

B.Sc. HOME SCIENCE - III

Semester – VI

FOOD SCIENCE & NUTRITION

NUTRITION & DIETETICS

Paper-I

Total Marks 75

Theory - 50

Practical -15

Internal Assessment-10

OBJECTIVES:

- 1) To provide knowledge about the causes and symptoms of various diseases.
- 2) To understand the role of diet in the management of these conditions.
- 3) To plan, calculate and prepare diets for various diseases.

Theory

Unit – I

Hypertension, Coronary and Renal Disorders:
Causes, Symptoms and Principles of Dietary Management of
Hypertension, Coronary Heart diseases and Renal Disorders

- 1) Hypertension : a) Normal Blood pressure and types of Hypertension
a) Role of Sodium / Salt in hypertension
b) Role of diet in management of various types of
hypertension.
- 2) Coronary Heart diseases : A) Hyperlipidemias : a) Types /Classification
B) Atherosclerotic Heart disease: a) Types
b) role of diet
C) Prevention: control of risk factors and life
style changes.

Unit – II

Renal disorders: a) Glomerulonephritis
b) Nephrotic syndrome
c) Acute and chronic renal failure
d) Importance of dialysis
e) Renal Calculi

Unit –III

Conditions Requiring Nutrition Support:
Causes, Symptoms and Principles of Dietary Management of some of
the special conditions requiring Nutritional Support:

- 1) Fevers : Short and long
- 2) Surgery : Pre and postoperative care
- 3) Burns: Types, degree

Unit –IV

Conditions Requiring Nutrition Support:

Causes, Symptoms and Principles of Dietary Management of some of the Special conditions requiring Nutritional Support

- 1) Anemia: Types
- 2) Cancer: Types of Cancer, carcinogens
- 3) AIDS

Practicals

Planning, Calculation and Preparation for the following disorders:

- 1) Hypertension and CHD
- 2) Renal disorders : Nephritis, and Nephrotic Syndrome
- 3) Fever : Short and long
- 4) Anemia : Iron Deficiency

Internal Assessment

Any one of the following

- 1) Field work
- 2) Canteen

Books Recommended:

1. Nutritive value of Indian foods: Gopalan C, Rama Sastri & Balasubramainiam, S.C.National Institute of Nutrition, 2007.
2. Krause's Food Nutrition and Diet therapy: L Kathleen Mahan, Sylvia Escatistump 19th edition, W.B.Saunders Co. 1996.
3. Normal & Therapeutic Nutrition: Corinne H Robinson & M.R. Lawer 15th Edition 1997.
4. Clinical Dietetics : F.P.Antia, 2nd Edition Oxford University Press 197.3
5. Text book of Human Nutrition: Editors: Bamji M.S.Rao N.P.Reddy V.Oxford & IBH Pub co. Pvt Ltd.2009.
6. Dietetics: Srilaxmi B 3rd Edition, New Age International (p) Ltd. 2008.
7. Manual of Nutrition and Diet Therapy : Grills & Bosscher, Macmillan Public co inc. 1981
8. Essentials of Nutrition and Diet Therapy: Willams S.R. Times Mirror I Mosby college Pub. 1990
9. Nutrition and Dietetics : Shubhangi A Joshi, Tata Mcgraw- Hill Education Pvt Ltd,New Dehli 2010.

Home Science Syllabus

B.Sc.

Semester-VI

HUMAN DEVELOPMENT

[Developmental Assessment & Children with Special Needs]

Paper-II

Total Marks - 75

Theory - 50

Practical - 15

Sessional - 10

Objectives:

1. To make students aware of developmental assessment.
2. To introduce to the students concept of psychological testing.
3. To sensitize students towards children with special needs.

Unit-I: Developmental Assessment

- Meaning, importance & need & function
- Sources of information – interview, case study, checklist & rating scales, observation
- Identifying the developmental milestones as on important aspect of assessment.
- Psychological Testing – origin, uses & functions, standardization (reliability & validity).
- Ethical considerations in testing – confidentiality, privacy, communication of test result.

