B.S.c. Home Science

1ST SEMESTER

S.No	NAME OF THE PAPER	MARKS	INTERNAL ASSESSMENT	PERIODS/WEEK
101	ENGLISH LANGUAGE AND COMMUNICATION SKILLS	45	5	3
102	Applied Chemistry	45	5	3
	Practical	25		3
103	Human Physiology	45	5	3
	Practical	25		2
104	Introductory Clothing	45	5	4
	Practical	25		3
105	Hygiene and Public Health	45	5	3
106	Basic Foods	45	5	4
	Practical	25		3

	IIND SEMESTER			
201	English -II	45	5	3
202	Applied Physics	45	5	3
	Practical	25		3
203	Human Development - I	45	5	3
	Practical	25		2
204	Introduction to Textiles	45	5	4
	Practical	25		3
205	Applied Botany	45	5	3
206	Fundamentals of Nutrition	45	5	4
	Practical	25		3

	IIIRD SEMESTER			
301	Extension Education	45	5	3
	Practical	25		2
302	Human Development -II	45	5	3
	Practical	25		2
303	Psychology I	45	5	3
304	Introduction to Home Management - I	45	5	4
305	Laundry Science and Finishing Fabrics	45	5	4
	Practical	25		3
306	Consumer Economics	45	5	3
307	Food Science-I	45	5	4
	Practical	25		3

IVTH SEMESTER				
401	Community Development	45	5	3
	Practical	25		2
402	Human Developmet - III	45	5	3
403	Psychology - II	45	5	3
404	Institutional Food Management	45	5	3
405	Garment Construction and Apparel Science	45	5	4
	Practical	25		3
406	Introduction to Home Management - II	45	5	4
	Practical	25		3
407	Food Science - II	45	5	4
	Practical	25		3
VTH SEMESTER				
501	Family Dynamics	45	5	3
502	Child Care & Rearing Practices	45	5	3
	Practical	25		2
503	Nutritional Biochemistry-I	45	5	4
	Practical	25		3
504	Community Nutrition	45	5	3
	Practical	25		2
505	Indian Textiles	45	5	4
	Practical	25		3
506	Interior Space Designing	45	5	4
	Practical	25		3
507	Normal Nutrition	45	5	4
	Practical	25		3
VITH SEMESTER				
601	Women Empowerment	45	5	3
602	Child Welfare	45	5	3
	Practical	25		2
603	Nutritional Biochemstry - II	45	5	4
	Practical	25		3
604	Food Microbiology	45	5	4
605	Apparel Designing	45	5	4
	Practical	25		3
606	Interior Designing	45	5	4
	Practical	25		3
607	Therapeutic Nutrition	45	5	4
	Practical	25		3

B.Sc. HOME SCIENCE
Semester I
English Language and Communication Skills I

Course No. 101 M.M : 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I Collective Information

a. Questionaire, bibliography
b. Identifying sources
c. Classifying information under fact / opinion
d. Eliciting information
e. Identifying sexism and gender bias in language

Unit - II Editing / Evaluating Information

a. Tabulating information
b. Identifying topic sentences and summarizing a text
c. Presenting sequence of topics in a diagrammatic form

Unit - III

a. Analyzing relationships between sentences and paragraphs
b. Identifying strategies for highlighting components
c. Tracing development of text
d. Transferring visual to verbal

References

1. Sarah Freeman : Written Communication, Orient Longman 1978.
2. Ranu Vanikar : Corridors to Communication, Orient Longman , 1984.
3. Tickoo, M.L. : Writing with a purpose, Oxford University Press, 1980.
4. Ranu Vanikar and Katayan Palia : Networking – Strategies for Communication in English Oxford University Prss, 1995.

B.Sc. HOME SCIENCE
Semester – I
Applied Chemistry

Course No. 102 M.M : 45
Periods/wk.: 3
Time: 3 Hrs.

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. Concept of element, mixture and compound, atomic and molecular masses, mole concept and molar masses, Normality, molarity and mass percentage. Simple numerical problems based on them.

   Subatomic particles : Electrons, Protons and Neutrons, Atomic No., Atomic weight, Bohr's model of an atom.

2. Modern periodic law and periodic sable, Electronic configuration of elements (Na, Mg, C, N, O, F, Cl, H). Periodic properties : Atomic size lonisation energy, electron affinity and electro negativity.Chemical Bonding : Ionic, Covalent , coordinate, H bonding.
   Concept of Acids, Bases and salts, pH and pH scale. Numericals based on pH . Buffer solutions.

Unit-II

3. Carbon and its characteristics – Tetravalency catenation, isomerism, electronagativity, Tendency to form multiple bonds, organic compounds, classification of organic compounds, functional groups, IUPAC nomenclature of Aliphatic compounds (alkanes, alkenes, alkynes, alcohols, carboxylic acids, alkehydes and hetones). Classification of Carbon atoms in alkanes.

Unit – III

4. Soaps and synthetic detergents, advantages and disadvantages.
5. Synthetic polymer : Structure and uses of the following polymers (PVC ,Teflon, PAN, Nylon-6, 6 polyster)
6. Chemical composition in cosmetics – creams , perfumes, talcom powder, deodorants, lipstics, nailpolish, shampoo and hairdye.
   Paints and varnishes their composition and uses.

References

1. Conceptual chemistry for class XI by S.K Jain / R. Chand.
2. NCERT Chemistry for class XI & XII.
3. Pradeep's new course chemistry class XI & XII by S.N Dhawan, Kheterpal & P.N Kapil.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs.

