FACULTY OF SCIENCE

SYLLABI

FOR

B.Sc. HOME SCIENCE- DIETETICS

2\textsuperscript{ND} & 3\textsuperscript{RD} YEAR

EXAMINATIONS, 2012

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### B.Sc. Home Science – 2nd Year – Dietetics

<table>
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<tr>
<th>Code</th>
<th>Paper/Subject</th>
<th>Credit Hours</th>
<th>Marks</th>
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<td>1.</td>
<td>Applied Life Sciences</td>
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<td>A.) Botany</td>
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<td>B.) Zoology</td>
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<td>Applied Physical Sciences</td>
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<td>A.) Chemistry</td>
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<td>B.) Physics</td>
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<td><strong>3.</strong></td>
<td>Environmental Education</td>
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<td>4.</td>
<td>Applied Nutrition</td>
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<td>5.</td>
<td>Nutritional Management in Health and Disease</td>
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<td>6.</td>
<td>Food Microbiology, Hygiene and Sanitation</td>
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<td>7.</td>
<td>Institutional Food Service Management</td>
<td>3</td>
<td>2</td>
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<td>8.</td>
<td>Physiology &amp; Promotive health</td>
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<td>9.</td>
<td>Physical Education, Music &amp; Dance</td>
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<td><strong>TOTAL</strong></td>
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**Qualifying Paper**
Objectives:

- To introduce basic concepts of gardening
- To impart knowledge of propagation of plants by seeds and by other vegetative methods.
- To impart knowledge about plants which are of economic importance.
- To impart knowledge about growing vegetables, fruits & flowers.

Unit-I

- Types of soil and soil operations- Tillage, Drainage, Hoeing, Mulching and Irrigation
- Elementary knowledge about Mushroom cultivation

Unit-II

- Principle and planning of kitchen garden.
- Principle and planning in laying out of a garden.
- Cultivation and Care of Lawns & Hedges.

Unit-III

- Seed Propagation.
- Vegetative propagation by artificial methods like: cutting, layering, grafting & budding.
- Elementary Knowledge about plant tissue culture.
- Elementary knowledge about cultivation, maintenance and care of Bonsai.

Unit-IV

- NAME DISTRIBUTION, PART USED & USES OF THE FOLLOWING:
  i. Fibres: Cotton, Jute & Flax.
  ii. Beverages: Tea, Coffee & Cocoa
  iii. Oils: Coconut, Mustard, ground Nut, Castor Oil & linseed.
  iv. Medicinal Plants: Holy basil, Mint, Ashwagandha, Amaltas, Aloe Vera & Amla
  vi. Condiments and Spices: Clove, Cinnamon, Cumin Cardamom, Coriander, Fennel, Pepper & Turmeric.
B.Sc. (Home Science) Part-II

APPLIED LIFE SCIENCES
PAPER-A: BOTANY (PRACTICAL)

Paper Time- 3 Hrs.
Teaching Period: 4 Hrs/week

Max. Marks: 50
Exam Theory: 45
Internal Assessment: 05

1. Preparation of temporary slides of Rhoeo and Onion peel to study the cell structure, stomata and chloroplast.

2. Study of Garden implements (Garden Tools & accessories.)

3. 3.1. To prepare a pot for sowing seeds and study different methods of seed sowing.
3.2. To prepare a seed bed for raising seedlings.
3.3. To prepare a bed of potato sowing and cultivation
3.4. To prepare a bed for cultivation vegetables like onion, cauliflowers, Brinjal & tomato.
3.5. To prepare a pot of repotting for chrysanthemum.

4.1. Propagation of roses by cutting and budding.
4.2. Propagation by whip & tongue grafting.
4.3. Propagation by wedge grafting.
4.4. Propagation of crotons & coleus by cutting.


6. Economy Botany: Identify sketch & write short notes on the following:
   6.4. Medicinal Plants: Tulsi, Mint, Amla, Ashwagandha, Aloe Vera & Amaltas.
   6.5. Condiments & spices: Clove, cardamom, Cinnamon, Cumin, Coriander, fennel, pepper & Turmeric.

- Herbarium: Collection of 25 specimens of ornamental plants.
- Visit to herbal parks and forest to study flora in natural habitat, if possible.
INSTRUCTIONS TO THE EXAMINER:

1. Total nine questions to be set. At least two from each unit.
2. Out of which five questions to be attempted.
3. One compulsory questions can be set covering the whole syllabus. Which can be fill in the blanks/Multiple choice/objective type/one word answers etc.

- Herbarium: Collection of 25 specimens of ornamental plants.
- Visit to Herbal parks and forests to study flora in natural habitat, if possible.

Recommended Readings:

1. B. Chaudhary: Vegetables(National Book of India, New Delhi, 1979)
2. Breikell C. 1993, Step by Step Gardening Technique( Royal Horticultural Society’s Encyclopaedia of Practical Gardening)
5. Gopala.swamianger K.S 1991 Complete Gardening in India (Messers Nagraj and Co. Madras)
11. Sham Singh: Fruit Cultivation in India.
B.Sc.( Home Science) Part-II

APPLIED LIFE SCIENCES

(b) ZOOLOGY

THEORY

Time : 2 hours Teaching per week

Exam: 3 Hours

Max. Marks : 50

Paper:45

Int. Assessment: 05

Objectives: To provide knowledge regarding the application of Zoology in day to day life.

UNIT-I

1. An elementary study of the following animals as indicated:
   - Malaria parasite: Detail life history and mode of transmission
   - Entamoeba histolytica, Trypanosoma gambiense: Habit distribution, disease produced and mode of transmission.

2. External feature life history and economic importance of the following:
   - Taenia solium, Ascaris lumbricoides,

3. External feature life history and economic importance of Earthworm

Unit-II

4. Pest
   - Life history and economic importance of insect pest: Rice weevil sytophillus, Rizopertha, Gram dhora, and Tribolium.
   - Control of insect pest: Cockroach, Termite.
   - Control of non-insect pest: Rat.

5. Economic important insect
   - Habit habitat and life history only: Honey bee, Silk moth
   - Habit habitat and life history only: Mosquito( Culex & Anopheles).

6. Economic Zoology: Elementary knowledge of the following
   - Apiculture,
   - Sericulture,
   - Vermiculture
UNIT-III

7. Human Genetics:

- Structure and Function of DNA & RNA
- Structure of human Chromosomes their variation.
- Genetic basis of blood groups (ABO)
- Autosomal and sex chromosomal abnormalities.
- Elementary knowledge of Genetic basis of common hereditary diseases such as Haemophilia, Colorblindness, Mongolism, Diabetes, Thalassemia.
- Genetic counseling.