Unit-II: Testing

- Test for infants (Bayleys, Brazelton, Denver).
- Test for children (CPM)
- Test for children “at risk” (VSMS, Bender Gestalt)

- Test for family school relation (Bells adjustment inventory, PCR)
- Assessment of personality (TAT, SCQ, CPQ, General Anxiety Scale)
- Intelligence Test (WISC, SFBT)

Unit-III: Children with Special Needs - I

- Meaning and definition of children with special needs
- Importance and methods of studying children with special needs
- Etiology and characteristics of children with special needs – sensory, visual, auditory, orthopedic, mental and linguistic.
- Multiple disabilities – definition, characteristics & problems.

Unit-IV: Children with Special Needs - II

- Children with behavioural deviation
- Children with emotional disturbances
- Social maladjustments and delinquents.
- Role of family members and welfare programmes for meeting the needs of exceptional children.

Practicals: Conducting various psychological tests.

1. Parent child relationship
2. Academic anxiety scale
3. Adjustment inventory
4. Intelligence Test – SFBT, CPM
5. CPQ

Visit to the local institute for handicapped.

Sessional:

i) Project Work

Case study of special children

Books Recommended

- 1) Human Development: Diane, E. Papalia & Sally Wendkos Olds,
5th Edition 1981, Tata McGraw Hill Publishing
Company, New Delhi.

- 2) Abnormal Psychology and Modern Life: Coleman, 1988, 5th Ediction, D. B. Taraporevala Sons and Co. Pvt. Ltd.
- 3) Psychological Testing Anna Anastasi
- 4) Psychological Testing Freeman
- 5) Disabled Village Children David Wener
Voluntery Health Association of India
- 6) Exceptional Children William L. Heward & Michael D. Orlansky,
4th edition
An Introductory Survey of Special Education.
- 7) Exceptional Children Mahesh Bhargava

B.SC. (HOME SCIENCE)

SEMESTER – VI

TEXTILES

(FASHION DESIGN)

Paper-III

Total Marks – 75
Theory- 50
Pract- 15
IA- 10

THEORY

OBJECTIVES:

- To create awareness about fashion culture.
- To impart knowledge of clothing communication and fashion expression.
- To acquaint students with knowledge of marketing & its environment.
- To make them understand the importance of fashion forecasting

UNIT-I

- Fashion terminology fashion, style, fad, classic, stereotype, boutique, croquis, fashion trends, haute couture, designer, prêt-a-porter, silhouette, Hi- fashion, mass fashion and knock-offs.
- Fashion definition, principles, components (silhouette, details, texture and colour).
- Factors affecting fashion (social, economic, psychological)

UNIT-II

- Fashion cycle stages, broken fashion cycle and length of fashion cycles.
- Fashion theories- trickle down, trickle across and bottom up theory.
- National and International designers of 20th and 21st century- their profile, collection and contribution to fashion world.

UNIT-III

- Introduction to entrepreneurship development-steps in setting up an enterprise.
- Work flow and brief study of various department of apparel manufacturing unit.
- Different types of Industrial sewing machines, and their uses
- Special purpose machines

UNIT-IV

- Fashion market, introduction to marketing environment(macro & micro).
- Sales promotion techniques.
- Retailing- introduction, different retail operations, factors affecting retailing.
- Fashion forecasting – Process, sources of fashion forecasting information.
- Merchandising – introduction, role of merchandiser, types of merchandising.

Sessional work- Sessional work will be based on below mentioned topics

- Figure Stylization – Illustrations – Basic croquis, division of the body to make the 8, 10 and 12 head figure.
- Figure in motion-normal standing, walking, running and sitting.
- Rendering of different fabric appearances using wet mediums like poster or acrylic.
- Sketching of different views of face, eye, nose, hands, legs and hairstyles.
Figure drawing in S,X,T,Y poses.