1. Preparation of solutions (Normal / Molar) sodium hydroxide, sodium carbonate and hydrochloric acid.
2. Preparatio of crystal of copper sulphate and potashalum.
3. To determine the normality and strength of given sodium hydroxide solution by volumetric titrations using phenolpthalein as an indicator.
4. To determine the normality of the given Hcl solution by titrating it against standard sodium carbonate solution using methyl orange as an indicator.

B.Sc. HOME SCIENCE
Semester – I
Human Physiology

Couse No. 103
M.M :45

Periods/wk.: 3
Time: 3 Hrs.

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Cell Biology – Animal cell structure.
2. Cardiovascular system – Blood and its composition, Blood groups, coagulation of blood, structure and functions of heart, blood pressure and its regulation.
3. Skeletal System – Functions, names and number of different bones, joints of skeleton their names with examples.

Unit-II

4. Digestive system – structure and functions of various parts of alimentary canal Digestion and absorption of food. Functions of liver, pancreas and salivary glands.
5. Reproductive system – Structure of reproductive organs in a women, menstrual cycle, physiology of pregnancy parturition, lactation and menopause.

Unit-III

6. Nervous system – Structure and functions of brain , spinal cord and nerve cell.
7. Excretory system – Structure and functions of kidney , formation of urine, functions of skin, regulation of temperature of body.
8. Respiratory system – Structure of lungs mechanism of respiration and its regulation, O_2 and CO_2 transport in blood.

References

1. Chaterzee (1988) Human Physiology, Calcutta , Medical agency.
2. Pears E.C (1988) , Anatomy and Physiology for nurses – Delhi oxford University, Press.
3. A text book of biology – Dhami and Dhami Pradeep Publications.
4. Gyton A.C., Hall , J.E 1996 : Textbook of medical physiology, 9th Ed, prism Books (Pvt) ltd. Bangalore.

Practical

M.M : 25
Periods/wk.: 2
Time: 3 Hrs.

1. Study of Human skeleton.
2. Blood Cells : Fresh mount and stained.
3. Determination of haemoglobin percentage in blood.
4. Coagulation of blood and blood grouping .
5. Measurement of blood pressure using sphygmomanometer.
6. To study human systems through charts & models.

B.Sc. HOME SIENCE
Semester – I
Introductory Clothing and Textiles

Course No. 104 M.M : 45

Periods/wk.: 4
Time: 3 Hrs.

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit- I

Sewing

1. Equipment and tool for measuring , drafting , pinning marking, cutting and sewing.
2. Sewing Machine - Parts and functions, basic operations , defects and remedies, care and maintenance required.

Unit-II

1. Preparation of fabric before cutting . Pattern layout , pinning marking and cutting.
2. Importance of taking body measurements and Important body landmarks.

Unit- III

1. Importance of clothing.
   Why do we wear clothes ?
2. Selection of suitable fabrics according to climate, occasion , occupation , fashion and design.

References

1. Baines , S. and Huttan, J. Singer sewing Book.
2. Doongaji , Basic process and clothing construction , 6ed. New Delhi, Raj Prakashan.
3. Dhantyagi, S, Fundamentals of Textiles and their care, 4th ed. New Delhi, Orient Long mans, 1983
4. Wingate, B Isable, Textile fabrics and their selection 7th ed. Engle wood Chilfit

Practical

M.M: 25

Periods/wk.: 3
Time: 3 Hrs.

1. Sewing Techinques – Basic stitches, seams and seamfinishes , Disposal of fullness – gathers and pleats placket openings, finishing of necklines , fasteners.
2. Decorative embroidery stitches.
3. Taking body measurements.
4. Drafting and stitching of apron with patch pockets , child's panty and bib.

B.Sc. HOME SCIENCE
Semester I
Hygiene and Public Health

Course No. 105 MM: 45
Periods/wk.: 3
Time: 3 hours

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit – I

1. Health – Definition.
2. Infections diseases – Cause , Symptoms, mode of spread, treatment and prevention.
   - i) Disease spread through food and water – Cholera, Diarrhoea, Hepatitis, Typhoid.
   - ii) Disease spread by insects – Malaria, Dengue.
   - iii) Disease caused by air – Chicken Pox, T.B
   - iv) Disease spread by contact and soil-leprosy , tetanus.
   - v) Sexually transmitted disease – AIDS, Syphillis, Gonorrhoea.

Unit -II

3. Community – Definition and types of community, vaccination schedule (Triple vaccine, BCG, Polio drops etc.)
4. Personal Hygeine – Physical health, regular habits in daily living, eating and eliminating, cleanliness of body and different organs, rest and sleep.

Unit – III

Community water & waste management

Importance of water to community , sources of contamination, Household measures of purification of water, waste disposal – Sewage disposal & treatment, solid waste & liquid waste disposal.

References

1. Hygiene and preventive medicine – Yashpal Bedi
2. Home Management and Hygeine – Sweera Rehtan, Dinesh Pub.
3. Textbook of Preventive & social medicine by Park & Park.

B.Sc. HOME SIENCE
Semester – I
Basic Foods

Course No. 106 M.M: 45
Periods/wk.: 4
Time: 3 Hrs.

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit- I

a. Food – Definition and functions.
b. Food groups and food guide pyramid
c. Concept of Nutrition – Basic terms used in the study of nutrition.
d. Food Intake and regulation of hunger.