8. An elementary knowledge of Gene, Genome and Genomic.
9. An elementary knowledge of Genetic engineering & Transgenic product (Bt-Products, Golden Rice, Flavr-Savor Tomato).
10. An elementary Knowledge of Polymerase Chain Reaction (PCR)

Unit-IV

11. An elementary knowledge of Biotechnology.
12. An elementary knowledge of Stem cell research.
13. An elementary knowledge of AIDS and its control.
15. An elementary Knowledge of Swine Flu.

APPLIED LIFE SCIENCES

(b) ZOOLOGY: PRACTICAL

Time: 2 hour teaching per week  Max. Marks: 50

Exam: 3 Hours  Paper: 45

Int. Assessment: 05

1. Phylum based identification and Economic importance of Invertebrates and Vertebrates present in the laboratory.
2. Identification of slides and specimens: Malaria parasite (Plasmodium), Fasciola hepatica (life stages also), Ascaris, Taenia solium, . Available insect pest and their life stages.
3. Preparation of temporary mounts of mouth parts of cockroach
4. Visit to Poultry farm.
5. Blood grouping (ABO)
6. Demonstration of Extraction of DNA and staining it with Ethidium Bromide.
7. Demonstration of Polymerase Chain Reaction (PCR)
10. Project report on field visit to renowned laboratory/poultry
Books Recommended

16. Naidu, P.M.N.: Poultry keeping in India (1976), ICAR

INSTRUCTIONS FOR EXAMINER:

1. Total nine questions to be set (at least two from each unit) which also includes
2. One compulsory question containing 9 short questions of 1 marks each, covering
   the whole syllabus.
3. All the questions carry 9 marks each.

INSTRUCTIONS FOR STUDENTS:

1. Five questions to be attempted.
2. At least one from each unit need to be attempted.
3. One question (containing 9 Short answer questions) is compulsory as mentioned
   in the question paper.
B.Sc. (Home Science) Part-II

APPLIED PHYSICAL SCIENCES

PAPER – A: CHEMISTRY (THEORY)

Teaching Period: 2 hrs/week      M. Marks: 50
Exam Time: 3 hrs.       Paper: 45
Int. Ass.: 05

Unit – I

Essentials of Chemistry

- Symbols, formulae, valency and variable valency, elementary idea of empirical formulate and molecular formulae (no numerical) definition of atomic weight and molecular weight.
- Chemical equation and reaction: Parts, types, essential of chemical equation, balancing of equation by hit and trial method and their removal, exothermic and endothermic, catalytic and reversible reactions.
- Chemical Bonding: Definition of chemical bond, cause of chemical combination, types of chemical bonds-ionic bond, covalent bond, co-ordinate bond (def & simple examples based on electron dot picture) examples include H2, C12, HCl, O2, NH3 H2O, CH4, C2H2 MgF2, CaO, NH4+, H3O+.

Unit – II

- Elementary idea about normality, formality, morality, strength of solution, mole fraction and ppm.
- Elementary idea about pH of water, hard water (causes and types) heavy water with its uses.

Unit – III

- Properties and uses of CH4, C2H2.
- Alcohols – Properties and uses of ethyl alcohol, idea about methylated spirit.
- Properties and uses of Acetic acid.

Unit – IV

- Cosmetics: - Brief study and elementary idea about ingredients- cold cream, vanishing cream, lipstick, mascara, depilatories and dentifrices. Use of fluoride toothpaste and chemistry of cold cream.
- Chemistry in medicine- Anti pyritics, Sulpha drugs and anti malarial drugs.
- Polymers – Definitions and classification.
- Polymers in textiles: Chemistry of synthetic fibers- Nylon, Polyester and Acrylic fibers.
- Fertilizers: - Nitrogen, Potassium and Sulphur.
- Elementary idea about paints, varnishes, lacquers, enamels, emulsion paints, pigments valve concentration, failure of paint film.
Instruction to Examiners

• Total nine questions to be set out of which five to be attempted (two questions from each unit)

• One compulsory question covering the whole syllabus may be set in the form of objective / fill in the blanks/ short notes etc.

• Each question carries 9 marks.

• Internal choice can also be given.

APPLIED PHYSICAL SCIENCES

PAPER – A:CHEMISTRY (PRACTICAL)

Teaching Period: 2 hrs/week      M. Marks: 50
Exam Time: 3 hrs.       Paper:       45
Int. Ass.:   05

1. Preparation of vanishing cream and cold cream.
2. Preparation of washing powder and liquid soap.
3. Preparation of antiseptic ointment (Sulphur, General and Boric)
4. Elemental detection of organic compound- nitrogen, halogen and Sulphur.
5. Determination of melting point and boiling point of organic compounds.
6. Analysis of amide group, amine group and carbohydrate group in given organic compound.
7. To determine the normality and strength of given alkali solution.
10. Visit to industrial unit if permissible

Suggested books:

Applied chemistry for Home Science and Allied science by Thanhamm Jacob
NCERT books of + 1 and + 2.
Engineering books by Jain and Jain.
Modern approach to Chemistry Volume – 2.
B.Sc. Home Science Part-II

APPLIED PHYSICAL SCIENCES

PAPER-B: PHYSICS (THEORY)

Teaching Time : 2 hours/ week
Exam Time : 3 hours

Total marks : 50
Paper (Theory) : 45
Internal Assessment : 5

CONTENTS

Unit-I

Mechanics:

- Intermolecular forces, Types of intermolecular forces – Force of Adhesion & Force of Cohesion, Molecular range, Sphere of Influence, Surface film, Surface tension, molecular theory of surface tension, detergents and surface tensions, common illustrations/ applications of surface tension.
- Definition of Capillary and Capillarity, practical applications of Capillarity in everyday life.

Unit-II

Sound:

- Define – Periodic motion, Oscillatory motion, Vibration, Oscillation, Time period, Frequency, Amplitude, Wave motion and Wave length.
- Brief idea about transverse and longitudinal wave motion, difference between the two, ν-n relation (simple numericals with direct substitution).
- Simple idea about superposition of waves, superposition principle and stationary waves, laws of vibrating strings, free, forced & resonant vibrations.
- Short notes on Human voice organ, sound insulation, hearing aids, acoustics of buildings.