Practical

Drafting and construction of :

- Night Suit, Nighty & Gown
- Churidaar/salwar Kurta
- Circular Skirt
- Top with dart manipulation
- Cholicut Blouse

References:

- Bride M Whelan, "Color Harmony", Rockford Publishier, 1992.
- Gold Stein, "Art in Every day life." IBH Publishing Co., Calcutta, 1992.
- Ireland, Patrick John, "Fashion Design Drawing and Presentation", B.T. Batsford, 1996.
- Allen and seaman, "Fashion Drawing – The Basic Principles", B.T. Batsford, London, 1994.
- Drake and Nicholas, "Fashion Illustration", Thames & Hudson.
- Alling Bina, " Fashion Sketch Book".**References:**
- Kathryn Mekelvey, "Fashion source book", Blackwell science, UK
- Sharon Le Tate, "Inside Fashion Design", Harper and Row Pub. NY.
- Carter L, "The changing World of Fashion," G.P. Panama's Sons, NY
- Horn MJ, " Second Skin"
- Bosien, "Study of clothing", Houghm Mifflin Company.
- Kafgen Mary, Individuality in clothing, Houghton Mifflin Company
Elaine stone, " Dynamics of Fashion".

B.Sc. (Home Science)

Semester VI

Resource Management

(Advanced Resource Management)

Paper – IV

Theory – Periods / Week (Credit -2)	Total Marks - 75
Practical – Periods / Week (Credit -1)	Theory - 50
	Practical - 15
	Internal Assessment - 10

Objectives:-

- 1) To give opportunity to develop ability to manage time, energy and money.
- 2) To develop ability to apply management principles in experimental house and in day to day life experience and various small events.
- 3) To develop ability to apply work simplification techniques.
- 4) To make them aware of intelligent choice of consumer goods.

COURSE CONTENT: Theory

UNIT – I

- 1) Time Management
 - a) Definition
 - b) Nature/Importance of time
 - c) Specific aids or tools of time management -
 - i. Work Production Curves
 - ii. Rest and sleep periods
 - d) Process of managing time
 - i. Planning
 - ii. Implementation
 - iii. Evaluative feedback

2) Experimental House

Meaning – Importance – Objectives

Organization – duration – Duties - Rotation of duties - Group finance – Menu Planning –
Work simplification through menu planning – Work plans – Evaluation in residence course

UNIT – II

- 1) Energy Management
 - a) Meaning, Importance
 - b) The efforts used in Home making activities
 - c) Energy requirements for household tasks
 - d) Forms and effects of fatigue
 - e) Process of managing energy
 - i. Planning
 - ii. Implementing
 - iii. Evaluating feedback
 - f) Definition of consumer
 - g) Intelligent choice of consumer goods

UNIT – III

- 1) Work Simplification
 - a) Definition
 - b) Importance
 - c) Techniques
 - i. Process chart
 - ii. Operation chart
 - iii. Pathway chart
 - d) Mundel's classes of change
 - e) Consumer credit – credit purchase
 - f) Consumer protection

UNIT – IV

- 1) Finance / Money Management

- a) Income concept
 - b) Planning – definition, Importance of family finance plan/Budget – steps in making budget
 - c) Implementing
 - d) Evaluative feedback
-
- 2) Account keeping
 - a) Definition & Importance
 - b) Types of account keeping

COURSE CONTENT: Practical

Total Marks – 15

Experimental House

Home Science Colleges have a practice House in which student stay for a week or two. Each student group sets up its own goal – its organization of work, its calendar, budget and outline of project. Experimental house furnished with up-to-date equipments and furnishing with up-to-date equipments and furnishing illustrating family living at a relatively Middle income level; is made available. Colleges can experiment with shorter period and day time residence (particularly for married students).

The students are required to perform the following duties & evaluated on their performance of each day.