Unit – II

a. Basic terminology used in food preparation.
b. Cooking :
   1. Definition, Objectives and principles of cooking.
   2. Different methods of cooking , their advantages and disadvantages.
c. Enhancing nutritional quality of foods – germination, fermentation , supplementation, substitution, fortification and enrichment.

Unit – III

a. Food adulteration, types of adulterants, adulterants in common foods.
b. Pesticide residues in foods.
c. Food laws and standards – PFA , Essential Commodities Act, FPO, AGMARK, BIS.

References

1. Srilakshmi , B. (2001). Food Science. New Age International Pvt. Ltd., New Delhi.

2. Manay N.S. and Shadaksharaswamy M. (2005) Foods facts and principles. Seconds edition . New Age International (P) Ltd. , Publishers, New Delhi.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs.

1. Controlling Techniques weights and measures , standard and household measures for raw and cooked foods.
2. Table setting and table manners.
3. Preparation of minimum two dishes each using common methods of cooking.
4. Preparation of food items by fermentation, and germination.

B.Sc. HOME SCIENCE
Semester II
English Language and Communication Skills –II

Course No. 201 M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory. It will comprise of translation of a passage of about ten lines, from Hindi to English. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit – I Presenting Information

a. Examining formats for presenting information
b. Evolving strategies for presenting information
c. Preparing and presenting a report

Unit – II

a. Focusing on emotive content of messages
b. Identifying attitudes and point of view
c. Turm-taking skill-stating
d. Fact / opinion, agreeing / disagreeing
e. Suggesting, representing, etc.
f. Identifying gender bias
g. Sensitising to non-verbal aspects of communication

Unit – III

a. Paragraph writing
b. Letter writing – formal and informal
c. Comprehenssion Passage – Reading a passage and answering questions given at the end to test the understanding of students.

References

1. Sarah Freeman : Written Communication, Orient Longman 1978.
2. Ranu Vanikar : Corridors to Communication, Orient Longman , 1984.
3. Tickoo, M.L. : Writing with a purpose, Oxford University Press, 1980.
4. Ranu Vanikar and Katayan Palia : Networking – Strategies for Communication in English Oxford University Press, 1995.

B.Sc. HOME SCIENCE
Semester II
Applied Physics

Course No. 202 M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. **Introduction to properties of matter**
   a) Properties of solids - a) Density , specific gravity , elasticity, hardness ,maleability, ductility.
   b) Properties of liquids :- Surface tension ,capillary action ,Archimedes principle, specific gravity of liquids.
   c) Properties of gases :- Elasticity , compressibility, atmospheric pressure.

Unit – II

2. **Mechanics**
   a) Simple machines – Mechanical advantages , efficiency lever, screw pulleys, seissors, beaters.
   b) Friction :- Friction,advantages and disadvantages, concepts of ball bearing, sewing floor scrubbing machines.
   c) Centripetal and centrifugal forces, spin dryer in washing machine.
   d) Air appliances :- Vaccum cleaner.

3. **Electricity**
   a) Static and current electricity.
   b) Basic electrical circuits ,units of electrical measurement ,ohm's law and parallel circuits.
   c) Sources of electricity – Dry and storage battery ,grouping of cells ,generator, thermocouple.
   d) Thermal effect- Seebeck effect, thermoelectric thermometer, fuse circuit breaker, toaster, geysers hot plate, water heater, water boiler, steam iron.
   e) Induced Current :- Transformer.
   f) House wiring :- Transfer of energy from the powerpoint to home , kilowatt hour, Meter, distribution of current to the house, number of circuits in a house, methods of installing the wiring circuits and switches.

Unit – III

4. **Heat**
   a) Introduction to heat :- Unit of heat, Source and properties of heat , heat and temperature, heat transfer, humidity, relative humidity and dew point.
   b) Application of heat transfer household thermometers, pressure cooker, vaccum coffee maker.
   c) Refrigeration :- Refrigerator , Compressor and absorption type, cold storage plants.

References

1. Allison Anee : -Running your Home / management equipment.
2. Avery Madelyn (1957) – Householdphysics, Macmillan company.
3. Peet, L.J; Picket, M.S and Arnold M.G (1960) Household equipment, John wiley and sons Inc., Newyork.
4. Narcys Abraham ; Physics for modern times.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. To find out the volume of a given cylindrical body using vernier callipers.
2. To find out the diameter of wire using screw guage.
3. To find out the value of g using simple pendulum.
4. To find out the specific heat of solid.
5. Conductivity by simple method.
6. To verify ohm's law.
7. To verify the law of resistances in series and parallel.

B.Sc. HOME SCIENCE
Semester II
Human Development I

Course No -203

M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. Human Development – Definition of growth, Development, difference between growth and development.
2. Principles of Development – Factors affecting development.
3. Stages of Development.

Unit-II

4. Prenatel Development during three trimesters. various factors affecting prenatal development.
5. Infancy(0-2 years)
   Physical characteristics of the neonate size, weight, height, body proportions, sensory capacities i.e. hearing, vision, taste, smell, touch, temperature and reflexes of a newborn.

   Development tasks, milestone, physical development, motor, social, emotional development, motor, social, emotional cognitive. Factors influencing development.

Unit – III

Age group (2-6 years) –

6. Development tasks, Physical, social, motor, emotional, cognitive, language.
7. Preschool orientation and significance. Factors affecting their development, Importance of play for all round development.