Unit-III

Atomic Physics

- Photoelectric effect, Experimental study of photo electric effect, Effect of intensity, potential and frequency on photo electric current, laws of photoelectric emission, photo electric cell and some of its applications.
- Introduction to LASER & MASER and some of their applications.
Unit-IV

Nuclear Physics

- Atomic Nucleus – Nuclear size, Nuclear density and Nuclear charge, Isotopes, Isobars and Isotones, Nuclear force and some features of Nuclear force, Elementary idea about radio activity – Natural & Artificial, Radioisotopes and their uses in medicine, industry, agriculture and dating.

- Nuclear fission and fusion, uncontrolled and controlled chain reactions, nuclear reactor – principle, construction & working, some uses/applications of Nuclear Reactor, Radiation hazards and safety measures.

Instructions to Examiner

- Total nine questions to be set, out of which five to be attempted (Two questions from each unit).

- One compulsory question covering the whole syllabus may be set in the form of objective type/fill in the blanks/short notes etc.

- Each question carries 9 marks.

- Internal choice can also be given.

APPLIED PHYSICAL SCIENCES

PAPER-B: PHYSICS (PRACTICALS)

<table>
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<tr>
<th>Teaching Time</th>
<th>Total marks</th>
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<tr>
<td>2 hours/week</td>
<td>50</td>
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<tr>
<td>Exam Time</td>
<td>Paper (Practical)</td>
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<td>3 hours</td>
<td>45</td>
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<td>Internal Assessment</td>
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1) Measurement of diameter of a small spherical body using Vernier Callipers.

2) Measurement of area, volume and total surface area of rectangular body using Vernier Callipers.

3) Measurement of diameter of a Pen/ Pencil using a screw gauge.

4) Measurement of temperature in °C of a liquid at room temperature and high temperature and to convert to temperature in °F.

5) Measurement of temperature of human body in °C and °F.

6) To verify first law of transverse vibrations in a string using sonometer.

7) To verify second law of transverse vibrations in a string using sonometer.
8) To find velocity of sound at 0°C using first resonance position and by applying end correction.

9) To find velocity of sound at 0°C using two resonance positions.

10) To find resistance and power of a glowing bulb and to calculate energy consumed by it in given hours.

11) To verify Ohm’s law.

**Books Recommended**

1) A very M., Household Physics.

2) Duggal & Wadhawan, Principles of Physics (XI, XII).

3) Gomber & Gogia, Pradeeps Fundamental Physics (XI, XII).

4) Gupta S.K., Modern’s ABC of Physics (XI, XII).

5) Khanna & Bedi, Textbooks of Sound.

6) Lal S., Fundamental Physics (XI, XII).

7) Mohindroo K.K., Basic Concepts of Physics.


9) Gupta S.C., New Fundamental Practical Physics.

10) Gupta S.K., ABC of Practical Physics (XI, XII).

ENVIRONMENT EDUCATION

(25 Hrs. course)

1. Environment Concept:
   Introduction, concept of biosphere – lithosphere, hydrosphere, atmosphere; Natural resources – their need and types; Principles and scope of Ecology; concepts of ecosystem, population, community, biotic interactions, biomes, ecological succession.

2. Atmosphere:
   Parts of atmosphere, components of air; pollution, pollutants, their sources, permissible limits, risks and possible control measures.

3. Hydrosphere:
   Types of aquatic systems; Major sources (including ground water) and uses of water, problems of the hydrosphere, fresh water shortage; pollution and pollutants of water, permissible limits, risks and possible control measures.

4. Lithosphere:
   Earth crust, soil – a life support system, its texture, types, components, pollution and pollutants, reasons of soil erosion and possible control measures.

5. Forests:
   Concept of forests and plantations, types of vegetation and forests, factors governing vegetation, role of trees and forests in environment, various forestry programmes of the Govt. of India, Urban Forests, Chipko Andolan.

6. Conservation of Environment:
   The concepts of conservation and sustainable development, why to conserve, aims and objectives of conservation, policies of conservation; conservation of life support systems – soil, water, air, wildlife, forests.

7. Management of Solid Waste:
   Merits and demerits of different ways of solid waste management – open dumping, landfill, incineration, resource reduction, recycling and reuse, vermicomposting and vermiculture, organic farming.

8. Indoor Environment:
   Pollutants and contaminants of the in-house environment; problems of the environment linked to urban and rural lifestyles; possible adulterants of the food; uses and harms of plastics and polythene; hazardous chemicals, solvents and cosmetics.

9. Global Environmental Issues:
   Global concern, creation of UNEP; Conventions on climate change, Convention on biodiversity; Stratospheric ozone depletion, dangers associated and possible solutions.
10. **Indian Laws on Environment:**
Indian laws pertaining to Environmental protection: Environment (Protection) Act, 1986; General information about laws relating to control of air, water and noise pollution. What to do to seek redressal.

11. **Biodiversity:**
What is biodiversity, levels and types of biodiversity, importance of biodiversity, causes of its loss, how to check its loss; Hotspot zones of the world and India, Biodiversity Act, 2002.

12. **Noise and Microbial Pollution:**
Pollution due to noise and microbes and their effects.

13. **Human Population and Environment:**

14. **Social Issues:**
Environmental Ethics: Issues and possible solutions, problems related to lifestyle, sustainable development; Consumerisms and waste generation.

15. **Local Environmental Issues:**
Environmental problems in rural and urban areas. Problem of Congress Grass & other weeds, problems arising from the use of pesticides and weedicides, smoking etc.

**Practicals:**
Depending on the available facility in the college, a visit to vermicomposting units or any other such non-polluting eco-friendly site or planting/caring of vegetation/trees could be taken.

**Note:** Above 15 topics to be covered in 25 hour lectures in total, with 2 lectures in each topics from 2 to 11 and one each for the topics 1 and 12 to 15.

- **Examination Pattern:**
Fifty multiple choice questions (with one correct and three incorrect alternatives and no marks deduction for wrong answer or un-attempted question)
- All questions compulsory i.e. no choice.
- Qualifying marks 33 per cent i.e. 17 marks out of 50.
- Total marks : 50.
- Duration of Examination : 60 minutes.
- Spread of questions : Minimum of 2 questions from each of the topics 1 and 12 to 15. Minimum of 4 questions from topics 2 to 11.
Note:–
1. Each theory paper will be of three hours duration.
2. Question paper will have four section/units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question.(Total of five question)
4. All questions may carry equal marks, unless specified.

Objectives
This course will enable the student to–
1. Estimate energy expenditure and energy requirements.
2. Know food sources of various nutrients
3. Plan and prepare recipes rich in various nutrients.