Distribution of marks

- a) Duties

1) Hostess	2
2) Cashier-cum-Accountant	2
3) Cook	2
4) Asst. cook	2
5) House keeper	2
6) Asst. House keeper	2

- b) Report of cottage stay 3 marks

OR

Practical: 15

- 1) Time plan for college going students, working and non-working women.
- 2) Work simplification techniques applied to any activity – Pathway – process – Operation chart.

- 3) Establishing Budget making & actual spending (for any event)
- 4) Account keeping – (of any event)

Internal Assessment
(Any two from the following)

10 Marks

- a) Attending seminar & conference – Report and review
- b) Giving seminar on related topics
- c) Assignment on related topics

Books Recommended:

1. Good year & Klohar 'Managing for effective living' John Wiley and Sons.
2. Gross-crandall-knoll 'Management for Modern families' Prentice Hall, Inc. New Jersey.
3. Nickell- Rice- Tucker, 'Management in family living' John Wiley & Sons.
4. Swanson Bettye 'Introduction to Home Management McMillan Pub. House. Inc. New York.
5. Borkar Sunita ' Introduction to Resource Management', Himalaya Publishing House.
6. Sounderaraj Stella 'A textbook of Household Arts' Orient longman.

SEMESTER VI

EXTENSION EDUCATION

EXTENSION TRAINING MANAGEMENT

Paper -V

THEORY:50

PRACTICALS:15

INTERNAL ASSESSMENT:10

OBJECTIVES:

- 1.To understand the importance of the knowledge of adoption of innovation.
2. To understand the techniques of advertisement in mass communication.
- 3.To develop an understanding of co-ordination in extension work.
- 4.To develop awareness regarding importance of training in extension.

UNIT I

Adoption of Innovations: Meaning and definition of adoption, steps involved in adoption process, rate of adoption, innovativeness, diffusion, characteristics
Of innovations, classification of adopters and characteristics of innovators.

UNIT II

Advertisement in Mass communication: Meaning and scope of Advertisement
Planning of advertisement layout, Format of advertisement, Role of advertisement and its effects on consumers.

UNIT III

Co-ordination in Extension: Definition, importance, aspects, necessity of team work for effective coordination in extension, practical difficulties of team work and its solution.

UNIT IV

Extension Training: Meaning and definition of extension training, importance of extension training, types of training in extension work, problems in training.

Practicals:

- 1.Framing of a questionnaire to conduct survey on any home science aspect.
2. Handling and operation of opaque projector for display of non transparent materials.
- 3.Preparation of a folder on home science extension aspect.

Internal Assessment:

Preparation of any one type of puppet for extension work.

References:

1.Dahama.O.P. & Bhatnagar,O.P. Education and communication for development,Oxford and IBH publishing Co.New Delhi.

2.Supe S.V. An introduction to Extension Education'Oxford & IBH publishing Co., New Delhi.

3.Reddy,A. Extension Education,Shree Laxmi Press, Bapatla, Guntur,A.P.

Semester VI

Health Science

Paper-VI

Unit :-1

Parasitology -

1. Life cycles of Malarial and Filarial Parasite .
2. Life cycles of Round Worm and /Tape Worm./ **Ring worm**

Unit :- 2

1. Disposal of waste and General Sanitation.
2. School Health hygiene and Personal Hygiene .

Unit :-3

1. **Pregnancy - Antenatal care regarding regular health check up, dress, medication, diet and personal hygiene.**
2. **Parturition - Post natal care and child care with some common ailments .**

Unit :-4

1. Lactation .
2. Family Planning.

Practicals

Max. marks : - 15

IA- 10

1. Preparation of Blood Smear and Identification of Blood Cells.
2. Determination of Haemoglobin Percentage.
3. Urine Examination - Physical and Chemical (Albumin , Sugar , Acetone)
4. Examination of Permanent Slides of Micro organisms.
5. Study and Use of Common Insecticides , Disinfectants .
6. Visits :-
 - a) Public Health Centre.
 - b) Hospitals.
 - c) Disposal Plants.