References

1. Berk L.E (1996) CHILD DEVELOPMENT , New Delhi, Pretice Hall.
2. Craif G. (1999) Human development.
3. Santrock J.W (1997) life span Development NY; Brown & Bench-mark.
4. Cole M & cole S (1995) The development of children NY freeman and Co.

Practical

M.M: 25
Periods/wk.: 2
Time: 3 Hrs

1. Developmental assessment of infants and preschoolers.
2. Observing relevant development in each of the following stages.
   a) Infancy (Physical, Motor)
   b) Preschool (Motor, emotional, social, parent child interaction, child-child interaction).
3. Collection of stories and rhymes for children of nursery school.
4. Constructing a game for a 5-6 years old child.
5. Activities for preschoolers.

B.Sc. HOME SCIENCE
Semester II
Introduction to Textiles

Course No -204 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. Textile fibres, characteristics, classification.
2. Manufacture, properties and importance to the consumer of the following fibres :-
   a) Natural plant fibres – Cotton, Linen.
   b) Natural animal fibres – Wool, Silk.
   c) Man made and synthetic fibres – Rayon, Polyster, Polyamide and acrylic.

Unit-II

Study of Yarn –
1. Basic Principles of yarn making -
   Types of yarns – simple, complexor novelty yarns.
   Properties of yarns – fineness and twist, yarn numbering.
2. Importance of blending, important blends and their properties.

Unit – III

Fabric Construction –
1. Weaving – Parts of loom and its working.
   Plain, twill, Satin , Sateen weave and their variations.
2. Knitting – Technology, Types of knit.
3. Other methods – Knotting, Braiding, felting.

References

1. Corbman BP (1985) Textiles fibre to fabric MC Graw Hill,.
2. Joseph M/L (1976) Essentials of Textiles holt ripeniart of Winston, New york.
3. Wingate (1976) Textiles fabrics and their selection eagle wood cliffs (New Jeggery) Prentice Hall Ins.
4. Murray Rosenary (1981). The Essentials handbook of weaving, London Bell and Hyman Ltd.

Practical

M.M : 25
Periods/wk.: 3
Time: 3 Hrs

1. Identification of through visual inspection microscopic, burning and chemical tests.
2. Sample collection for various textiles and weaves.
3. Basic stitches of knitting and following of knitting instructions, Making five samples.
4. To estimate the thread count of fabrics.

B.SC. HOME SCIENCE
Semester II
Applied Botany

Course No. 205 M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1) Introduction to home gardening.
2) Soil- structure, soil profile, components, different types of soil, tillage.

Unit - II

1) Principles and layout of kitchen garden, utilization of space by intense successive cultivation, crop rotation, role of microorganisms in soil fertility, inter- cropping, raising of healthy seedling.
2) Economic Botany – commonly used herbal and medicinal plants –Neem, Aloe vera, Tulsi, garlic , ginger.

Unit - III

1) Lawn –planning and maintenance
2) Terrace gardening – its application in growing vegetables and ornamental plants in pot.
3) Vegetative propagation by plants – cutting , layering and grafting (with suitable examples) tissue culture – its importance in plant breeding.

References

1) Gopalswamianger K. S.1991, Complete Gardening in India . M. S. Nagaraj and Co. Madras.
2) Bose T.K. and Soni, M.G. Vegetable Crops in India. Naya Prakash, Calcutta.
3) Kumar S. Home Gardening. Phoenix Publication New Delhi.1996.
4) Shreemali J. L. Economic Botany. Kitab Mahal, Allahabad.

B.Sc. HOME SCIENCE
Semester II
Fundamentals of Nutrition

Course No -206 M.M : 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

Definition, Classification, functions, sources, RDA, effects of deficiency and excess (in brief) of –
A. Carbohydrates
B. Proteins
C. Lipids

Unit-II

Functions, sources, RDA, effects of excess and deficiency (in brief) of:
A. Fat soluble vitamins – Vitamin A,D,E & K
B. Water soluble vitamins – Vitamin C, B, B_2, B_6, B_{12}, niacin and folic acid.
Water – Functions and sources of water for human body, effects of excess and less intake of water on human body.

Unit-III

Functions, sources, RDA, effect of excess and low intake of –
A. Macro minerals – Calcium, magnesium, phosphorus, sodium and potassium
Micro Minerals – Iron,iodine and fluorin, fibre – Types, Functions or role of dietary fibre in the human body, sources.

References

1. Bamji, M.S. ; Rao, N.P. and Reddy V. (Editors) (1999). Textbook of Human Nutrition, New Delhi. Oxford and IBH Publishing Co. Pvt. Ltd.
2. ICMR (1990) Nutrient Requirements and Recommended Dietary Allowance of Indians. A Report of the Expert group of ICMR, NIN , Hyderabad.
3. Joshi, S.A. (2002). Nutrition and dietetics. (Second Edition) Tata Mc Graw Hill Pub Co. Ltd .
4. Srilakshmi, B. (2001) Nutrition Science New Age International Private Ltd. New Delhi.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

Planning, Calculation and preparation of the following (2 each) – Energy, protein, Vitamin A, Iron, Calcium, Vitamin C, thiamin and fibre rich dishes.