Unit-I
1. Concept and definition of terms Nutrition, Malnutrition and Health.
   Brief History of Nutritional Science, Scope of Nutrition


3. Body Composition and changes through the life cycle.

Unit-II

5. Proteins - Assessment of Protein quality (BV, PER, NPU) Digestion and Absorption, factors affecting protein bio-availability including antinutritional factors, Requirement, Deficiency.

6. Lipids- Digestion and absorption, Intestinal resynthesis of triglycerides Types of fatty acids, role and nutritional significance.
Unit- III

7. Carbohydrates – Digestion and Absorption, Blood glucose and effect of different carbohydrates on blood glucose, Glycemic Index.

8. Dietary Fibre – Classification, composition, properties and nutritional significance.


Unit – IV

10. Vitamins – Physiological role, bio availability and requirement, sources, deficiency and excess (Fat Soluble and Water Soluble).

11. Water – Functions, requirements.

12. Methods of processing for the enhancement of nutritional quality of diets by:
   
   Supplementation.
   Germination
   Fermentation
   Fortification
   Eurichment

13: Food Adulteration: Definition and types of adulterants used in different foods.
B.Sc. (Home Science) Part-II

APPLIED NUTRITION (PRACTICAL)

Maximum Marks: 50  
Paper marks: 45  
Int. Assessment: 05  
Teaching Pds: 2/week

Instructions for Paper Setter:
1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voice will be of 5 marks each (Total = 10 marks)

Objectives

This course will enable the student to-

1. Estimate energy expenditure and energy requirements.
2. Know food sources of various nutrients
3. Plan and prepare recipes rich in various nutrients.


2. Demonstration of BMR apparatus.

3. Categorization of foods as rich, moderate and poor sources of energy and nutrients.


Reference:
- WHO Technical Reports Series for different Nutrients.
B.Sc. (Home Science) Part-II

NUTRITIONAL MANAGEMENT IN HEALTH AND DISEASE
(THEORY)

Maximum Marks 75
Paper Marks: 65
Int. Assessment 10
Teaching Pds: 03/ weeks

Note:-
1. Each theory paper will be of three hours duration.
2. Question paper will have four section/ units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question. (Total of five question)
4. All questions may carry equal marks, unless specified.

Objectives

This course will enable the student to

1. Understand the concept of an adequate diet and the important of meal planning.
2. Know the factors affecting the nutrient needs during the life cycle and RDA for various age groups.
3. Gain knowledge about dietary management in common ailments.

Unit- I

1: Definition of health and nutrition.

Dimensions of Health (physical, psychological, emotional)

2. Nutrition through the life Cycle.

(at different activity and Socio-economic levels)

Requirement, nutritional problems, food selection.

a. Adulthood
b. Pregnancy
c. Lactation
d. Infancy
e. Preschool
f. Adolescence
g. Old age
Unit – II

3 Energy Requirements – Factors affecting energy requirements

BMR, Activity, age, climate, diet-included thermo genesis (SDA), physiological conditions

4. Concept of nutritionally adequate diet and meal planning.

a. Importance of meal planning
b. Factors affecting meal planning-
   Nutritional, Socio-cultural, Religious, Geographic, Economic
   Availability of time and material resources

Unit- III

6. Principles of diet therapy

Modification of normal diet for therapeutic purpose, Full diet, Soft diet, Fluid diet, Bland diet.

7. Nutritive Modifications of Diets

Unit – IV

8. Nutritional management in Gastrointestinal Disorders

a. Diarrhoea
b. Constipation

9. Nutritional Management in Energy Imbalance

a. Obesity
b. Underweight

10. Nutritional Management in Fevers

a. Long - term fever
b. Short – term fever
B.Sc. (Home Science) Part-II

NUTRITIONAL MANAGEMENT IN HEALTH AND DISEASE
(PRACTICAL)

Maximum Marks 50
Paper Marks: 45
Int. Assessment 05
Teaching Pds: 02/ weeks

Instructions for Paper Setter:
1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voice will be of 5 marks each (Total = 10 marks)

Objectives
This course will enable the students to-

1. Plan and prepare nutritionally adequate diets in relation to age, activity levels, physiological state and socio-economic status.

2. Make the therapeutic modifications of normal diet for common disease conditions.

1: Planning and preparation of diets for different age groups at different socio-economic and activity levels in relation to special nutrient requirements.
   a. Adult
   b. Pregnancy
   c. Lactation
   d. Infancy
   e. Pre - school child
   f. School child
   g. Adolescence
   h. Old age

2: Planning and preparation of therapeutic and modified diets.
   a. Soft diet
   b. Fluid diet
   c. Bland diet
   d. High protein diet
   e. High fibre
   f. Low fibre
   g. Calorie – restricted

Reference:
B.Sc. (Home Science) Part-II

FOOD MICROBIOLOGY, HYGIENE AND SANITATION (THEORY)

Maximum Marks 75
Paper Marks: 65
Int. Assessment 10
Teaching Pds: 03/ weeks

Note
1. Each theory paper will be of 3 hours duration.
2. Question paper should cover all the topics of syllabus.
3. There will be 8 questions in all.
4. Section A and Section B will have 4 questions each. Question no. 9 will be compulsory and cover entire syllabus.
5. The students are to attempt two questions each from Section A and Section B. and question no. 09 will be compulsory.
6. The students are required to attempt five questions in all.

Objectives:
This course will enable the students to:-

1. Understand the nature of micro organisms involved in food-spoilage, food-infections and intoxications.
2. Understand the principles of various methods used in the prevention and control of micro organisms in foods.
3. Understand the criteria for microbiological safety in various food operations to avoid public health hazards due to contaminated foods.

SECTION-A

1. Discovery & history of microbiology, sub-disciplines of microbiology.
2. The prokaryotic cell structure: introduction to important micro-organisms in foods.
3. Cultivation of micro organisms- Nutritional requirements of micro organisms, types of media used, methods of isolation.
4. Primary sources of micro organisms in foods: Physical and chemical methods used in the destruction of micro organisms (Sterilization and Disinfection)

SECTION-B

6. Food Spoilage:
Contamination and micro organisms in the spoilage of different kinds of foods and their prevention: Cereal and cereal products, vegetables and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and milk products, Canned foods.
7. Public health hazards due to contaminated foods:
Food borne infections and intoxication- symptoms, mode and sources of
transmission and methods of prevention of *Clostridium botulinum* F.P,
Staphylococcal F.P. *Clostridium perfringens* gastroenteritis. Salmonellosis,
Shigellosis, Diarrhoea.
8. Microbes used in food biotechnology. Fermented foods and their benefits,
probiotics.