B.Sc. Home Science Semester VI

NUTRITIONAL BIOCHEMISTRY

Paper-VI

Total Marks-75

Theory-50

Pract+IA-15+10

UNIT-I

- 1) Definition and general classification of carbohydrates. Classification of Monosaccharide based on number of carbon atoms and functional groups.
- 2) Hemiacetal, pyranose and furanose structure of glucose and fructose. D-L configuration based on glyceraldehydes.
- 3) Chemical reactions of glucose and fructose-i) formation of glycosides ii) Oxidation iii) reduction, iv) Osazone formation
- 4) Disaccharides- Structure and general properties of Lactose, Maltose, Sucrose.
- 5) Polysaccharides- Structure and general idea of starch, cellulose, glycogen.
- 6) Hypoglycemia, Hyperglycemia, Renal Threshold.

UNIT –II

Metabolism of Carbohydrates

Glycolysis

Glycogenesis

Gluconeogenesis

Krebs cycle, HMP Shunt

UNIT –III

1. Amino acids-

a) Definition and structure

b) Classification-i) Essential and Nonessential

ii) Glucogenic and ketogenic

- c) Properties- Formation of peptide bond
- d) Metabolism- Transamination, Oxidative deamination and urea synthesis

2) Proteins-

- a) Definition, classification (based on structure and function)
- b) Structure-primary, secondary and tertiary
- c) Colour reactions- Ninhydrin, Biurate, Million's Xanthoproteic

Unit IV Enzymes-

- a) Nomenclature and classification according to IUB system.
- b) Terms used in enzymology- Enzymes, apoenzyme, prosthetic group, holoenzyme and coenzyme.
- c) Effect on enzyme activity-i) pH ii) temperature

PRACTICALS:-

1) Qualitative Analysis

- a) Colour reactions of carbohydrates
- b) Colour reactions of proteins

2) Quantitative Analysis-

- i) Estimation of glucose by Benedict method
- ii) Sorenson's Amino acids titration (formal titration)

3) Preparations- a) potato starch

- i) Solubility test
- ii) colour reaction

c) Isolation of Casein from milk

i) Solubility test

ii) Colour Reactions

4) Experiments with Enzymes

i) Action of Ptyalin (Salivary Amylase) on starch

ii) Inversion (hydrolysis) of sucrose by yeast Invertase

iii) Schardinger Enzyme (Xanthine oxidase) from milk.

Reference Books:

1) Handbook of Bio Chemistry: M. Siddiqui

2) Biochemistry: U Satyanarayan

3) Principle of Biochemistry: Lehinger, Nelson and Cox

4) Medical biochemistry- Harper

5) Medical Biochemistry-Shinde and Chatterjee

B.Sc.(Home-Science) Semester-VI

Applied Chemistry

Paper VII

Theory : 1 Period/Wk/(Credits) Practical : 2 Periods/Wk/(Credits)

Theory Marks 50

Practical Mks.25 :

Unit-I

Cosmetics : Definition, ingredients, preparation, properties and uses of shampoo, face powder, lipstick, cold cream, sunscreen lotion. Hazards of cosmetics.

Unit-II

Dyes : Definition of dyes, Witts theory of Colour and constitution, chemical classification of dyes based on their functional groups.

Different types of dyes : (Acid dyes, Basic dyes, Direct dyes, Vat dyes, Mordant dyes)

Unit – III

Essential oils – definition, occurrence and different methods of extraction of essential oils

Perfumes - Definition, components present and general method of preparation of perfumes, characteristics of good perfume, formulation of any two perfumes.

Unit – IV

Drugs - Definition, preparation and uses of paracetamol, oil of winter green and aspirin.

Amino acids – definition, general structure of amino acids, chemical structure of some simple naturally occurring amino acids, essential and non-essential amino acids, formation of peptide bond and Zwitterion.

Practicals;

1. Preparation of basic shampoo.
2. Preparation of herbal shampoo.
3. Preparation of face cream.
4. Preparation of perfumes.
5. Preparation of dyes.
6. Preparation of oil of winter green.