B.Sc. HOME SCIENCE
Semester III
Extension Education and Rural Development

Course No. 301 M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Concept of extension education- Meaning, principles, philosophy and objectives (Broad and specific)
2. Approaches of extension –Individual, group and mass approach
3. Qualities of extension worker
4. Role of extension worker
5. Non-projected aids- Advantages and limitations

Unit - II

1. Role of extension education in- Agricultural development, Home Science extension
2. Various rural and community development programmes like- IRDP, NREP, ICDS, TRYSEM , ANP, SNP

Unity - III

1. Programme planning- Definition, meaning of the programme, planning, steps in programme planning .
2. Role of voluntary organization in rural development.
3. Role of Home Science in solving rural problems of illiteracy, poverty and poor health.

References

1. Rogers, Alan (1989); Teaching Methods in Extension Education for Development, Westwood Row, Tile Hurst, Reading RG 31 LT England, Woodmans.
2. Reddy, A.(1987): Extension Education, Bapatia, India, Sreelakshmi Press
3. Lynton, Roft P. and Pareek, Uday (1967): Training for development, Homewood, Illworis, Dorsey Press.
4. Fetter, K. Clark, M. Murphy, C. and Walters, J.(1987); Teaching and learning with Visual Aids, London, U.K.,Macmillan.

Practical

M.M: 25
Periods/wk.: 2
Time: 3 Hrs

1. Preparation of non-projected aids-chart, posters, leaflets, pamphlets, mobile, flash card.
2. Preparation of puppets as a media of communication, writing stories for puppets.
3. Visit to a village to see government and voluntary organizations in action.

B.Sc. HOME SCIENCE
Semester III
Human Development II

Course No -302

M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

Late childhood years (6-12 years)

1) Developmental tasks, physical ,motor, social , emotional, cognitive development.
2) School- significance and functions, effects of success and failure .
3) Peer group – importance and function in life.

Unit - II

Early adolescence (12-16 years)

4) Definitions , Puberty- growth, primary and secondary sexual characteristics, Period of storm and stress, Early and late maturers . Parent child conflict.
5) Identity- definition, body image, positive and negative outcome (role confusion, ego identity).

Unit - III

6) Late adolescence (16-18 years)
   Characteristics, physical, social, emotional, cognitive development, conflict with authority, choosing a career & factors influencing it.
7) Influence of peers, accepting heterosexual relationships.
8) Problems – Drug and alcohol abuse, psychological breakdown, STD, AIDS, teenage pregnancy & other behaviour misadjustment, How parents and teachers can help to overcome them.

References

1. Berk L.E (1996) CHILD DEVELOPMENT , New Delhi, Pretice Hall.
Craif G. (1999) Human development.
2. Santrock J.W (1997) life span Development NY; Brown & Bench-mark.
Cole M & cole S (1995) The development of children NY freeman and Co.

Practical

M.M: 25
Periods/wk.: 2
Time: 3 Hrs

1. Observing one child and an adolescent for different developments.
2. Construction and administration of interview schedule and questionnaire to study the problems of adolescents, peer interactions and parent child relationship.
3. Preparing play material and craft activities for middle and late childhood.

B.Sc. HOME SCIENCE
Semester III
Psychology I

Course No -303 M.M: 45
Periods/wk.:3
Time: 3 hours

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

Psychology – meaning, scope & nature; relationship with Home Science.
Method of psychological studies with merits and demerits – observation, experimental methods, interviews technique, questionnaire & case study method.

Unit - II

Relation between mind and body.
Sensation and perception : Nature, attributes, special sensation, fundamental characteristics of perception, functions of sensation and perception.

Unit - III

Attention : Nature and conditions of attention, Inattention.

Emotions : Definition, theories of emotion, influence of environment on emotions.

References

1. Hilgard E.R. Introduction to psychology.
2. Jalota S.S Introduction to psychology.
3. Morgan C.T. Introduction to psychology 1956 . Mc Graw Hill, New York.

B.Sc. HOME SCIENCE
Semester III
Introduction to Home Management I

Course No. 304 M.M:.45
Period\Wk.: 4
Time: 3 hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Introduction to Management - Definition & Concept of Management.
2. Management Process -
   a) Planning - Importance , types of plan
   b) Controlling - Energizing, checking, adjustment
   c) Evaluation - Types, techniques of self evaluation
3. Decision Making –
   a) Types of decisions
   b) Steps is decision making
   c) Factors affecting decision
   d) Inter-relatedness of decision

Unit-II

4. Factors Motivating Management.
   a) Values - Introduction and classification
   b) Goals - Definition, Classification
   c) Standard- definition, classification

5. Resources in the family
   a) Classification
   b) Factors affecting use of resources
   c) Similarities among resources.

Unit - III

Management of specific resources

6. Time-steps in time plan, tools is time plan
7. Energy-energy cost of various activities, fatigue, types, causes & effect, managing energy

References

1. Chatterjee- S.S.1960 An introduction to management its principle & techniques world press private ltd.
2. Deacon, Ruth E & Firodabagh F.M.1975 – Home management- context and concept Boston Houghton Mifflin company.
3. Gross I.H.& crandell E.W 1963 Management for modern families, Appleton centurion crofts, New York.
4. Nickell, I.P. Dorsary, J.M.1983, Management in the family living, Wiley eastern Ltd. New Delhi.
5. Rustomji M.K.1983 Art of management, Delhi Mac Milan India Ltd.

