ❖ Activities for ECCE: Language, Music, Mathematics, Science and Social Studies.

Unit – II

a. Advanced Study in Human Development-I

- ❖ Principles, developmental tasks and basic concepts of development.
- ❖ Prenatal development and Infancy
- ❖ Early and late Childhood Years
- ❖ Adolescence

b. Management of Programmes for Children and the Family

- ❖ Management – Meaning, characteristics, nature, importance, functions, principles & Managerial skills
- ❖ Management process, Staff development
- ❖ Programmes and services for children and families
- ❖ Welfare and its Historical Perspective
- ❖ Managing Programmes for Children and Family

Unit -III

a. Advanced Study in Human Development -II

- ❖ Youth/Young Adulthood

- ❖ Middle Adulthood
- ❖ Late Adulthood
- ❖ Old Age
- b. Study of persons with disabilities**
- ❖ Understanding Disability
- ❖ Skeletal disorders and Sensory Impairments
- ❖ Intellectual and Emotional Impairments
- ❖ Physical disorders and Overview of Persons with Disabilities

Unit -IV

a. Development of Creativity

- ❖ Historical development ,Conceptual frame work , types, process & stages of creativity.
- ❖ Approaches and perspectives to the study of creativity
- ❖ Creativity and developmental Factors
- ❖ Identification & Development of Creativity

b. Principles of Guidance and Counselling

- ❖ Guidance: Concept, Objectives, Characteristics, Need and Principles.
- ❖ Counselling: Concept, Levels, Purpose, Need, Principles and Elements.
- ❖ Ethical and Legal Guidelines. Basic Approaches and theories
- ❖ Need for counseling for parents & children at Different stages of development
- ❖ Guidance and counseling of special groups

Syllabus for Integrated Ph.D Entrance Test

Subject: Home Science(Extension & Communication)

Unit-1

a. COMMUNICATION TECHNIQUES

Communication, Audio Visual Aids, Communication and Extension Approaches, Mass Media Approaches of Communication.

b. METHODS FOR COMMUNITY PARTICIPATION

Conceptual Specification, Space Related PRA Methods, Time Related PRA- Methods, PRA Relation Methods

Unit-2

a. EXTENSION PROGRAMME PLANNING & DESIGN

Programme Planning, Steps of Programme Planning Programme implementation. Extension Evaluation

b. EXTENSION EDUCATION SYSTEM

Conceptual Analysis, Extension Models and Approaches National Extension System Support Structure and their Functions

Unit-3

a. MANAGEMENT OF HUMAN SERVICE ORGANIZATIONS

Concept and Management of Human Service Organizations, Working for the Service of Children, Organizations Working for the Service of Youth and Groups with Special Needs. Assessment of Human Services Organizations & Concept of Volunteerism.

b. EXTENSION MANAGEMENT

Extension & Personal Management. Organizing and planning in Extension Management. Staffing and Leading in Extension Management. Controlling and Efficiency of Personal in Extension Management.

Unit 4

a. GENDER AND DEVELOPMENT

Gender and Development, Violence against Women, Policies and programmes for women's development and support system, Legal Empowerment

b. TRAINING AND DEVELOPMENT

Training and Learning, Learning Methodologies. Trainers and Trainee Interface. Training Process, Organizational Factors and Training.