**References:**

Tata Mc Graw-Hill
Nostrand Reinhold Company.
5. A Textbook of Microbiology- Dubey R.C., Maheshwari, D.K.- Revised
edition 2005, S. Chand and company Ltd.
2006, S. Chand and Company Ltd.
INSTITUTIONAL FOOD SERVICE MANAGEMENT (THEORY)

Maximum Marks 75  
Paper Marks: 65  
Int. Assessment 10  
Teaching Pds: / weeks

Note:-
1. Each theory paper will be of three hours duration.
2. Question paper will have four section/units. Paper setter will set a total of nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus.
3. Student will attempt one question from each unit and the compulsory question. (Total of five question)
4. All questions may carry equal marks, unless specified.

Objectives

This course will enable the student to-

1. Gain knowledge of the types of food services in India and factors which have led to their development.
2. Understand the special characteristics of food service establishments.
3. Know the types of resources required for managing food outlets.
4. Learn manpower management techniques.
5. Understand human relations and behavior at work.
6. Know the types of costs involved and how to control them.

Unit- I

1. Development of Food Service Institutions in India. Characteristics of Food Service Establishments. Effects of environmental changes on different types of establishments.

2. Basic factors involved in successful institutional meal planning. Types of Food Service- Formal and Informal

Unit- II

3. Organisation- definition and types.
4. Management-definition and function-tools of management.

Unit - III

Human Relations. Trade Union Negotiation and settlement.
6. Cost and Management Accounting: Definition and Scope, costs and their control, management accounting, profit planning.

**Unit - IV**

7. Physical plant- Location, Floor plans, Space Allowance, Kitchen Units- Storage, Preparation, Serving and Dish Washing units.


**References:**


**INSTITUTIONAL FOOD SERVICE MANAGEMENT (PRACTICAL)**

**Maximum Marks: 50 (Internal Only)**

**Teaching Periods: 2 hrs/week**

- Use and care of kitchen equipment, table setting and service.
- Portion cooking- Weights & Measures- their equivalence.
- Standardization of recipes for quantity cookery.
- Cooking & service of quantity meals/ recipes to small groups.
B.Sc. (Home Science) Part-II

PHYSIOLOGY AND PROMOTIVE HEALTH (THEORY)

M. Marks: 80
Paper Marks: 70
Int. Ass.: 10
Periods: 3/ week

Note
1. Each theory paper will be of 3 hours duration.
2. Question paper should cover all the topics of syllabus.
3. There will be 8 questions in all.
4. Section A and Section B will have 4 questions each. Question no. 9 will be compulsory and cover entire syllabus.
5. The students are to attempt two questions each from Section A and Section B. and question no. 09 will be compulsory.
6. The students are required to attempt five questions in all.

Objectives:

- To gain knowledge about health, hygiene, common diseases.
- To study about environment pollution (air and water).
- To understand basic functioning of various systems of body.

Section A

PROMOTIVE HEALTH

1. Introduction to Health
   - Definition and Concept of health
   - Personal Hygiene
   - Hygiene in Kitchen and Home- Control and eradication of flies, Cockroaches, rodents and other pests. Use of Disinfectants in case of working surfaces, kitchen equipments, dish washing, hand washing.
2. Air
   - Air and its impurities
3. Diseases
   - Communicable diseases- brief study of diseases giving the cause, mode of spread, incubation period, symptoms and control.
   - Diseases caused by ingestion- typhoid and poliomyelitis.
   - Diseases caused by indigestion- Cholera.
   - Diseases caused by inhalation- Mumps.
     - Measles
     - Pulmonary TB
     - Chickenpox
   - Diseases caused by Vectors
     - Malaria
   - Sexually Transmitted disease
AIDS
- Food Hygiene- Precautions to be taken during preparation, serving and display of food. Good food handling habits.

4. Water supply- sources of contamination, purification of water for home and community. Physical, Chemical and Bacteriological examination of water.

Section B

PHYSIOLOGY

5. Cardiovascular System
- Blood: Composition and Function
- Blood groups and related diseases like hemophilia and thalassemia.
- Heart: Function and functioning of heart.

6. Digestive System
- Blood: Composition and Functions
- Blood groups and related diseases like hemophilia and thalassemia.
- Heart: Function and functioning of heart.

7. Reproductive System
- Brief outline of sex organs and glands (Uterus, Fallopian tube, ovaries and mammary gland, testes, penis and prostate gland).
- Menstrual cycle
- Ovarian Cycle
- Contraception- importance of contraception
- Methods of contraception

8. Endocrine glands
- Function of pituitary, throid, parathyroid, pancreas and adrenal glands.

9. Urinary System
- Structure and functions of Kidney

10. Respiratory System
- Structure and functions of lungs.

11. Immunology
- Vaccines (for common diseases including immunization schedule).

References:

PHYSICAL EDUCATION

3 hrs./week               Marks- 50

Chapter – 1

Athletics: - What is difference between athletic and athletic,. Brief knowledge of the track and field events.
Middle Distance Running: 800 mtr and 1500 mtr race
   a.) Technique for start, finishing and running in race.
   b.) Fouls at start, finishing and running in race

Chapter- 2

Jumps, Long Jump or High Jumps
   a.) Dimension of the long jump or high jump pit
   b.) Technique
   c.) Foul of jumps

Chapter – 3

Anyone playing for the following games;
   a.) Volley ball
   b.) Badminton
   c.) Kho- Kho
   d.) Lawn Tennis

Chapter- 4

Yoga- Any three assans from the following:-
   a.) Dhanurasan
   b.) Chakrasan
   c.) Mayur asan
   d.) Sarvang asan
   e.) Bhujang asan
   f.) Tad asan

REFERENCES:-
   1. Textbook of Physical Education and sports by Vishwas Publishers
   2. Rule book of Athletics by Amateur Athletics Federation of India
   3. Rule book of Badminton by Amateur Athletics Federation of India
   4. Rule book of Volley by Amateur Athletics Federation of India
   5. Rule book of Lawn Tennis by Amateur Athletics Federation of India
   7. Yoga and assans by Swami Ramdev
B.Sc. (Home Science) Part-II
DANCE (PRACTICAL)

KATHAK

1. TEEN TAL

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2. Chautal

tatkar in single & dugun layakari’s

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3. 2 Gatnikas in Teental

4. Practical demonstration of 10 Asamyuktta hasta and 10 samyuktta hasta

Music (Vocal)