B.Sc. HOME SCIENCE
Semester III
Laundry Science and finishing fabrics

Course No -305 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit- I

1. Laundry equipments and their use.
2. Soaps and supplies – Soaps and detergents – Stiffening Agents – Blueing Agents, Bleaching and other Laundry reagents, grease absorbants and solvents, Dry cleaning of clothes (principle & use)
3. Stains – Classification stains, methods of removing different types of stains;
   Storage of clothes.

Unit - II

1. Fabric finishes
   a) Physical – Singing, napping, sizing,tentering and calendring.
   b) Chemical – Bleaching, Mercerizing.
   c) Special purpose finishes – Wrinkle resistant, Water resistant & repellant, flame retardent.

Unit-III

1. Classification of dyes.
   a) Natural dyes.
   b) Direct, acid, basic, sulphur, vat mordant and disperse dyes.

2. Printing
   i) Styles of printing –
   Direct, Discharge, Resist, Dyed.
   ii) Methods of printing – Block printing, Roller printing, Stencil and screen printing.

References

1. Deulkar Durga (1988) Household Textiles and Laundry work, AtmaRam and sons. Kashmiri Gate Delhi – 6.
2. Gupta Sushma (2005) Text Book of clothing Textiles and Laundry, Kalyani Publishers New Delhi.
3. Corbman Bp 1985 Textiles Fibre to fabric MC Graw Hill, New york.
4. Joseph M.L. (1976) Essentials of Textiles holt Repeniart of Winston, New York.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Stain removal – Removal of any ten stains.
2. Washing & finishing of cotton (Blouse & saree, salwar kameez,Gathered frock, Gents Shirt, Silk blouse, EmbroideredTable cloth, woolen cardigan, starching of fabrics.
3. Household dyeing, Tie & dye, Block printing, Stencil printing.

B.Sc. HOME SCIENCE
Semester III
Consumer Economics

Course No. 306 MM: -45
Periods/wk.: 3
Time: 3 hours

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

Introduction to economics-

- Basic concepts to economics- goods and services, wants, utility, consumption- meaning, laws of consumption.
- Demand and supply- laws and importance.
- Markets- types and functions of market.

Unit - II

- Consumer- definition, role of consumers in the economy, consumer buying motives- primary selective, rational, emotional and patronage.
- Consumer buying problems- adulteration , faulty weight and measures, false advertisements, incomplete label , monopoly and other malpractices in market.
- Buying aids – labels , packaging and advertising .,buying guides ,role of educational institutions.

Unit - III

- Rights and responsibilities of consumer.
- Consumer education- meaning needs, objectives,media and the consumer.
- Laws for consumer protection ,consumer organizations.

References

1. Sarkar A-Problems of Consumer's in Modern india,Discovery Publishing house.
2. Cochrane W.W and Bell C.S the economics of consumption Mc Grew Hill.
3. Singh Gubax- Law of consumers protection Jaipur Bharat Law Publishers.
4. Aggarwal Anju D(1989)-Practical handbook for consumer Bombay India book house.
5. Seetharam P&Seth M 2001 consumerism: strategies and tactics CBS.

B.Sc. HOME SCIENCE
Semester III
Food Science -I

Course No-307 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit- I

1. Food science and its application.
2. Food technology and future foods. Biofortification ,Nutraceuticals, Organic foods, Space foods, Packaging of foods, Biotechnology.

Unit II

3. Cereals and cereal products – composition and nutritive value of wheat , rice, their milling and processing ,storage, use in various preparations, breakfast cereals, millets like corn, jowar, ragi, bajra, cereal cookery.
4. Pulses and legumes- nutritive value , processing , storage, toxic constituents, pulse cookery, variety.

Unit III

5. Milk and milk products- composition , nutritive value, effect of heat ,acid and enzymes.,processing, storage, use in different preparations., milk products.
6. Sugar and related products- nutritive value, properties, sugar related products , stages in sugar cookery, sugar cookery, artificial sweetners.

References

1. Food science, B. Srilakshmi, New age International publishers.
2 Introductory Foods- Hughes, O. and Bunion, M , Mc Millan and co, New York.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

Preparation , serving and evaluation of recipes.

1. Any five beverages.
2. Any two breakfast cereal preparations.
3. Any two pulao's , two stuffed paranthas,twofermented cereal preparations ,pasta preparations,curd rice, tamarind rice, lemon rice, poha, upma plus two morecereal preparations of choice.
4. Pulse – any five recipes.
5. Milk and milk products- Any five preparations.
6. Any five snacks and desserts.
7. Any two ice-creams.
8. Any two types of cakes and biscuits.
9. Any two types of sandwiches.
10. Any two types of chikkis.

B.Sc. HOME SCIENCE
Semester IV
Community Development and Communication

Course No. 401 M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

Communication-

1. Meaning, scope and importance of communication.
2. Elements of communication.
3. Problems of communication with special reference to India.
4. Models of communication and various types of communication

Unit - II

1. Classification of teaching methods according to form and use. The scope , advantage and limitations of different extension methods.
2. Panchayati raj system- meaning, functions, organizational set up, problems
3. Principles of democratic decentralization

Unit - III

1. Classification of audio- visual aids- different aids, their scope, advantage and limitations, factors limiting the selection and use of audio-visual aids.
2. Use of radio talks, television, personal talk, conferences, tours, campaigns, village fair

References

1. Roy, G. L. (1991):Extension Communication Management, Calcutta, Naya Prakash.
2. Jain,R. (1993): Mass Media and Rural Development. Vol II, New Delhi, Manak Publications Pvt. Ltd.
3. Thakur, B. S. and Agarwala , C. (1989): Media utilization for the Development of Women and Children, New Delhi, Concept Publishing Co.
4. Mody Bella. (1991): Designing messages for Development Communication, New Delhi, Sage Publications.