Books Recommended

1. Text book of organic chemistry - Bahl and Tuli
 2. Text book of organic chemistry - Finar
 3. Text Book of Engineering Chemistry, S.Chand Co. Dara,
 4. Text book of Basic Applied chemistry P.C.Jain and Monica Jain
 5. Text Book of Applied Chemistry T. Jacob
 6. New Cosmetic Science Mitsul
 7. Perfumes, Cosmetics, Soap, Vol. I, II, III Poucher
- Chemistry and manufacturing of Cosmetic Vol. I,

B. Sc. HOME SCIENCE**Semester III**

Sr. No.	Subject	Theory	IA (Pra)	Total Marks	C R E D	I T S
1	Meal Management (PaperI)	50	25	75	Th 2	Pra 1
2	Early Childhood Development & Education (PaperII)	50	25	75	2	1
3	Textile Design (PaperIII)	50	25	75	2	1
4	Housing & Home Furnishing (PaperIV)	50	25	75	2	1
5	Extension Learning (PaperV)	50	25	75	2	1
6	Applied Physiology(PaperVI)	50	25	75	2	1
7	Basic Chemistry. (PaperVII)	50	25	75	2	1
Total		350	175	525	14	7

f) **Pract=Practical, IA= Internal Assessment. Th=Theory**

Minimum marks for passing will be 35% of the total marks allotted to theory/ internal assessment/ practical. A candidate has to pass individually in theory / internal assessment / practical separately.

g) Note: 1) The strength of a batch of practical for Under-Graduate classes shall be 16 with an addition of 10% with the permission of Vice-Chancellor.

h) B. Sc. HOME SCIENCE**Semester IV**

Sr. No.	Subject	Theory	Pract+IA	Total Marks	C R E D	I T S
1	Community Nutrition (Paper I)	50	15+10	75	Th 2	Pra 1
2	Late Childhood & Adolescence (PaperII)	50	15+10	75	2	1
3	Dyeing & Printing (PaperIII)	50	15+10	75	2	1
4	Housing & Home Furnishing(PaperIV)	50	15+10	75	2	1
5	Rural Sociology(PaperV)	50	15+10	75	2	1
6	Applied Physiology(PaperVI)	50	15+10	75	2	1
7	Basic Chemistry (PaperVII)	50	15+10	75	2	1
Total		350	175	525	14	7

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- k)
- l)
- m)

B. Sc. HOME SCIENCE

Semester V

Sr. No.	Subject	Theory	IA	Total Marks	C R E D	I T S
1	Diet Therapy (PaperI)	50	25	75	Th 2	Pra 1
2	Dynamics of Marriage & Family (PaperII)	50	25	75	2	1
3	Apparel Pattern Design (PaperIII)	50	25	75	2	1
4	Advanced Resource Management PaperIV)	50	25	75	2	1
5	Extension Programme Planning (PaperV)	50	25	75	2	1
6	Household Biology (PaperVI)	50	25	75	2	1
7	Applied Chemistry (Paper-VII)	50	25	75	2	1
	Total	350	175	525	14	7

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B.Sc.HOME-SCIENCE**Semester VI**

Sr. No.	Subject	Theory	Pract+IA	Total Marks	C R E D	I T S
1	Nutrition & Dietetics (PaperI)	50	15+10	75	Th 2	Pra 1
2	Developmental Assessment(PaperII)	50	15+10	75	2	1
3	Fashion Design(PaperIII)	50	15+10	75	2	1
4	Advanced Resource (Management(PapaerIV)	50	15+10	75	2	1
5	Extension Training Management (PaperV)	50	15+10	75	2	1
6	Health Sciences/ Nutritional Biochemistry (Paper-VI)	50	15+10	75	2	1
7	Applied Chemistry (PaperVII)	50	15+10	75	2	1
	Total	350	175	525	14	7

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Minimum marks for passing will be 35% of the total marks allotted to theory/ internal assessment/ practical. A candidate has to pass individually in theory / internal assessment / practical separately.

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