B.Sc Home Science part – II (Practical)

Marks 50

1. One Vilambit and three fast khayals with alap and tans of the following ragas: Bhimpalasi, Bhairav, Bihag.

2. Sargam geet in Raag Bhimpalasi

3. The following talas with ekgun & dugan with bols on hands: kaharwa, roopak, tilwara

4. Five alankars are to sing in bilawal and bhairav thhat.
## B.Sc.( Home Science)Dietetics- 3\(^{rd}\) year

<table>
<thead>
<tr>
<th>Code</th>
<th>Paper/Subject</th>
<th>Credit Hours</th>
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<td>Nutritional Biochemistry</td>
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<td>2.</td>
<td>Diet Therapy</td>
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<td>Food Cost and Quality Control</td>
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<td>4.</td>
<td>Trends in Nutrition</td>
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<td>Public Health and Epidemiology</td>
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<td>6.</td>
<td>Nutritional Assessment and Surveillance</td>
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<td>7.</td>
<td>Personal Empowerment and Entrepreneurship Development</td>
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|            |                  | 35|   |       | 875 |     |       |
B.Sc. Home Science (Dietetics)
NUTRITIONAL BIOCHEMISTRY (THEORY)

Total Marks : 75
Paper : 60
Internal Assessment : 15

Teaching periods: 3 hrs/ week

Instructions for Paper Setter:
1. Each theory paper will be of three hours duration.
2. Question paper will have four sections.
3. A total of Nine questions comprising of two questions from each Section and one compulsory questions of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each Section and the compulsory question.

Focus
The Course lays the foundation for understanding the functioning of metabolic processes at cellular level, and the role of various nutrients in these processes.

UNIT – I
Carbohydrates – Definition, classification, structure and properties of
- Monosaccharaides – glucose, fructose, galactose
- Disaccharides – maltose, lactose, sucrose
- Polysaccharides – Dextrin, starch, glycogen

Proteins – Definition, classification, structure and properties of
- Amino acids, essential & non-essential amino acids
- Definition, classification, structure, properties and functions of proteins

Lipids – Definition, classification, types and properties of
- Fatty acids, Fats – composition, Acid Value, Iodine value and saponification value
- Classification and structure of phospholipids, Lipoproteins – types, composition, role and significance in disease

UNIT – II
Intermediary metabolism – General consideration.
- Carbohydrates – Glycolysis, gluconeogenesis, glycogenesis, glycogenolysis, blood sugar regulation
- Proteins – General reactions of amino acid metabolism, urea cycle
- Lipids – Oxidation and biosynthesis of fatty acids. Formation and utilisation of ketone bodies, ketosis, fatty livers
- Biological oxidation – Citric acid cycle, Electron transport chain
- Introduction to genetic control of metabolism – Nucleic acids, composition, structure, replication, transcription, genetic code, translation – elementary aspects
UNIT – III

Enzymes – Definition, types and classification of enzymes, Coenzymes, specificity of enzymes, Isoenzymes, factors affecting enzyme catalysis, enzyme inhibition
Fluid, electrolyte and acid-base balance
Molecular aspects of transport – Passive diffusion, active transport

UNIT – IV

Vitamins – Chemistry & biochemical role of fat soluble vitamins - A,D, K & E. Water soluble vitamins – B1, B2, B6, niacin and C.
Minerals – Macrominerals and microminerals – elementary aspects
Hormones – Biological role of – Pituitary, adrenal cortex and medulla, thyroid, parathyroid, pancreas

References

- West ES, Todd WR, Mason HS and Van Bruggen JT (1990): Text book of biochemistry
B.Sc. (Home Science) Part-III

NUTRITIONAL BIOCHEMISTRY (PRACTICAL)

Total Marks: 50
- Paper: 45
- Internal Assessment: 5

Teaching periods: 2 hrs/week

Instructions to the paper setter:
1. Practical exam paper should be of three hours duration.
2. The paper should be balanced covering entire syllabus.

Objectives
This course will enable the students to:-
1. be familiar with qualitative and quantitative determinations

Unit 1: Carbohydrates
- Reactions of mono, di and polysaccharides and their identification in mixtures
- Estimation of reducing and total sugars in foods
- Estimation of lactose in milk

Unit 2: Fats
- Reactions of fats and oils
- Determination of Acid value, Saponification and Iodine number of fats and oils

Unit 3: Proteins
- Reactions of amino acids and their identification in mixtures

Unit 4: Vitamins
- Estimation of ascorbic acid content of foods by titrimetric/colorimetric method.

Unit 5: Minerals
- Estimation of calcium in calcium carbonate by EDTA titrimetric method
- Estimation of phosphorus by Colorimetric method

Unit 6: Enzymes
- Effect of pH and temperature on enzyme activity – amylase on starch / pepsin on proteins / lipase on fats (Demonstration only)

References
- West ES, Todd WR, Mason HS and Van Bruggen JT (1990): Text book of biochemistry
Teaching periods: 3hrs/week

Instructions to the examiner-

1. Each theory paper will be of **three hours** duration.
2. Questions paper will have **four** sections.
3. A total of **Nine** questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry **equal marks** unless specified.
5. Students will be expected to attempt one question from each section and the compulsory question

**OBJECTIVES:**

This course should enable the students to –

1. Know the principles of diet therapy.
2. Understand the modifications of normal diet for therapeutic purposes.
3. Understand the role of the dietician.

**UNIT I**

1. **Team approach to health care:**

Role of doctor, dietitians and paramedical staff with regards to assessment of patients needs.

2. **Energy modifications and nutritional care for weight management:**

   - Overweight and obesity: Etiological factors, prevention and treatment, low energy diets and behavioral modification.
   - Underweight: Etiology and assessment, high-energy diets and weight gain.

**UNIT II**

3. **Etiological factors, symptoms and management of:** Upper GI tract diseases – Gastric and duodenal ulcers, flatulence, hyperacidity and reflux.
4. **Etiology, symptoms and management of:** Intestinal diseases – steatorrhoea, diverticular disease, ulcerative colitis, irritable bowel syndrome, hemorrhoids.

**UNIT III**

5. **Etiology, symptoms and management of:** Liver diseases – Infective hepatitis, Cirrhosis
6. **Etiology, symptoms and management of:** Diabetes mellitus – Classification and types. Glycemic index, glucose tolerance test.
UNIT IV

7. **Etiology, symptoms and management of:** Cardiovascular diseases – Atherosclerosis, Hypertension and coronary heart disease.