Practical

M.M: 25
Periods/wk.: 2
Time: 3 Hrs

1. Use of any five non- projected aids to educate rural women on different aspects
2. Preparation of projected aids- Transparency and power point presentation
3. Use of puppet as a media of communication
4. Preparing a radio talk on any topic .

B.Sc. HOME SCIENCE

Semester IV

Human Development III

Course No. 402 M.M: 45

Periods/wk.: 3

Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit – I

Young Adulthood (19-40years)

1. Definition, Development tasks, significance of the period, responsibilities and adjustment, new family, workplace, parenthood, independence, financial matters.
2. Sex role issues & implication for young adults.

Unit – II

Middle adulthood (41-60years)

3. Definition, physical changes (senses & diseases) Menopause, health issues, stresses in middle age, coping with stress at family & work place.
   Occupation and job satisfaction, preparation for retirement.

Unit –III

Late adulthood & Ageing(beyond 60 years)

4. Definition, Psychological changes, health problems, cognitive & memory change.
5. Retirement – Effect an self, family, society, identity and friendship.
   Problems of oldage and coping strategies.

References

1. Berk L.E (1996) CHILD DEVELOPMENT , New Delhi, Pretice Hall.
2. Craif G. (1999) Human development.
3. Santrock J.W (1997) life span Development NY; Brown & Bench-mark.
4. Cole M & cole S (1995) The development of children NY freeman and Co.

B.Sc. HOME SCIENCE
Semester IV
Psychology II

COURSE NO 403

M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks..

Unit - I

1) Motivation – definition, types of motives.
2) Learning- meaning ,nature and types of learning, principles of learning , factors affecting learning, effect of motivation on learning.

Unit - II

1) Intelligence- definition , theories of intelligence, development and measurement.
2) Thinking Imagination-
   a) Concepts and other tools of thinking.
   b) Reasoning as related to imagination and thinking.
   c) Imagination- nature and and development.

Unit - III

Personality-

a) Definition, concept and types.
b) Assessment of personality.
c) Factors influencing personality (biological and social).
d) Freud's theory of personality.

Memory-

a) Definition and analysis.
b) Forgetting.
c) Improvement.

References

1. Morgan C.T. Introduction to psychology.1956.McGraw Hill, NewYork.
2. Hillgard E.R. Introduction to psychology. 1958. NewYork.
3. Murphy G. An Intrduction to psychology. Harper and Row , New York.

B.Sc. HOME SCIENCE
Semester IV
Institutional Management

Course No. 404 M.M: 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

Catering Management – Definition & scope organization of spaces –

a. Kitchen spaces – Work space, work surfaces, lighting, ventilation.
b. Storage spaces – Location; types; sanitation, safety and security of stores.
c. Service areas – Location & planning.

Unit – II

Menu Planning – Planning and writing mens, types of menus, use of menu.
Food service – Various styles of service.

Unit – III

Food Cost Control
Why control food costs, costing of dishes, meals and events.
Pricing
Methods of pricing, factors affecting pricing.

References

1. Catering Management – An integrated approach – Mohin Sethi & Surjeet Malhan wiley eastern limited, New Delhi
2. Our Food – Planning, Preparation & preservation, Dr.(Mrs.) Usha Singhal, Kem publishers.

B.Sc. HOME SCIENCE
Semester IV
Garment Construction & Apparel Science

Course No. 405 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks..

Unit - I

1. Selection of garments for Infants, Toddlers, preschool, school going children.
2. Selection of garments for teenagers, adults and people of old age.
3. Selection of household linen, curtains, draperies and towels.

Unit –II

Construction Techniques –

1. Drafting
2. Paper patterns
3. Draping

2. Renovation of clothes.
3. Fit – Definition, Recognizing correct fit using structural lines, balance and ease to evaluate fit. Common problems encountered and remedies for fitting defects.

Unit –III

Fashion in Dress

1. Sources of fashion
2. Factors favouring and retarding fashion
3. Buying criteria for readymade garments.

References

1. Baines, S. and Hutton, J.Singer Sewing Book.
2. Doongaji, Basic processes and clothing construction, 6ed., New Delhi, Raaj prakashan.
3. Dhantyagi, S. Fundamentals of textiles and their care 4th ed., New Delhi, Orient Longmans 1983.
4. Wingate, B. Isable, Textile fabrics and their selection. 7th ed., Eaglewood chilft, prentice Hall,1976.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Drafting of child's bodice block with and collars. Construction of 'A' Line or a frock with gathers.
2. Drafting and stitching of salwaar and kameej.
3. Drafting and stitching of paticoat.

B.Sc. HOME SCIENCE
Semester IV
Introduction to Home Management-II

Course No. 406 M.M.: 45
Period\Week: 4
Time: 3 hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit-I

1. Ergonomics in home— An introduction
2. Work simplification – Body mechanics, techniques in work simplification, classes of charge in work simplification.

Unit-II Financial Management

3. Income- types of income, budget, definitions
   Steps in making budget, factors affecting budget

4. Saving- Objective, types of Saving-Bank, insurance, provident fund, Credit- its use, types of credit.

5. Taxation- Types- direct & indirect. Basic calculation of income tax

Unit-III Introduction to art.