8. **Etiology, symptoms and management of:** Glomerulonephritis

REFERENCES:

B.Sc. (Home Science) Part-III
DIET THERAPY (PRACTICAL)

Teaching periods: 2/week

Instruction for the paper setter:

1. Each practical paper will be of three hours durations.
2. The paper should be balanced covering the entire syllabus.

OBJECTIVES:
To enable students to apply the principles of planning therapeutic diets for various disease conditions.

I. Planning and calculation of nutritive content and preparation of diets for the following conditions:
   1. Overweight and Obesity
   2. Ulcers
   3. Liver Diseases: Infective Hepatitis
   4. Diabetes Mellitus- type II
   5. Hypertension and Atherosclerosis
   6. Glomerulonephritis

II. Visit to a Dietetics Department in a local hospital for observing team approach to nutritional care of patients.

REFERENCES:
FOOD COST AND QUALITY CONTROL (THEORY)

Total Marks: 75
Paper: 65
Internal assessment: 10

Teaching periods: 3hrs/week

Instructions to the examiner-

1. Each theory paper will be of three hours duration.
2. Questions paper will have four sections.
3. A total of Nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each section and the compulsory question

OBJECTIVES:
This course should enable the students to –

1. Know the importance of cost control and quality control.
2. Be familiar with costing and pricing of recipes.
3. Be familiar with cost reporting system.
5. Be familiar with the testing of various quality parameters.

UNIT I

1. Financial management – Definition and scope

   Application of management accounting to catering operations. Investment decisions, operational decisions; disposition decisions.

2. Methods of costing in catering business and cost classification into materials, labor and overhead.

UNIT II

3. Material costing, use of standardized recipes, materials cost control: Through basic operating activities like purchasing, receiving, storage, issuing, production, sales and accounting; yield analysis from time to time by a suitable mark up policy.

4. Pricing: Method of pricing; factors affecting pricing; ascertaining a profitable price level; subsidy pricing; making pricing decisions.
UNIT III

5. **Budgeting:** Definition, kinds of budget, production, advantage of budget control, limitations of budgeting, selling and distribution cost budget, labor cost budget, overhead cost budget, budgeted profit and loss.

6. **Book keeping and accounting**

UNIT IV

7. **Basis of quality control, evaluation and assurance:** Food laws, food standards, HACCP and GRAS.

8. **Internal check and internal control:** Meaning and advantages – Factors to be borne in mind while developing internal check/control procedure. Samples, inspection sampling and interpretation of data.

9. **Food adulteration:** Common adulterants in food.

REFERENCES:

B.Sc. (Home Science) Part-III
FOOD COST AND QUALITY CONTROL (PRACTICAL)

Total Marks: 50
Paper: 45
Internal assessment: 5

Teaching periods: 2/week

Instructions to the paper setter:

1. Practical exam paper should be of three hours duration.
2. The paper should be balanced covering entire syllabus.

OBJECTIVES:
To enable students to understand the importance of budgeting and food costs and also to make them aware of the common adulterants found in food.

I Record keeping of purchasing, receiving, storing and issuing
II Household methods of detection of adulterants and quality of foods:
   1. Chemical examination – butter and ghee, oils and fats, milk and milk products, eggs.
   2. Physical examination – cereals and cereal products, confectionary, eggs, spices, pulses and pulse products.

REFERENCES:
B.Sc. (Home Science) Part-III

TRENDS IN NUTRITION (THEORY)

Total Marks: 75
Paper: 65
Internal Assessment: 10

Teaching periods: 3hrs/week

Instructions to the examiner-

1. Each theory paper will be of three hours duration.
2. Questions paper will have four sections.
3. A total of Nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each section and the compulsory question

OBJECTIVES:

This course should enable the students to:

1. Understand the latest trends in the field of nutrition.
2. Apply this knowledge to improve nutritional sciences.

UNIT I

2. Herbs as useful adjuncts to manage chronic diseases: Introduction, unique herbal flavors and uses.

Herbs for Improved cardiovascular function.
Herbs for Blood Sugar modification.
Herbal Supplements for weight reduction.

UNIT II


Functional foods - Raw, Processed, Supplemented.
Benefits and problems associated with functional food health claims.


Dietary Supplements for heart and bone health.

UNIT III

5. Health Benefits of Phytochemicals and Antioxidants.
UNIT IV

7. **Genetically modified foods:** Definition, scope and safety regulation.
8. **Computers in management of nutrition practice:** (Clinical care, Community nutrition and Nutrition research).

REFERENCES:
3. Edelstein, Sharlin (2009); Life cycle nutrition, an evidence based approach.
4. Zempleni, Daniël (2003); Molecular Nutrition

TRENDS IN NUTRITION (PRACTICAL)

Total Marks: 50
Paper: 45
Internal Assessment: 5

Teaching periods: 2/week

1. Planning and preparation of recipes using herbs for the following:

   a. Improving cardiovascular function.
   b. Blood Sugar modifications.
   c. Weight reduction.
   d. Post Pregnancy and Lactation.

2. Computer Software-hands on experience on Nutrition/Nutrition related Software.

REFERENCES:
3. Edelstein, Sharlin (2009); Life cycle nutrition, an evidence based approach.
4. Zempleni, Daniël (2003); Molecular Nutrition
B.Sc. (Home Science) Part-III

PUBLIC HEALTH AND EPIDEMIOLOGY (THEORY)

Total Marks: 75
Paper: 65
Internal Assessment: 10

Teaching Periods: 3hrs /week

Instructions to the examiner-

1. Each theory paper will be of three hours duration.
2. Questions paper will have four sections.
3. A total of Nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each section and the compulsory question

OBJECTIVES:
This course should enable the students to:-
1. Understand the concept of health from the individual and community perspective.
2. Define various basic concepts, methods and tools used by epidemiologists and public health specialists to study the health and dynamics of populations.

UNIT I


UNIT II

3. Indicators of health. Functions and tools used in public health care and practice.

UNIT III

5. Epidemiology: Basic concepts, definition and aims. The epidemiology triad.

UNIT IV

REFERENCES:


15. International Public Health: Diseases, Programs, System and Policies, Jones and Bartlett Publishers.


1. Calculation of Basic Epidemiological measures: Risk, Rates, Prevalence, Percentage, Incidence and Ratios

2. Role of fieldwork in Public Health and Epidemiology.

3. Health Care Surveillance, Registration of vital events and Demographic Factors.


5. Use of Abbreviations in Scientific Writing.


B.Sc. (Home Science) Part-III

NUTRITIONAL ASSESSMENT AND SURVEILLANCE (THEORY)

Total Marks: 75
Paper: 65
Internal Assessment: 10

Teaching periods: 3 hrs/week

Instructions to the examiner-

1. Each theory paper will be of three hours duration.
2. Questions paper will have four sections.
3. A total of Nine questions comprising of two questions from each section and one compulsory question of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each section and the compulsory question

OBJECTIVES:
1. To orient the students with all the important methodologies applied in nutritional assessment and surveillance of human groups.
2. To develop specific skills to apply the most widely used methods.

UNIT I
1. Nutritional status assessment and surveillance:

Meaning, need, objective and importance

2. Direct nutritional assessment of human groups:

Clinical signs, nutritional anthropometry, biochemical tests (biophysical methods)

UNIT II
3. Diet survey:

Need and importance, methods of dietary survey. Interpretation-concept of consumption unit, Adequacy of diet with respect to RDA.

4. Clinical Signs:

Need and importance. Interpretation of description list of clinical signs, identifying signs of PEM, Vitamin A deficiency, iodine deficiency, anemia.

UNIT III
5. Nutritional anthropometry:

Need and importance, standards for reference, techniques of measuring height, weight, head, chest and arm circumference, interpretation of these measurements and use of growth charts.

6. Monitoring growth of children-weighing and charting growth
UNIT IV

7. Secondary sources of community health data:

Sources of relevant vital statistics. Importance of infant, child and maternal mortality rates. Epidemiology of nutritionally related diseases.

8. Sociological factors in the etiology and prevention of malnutrition:

Food production and availability, cultural influences, socio-economic factors, food consumption, conditioning infections, medical and educational services, psychosocial, emergency/disaster conditions example: Famine, floods, war.

REFERENCES:

NUTRITIONAL ASSESSMENT AND SURVEILLANCE (PRACTICAL)

Teaching Periods: 2 hrs/week

Instructions to the paper setter:

1. Practical exam paper should be of three hours duration.
2. The paper should be balanced covering entire syllabus.

1. Anthropometry:
   Measurement of infants/ Preschoolers/ Adolescence/ Adult length, height, weight, circumference measurements, head, chest, mid-upper arm, waist, hip, precautions to be taken. Accuracy, precision and reliability of measurements. Intra and inter observer variability and errors. Tools used and sensitivity.

2. Comparison of norms and interpretation to assess nutritional status:
   Weight for age, height for age, weight for height, MUAC, Standard deviation, BMI, waist to hip ratio and significance.


4. Clinical assessment and signs of nutrient deficiency for the following:
   PEM (kwashiorkor and Marasmus), Vitamin A deficiency, Anemia

5. Biochemical parameters commonly used for the assessing nutritional status:
   Norms and cut off points for desirable, at risk/ deficiency for PEM (kwashiorkor and Marasmus), Vitamin A deficiency, Anemia

6. Estimating food and nutrient intake:
   Household food consumption data, per consumption unit, 24 hrs dietary recall, 24 hrs record, weightment method, food diaries, food frequency data

7. Field visit for the surveillance system used in nutrition and health programmes.
B.Sc. Home Science Part-III
(Common to all Six streams)
Personal Empowerment and Entrepreneurship Management

Theory

Total Marks: 75
Paper: 65
Internal Assessment: 10

Teaching Periods – 3 hrs/ week

Instructions for Paper Setter:

1. Each theory paper will be of three hours duration.
2. Question paper will have four sections.
3. A total of Nine questions comprising of two questions from each Section and one compulsory questions of short answer type covering the whole syllabus will be set.
4. All questions may carry equal marks unless specified.
5. Students will be expected to attempt one question from each Section and the compulsory question.

OBJECTIVES:

1. To orient the students to the concept, need and process of entrepreneurship.
2. To understand the market, types of business, the parameters for selecting and running an enterprise successfully.
3. To make students aware of the different opportunities for employment and business in Human Development and Family Relations.
4. To orient the students to the significance of programme design with focus on planning, implementation and evaluation.

CONTENTS

Section-A

PERSONAL EMPOWERMENT

a) The challenge – understanding and managing oneself.

b) Factors affecting Personality Development, Peer Pressure – Issues and management

c) Conflicts and stresses – Simple coping strategies

Section-B

PERSONAL GROWTH AND PERSONALITY DEVELOPMENT

a) Women and Development, Women’s organization and collective strength.

b) Capacity building for women – Education, Decision making abilities and opportunities, awareness and information on legal and political issues.
c) Gender Issues: Inequities and discriminations, biases and stereotypes: myths and facts, Aids – Awareness and Education.

Section-C

ENTREPRENEURSHIP MANAGEMENT

a) Entrepreneurship: Concept and Theories, Need and Importance of entrepreneurship development in India.

b) Entrepreneurial Traits and Types.

c) Women Entrepreneur: Characteristics, Role, Demand and Challenges.

Section–D

ENTERPRISE PLANNING AND EXECUTION


b) Four P’s of marketing, A brief introduction to Quality control and Quality assurance.

c) Feedback, monitoring and evaluation, SWOT analysis.

RECOMMENDED READINGS


11. The CII Entrepreneur’s Hand Book.


**Personal Empowerment and Entrepreneurship Management**

**Practical**

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**Teaching Period – 3 hrs/ week**

**Internal Assessment: 05**

**Instructions for Paper Setter:**

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and viva voice will be of 5 marks each (Total = 10 marks)

**Objectives:**

1. To develop human competencies for Entrepreneurship.
2. To develop skills in Program management.
3. To analyze the issue and problems of a specific community for need assessment.
4. To develop skills in the use of participatory approaches in program planning and evaluation.

**Contents**

1. Case study and analysis of one women headed micro enterprise/ small scale enterprise.
3. Portfolio on legislation, governing small scale enterprise, NGO.
4. Steps to organize and manage any one of the following:
   - B. Window and interior store display. (B.Sc. Apparel and Textiles)
   - C. Catering management (B.Sc. Hospitality)
   - D. Interior design (B.Sc. Interior Design).
   - E. Establishing Cafeteria/ Diet clinic (B.Sc. Dietetics)

**Note--- B.Sc. (Composite) students can opt for any one of the above.**

5. Planning, Organization, implementation and evaluation of a need base extension program for the selected community in relation to anyone.
   - Literacy
   - Income Generation
   - Social Evils.
   - Health
   - Maternal and Child care

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