6. Definition of art, elements of art- line, form texture, color, pattern, shape, light, space,
   Color – classification, dimension, color scheme
7. Use of traditional art in floor decoration.

References

1. Gross I.H.& crandell E.W 1963 Management for modern familiar Appleton centurion crofte, New York.
2. Nickell, I.P. Dorsary, J.M.1983, Management in the family living, Wiley eastern Ltd. New Delhi.
3. Steidle and Bratton 1967 work in the Home John wiley and sons, New York.
4. Seetharaman P, Batra S.& Mehran P 2005. An introduction to family resource management, CBS
5. Dalela S. & Saurabh 1999, textbook of work study and ergonomics. Standard publishers.

Practical

M.M:. 25
Period\week: 3
Time:3 hrs

1. Making budget for LIG, MIG, HIG.
2. Pathway chart for time and energy management.
3. Calculating income tax.
4. Making color wheel and color schemes-complementary, monochromatic, triad, analogous.
5. Floor decoration-Alpana and Rangoli

B.Sc. HOME SCIENCE
Semester IV
Food Science II

Course No. – 407

M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Vegetables and Fruits- classification, composition ,nutritive value,selection, vegetable cookery storage, post harvest changes in fruits, enzymatic browning, use in different preparations.

2) Fats and Oils- Nutritional importance, types, composition,processing, rancidity, smoking point ,storage, use in different preparations, specific nuts and oilseeds- their nutritive value (in brief).

Unit - II

3) Eggs- composition, quality of eggs, egg cookery, use of egg in different preparations.
4) Meat ,fish and poultry- Meat- composition , and nutritive value, postmortem changes,ageing of meat, tenderizing of meat ,curing of meat , cuts and grades of meat , meat cookery, storage.
Fish- types, composition, fish cookery, spoilage, storage.
Poultry – types, composition, and nutritive value, cooking of poultry, storage.

Unit – III

5) Spices and condiments – classification description, uses, procurement and storage. Anote on herbs.
6) Raising and leavening agents – Types, uses in cookery and bakery, storage.
7) Evaluation of food quality – Sensory evaluation, types of tests, objective evaluation, instruments used for texture evaluation.

References

1. Food science, B. Srilakshmi, New age International publishers.
2. Introductory Foods- Hughes, O. and Bunion, M , Mc Millan and co ,Newyork.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

Preparation of jams, jellys , chutneys, pickles, marmalades, murabbas.

B.Sc. HOME SCIENCE
Semester V
Family Dynamics

Course No. 501 M.M : 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks..

Unit-I

1. Marriage

- As an institution, needs and goals
- Criteria for successful marriage.
- Adjustments in marriage.
- Factors influencing planned parenthood.
- Inter-caste and inter-religious marriage.

Unit-II

2. Family

- Definition, functions of family.
- Family life cycle stages.
- Changing trends in India due to westernization and modernization (family values, ideologies, family structure, social change).
- Alternate family styles – single parent family, DINK families (Double income no kid), latch key children and families with adopted children.

Unit - III

3. Internal relations within the family

- Individual roles, rights and responsibilities within the family.
- Areas of adjustments with in the family at different stages of family life cycle – parents, siblings, children and others.
- Crisis in a family – bereavement, divorce, long illness, birth of a handicapped child.

References

1. Corser, Rose (1975); The family; its structure and function, New York, Mac Publishing Co.
2. Guppy, G R (1976); Family and Social Change in modern India, New Delhi, Vikas Publishing Co.
3. Gore, MS (1978); Urbanization and family change in India, Bombay, Popular Prakashan.
4. Rao P. and Rao V N (1982); Marriage – The family and women in India, New Delhi, Vikas Publications.
5. Srivastava, AK (1986); Social class and family life in India.

B.Sc. HOME SCIENCE
Semester V
Childcare & Rearing Practices

Course No. 502 M.M : 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Pregnancy – Signs, discomforts, care of expectant mother.
2. Confinement, types and stages of delivery and care of the new born.
3. Feeding, weaning and supplementary food.

Unit - II

4. Sleep routine
5. Toilet training and hygienic practices
6. Role of mother in training of the infant.

Unit - III

7. Problems:

- Regarding feeding
- Sleep disorders
- Excessive fear
- Bed wetting
- Thumb sucking
- Sibling rivalry
- Separation anxiety
- Speech disorders

References

1. Arya and Subhash C.; Infant Child Care for the mother, Vikas, New Delhi 1972.
2. Bernard, H W and Fullner D.W; Principles of Guidance, Allied Publishers 1972.
3. Ambron S R; The developing Child, Chase Busellg Illinoise 1975.

Practical

M.M: 25
Periods/wk.: 2
Time: 3 Hrs

1. Visit to a childcare center in a hospital.
2. To study regarding toilet training practicals in different income groups using observation and interview method.
3. Study of children suffering from sibling rivalry and separation anxiety in the age group below 5 years.
4. Study of feeding patterns of different income group children using observation method.
5. To know the awareness level of pregnant women (educated and illiterate) using interview method.

B.Sc. HOME SCIENCE
Semester V
Nutritional Biochemistry I

Course No. 503 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Introduction to Biochemistry – Definition, objectives, inter-relationship between biochemistry and other biological sciences.
2. Enzymes – Definition, classification, different types of coenzymes, specificity of enzymes, factors affecting enzyme activity, enzyme kinetics, cofactors, enzyme inhibition (competitive and non-competitive).
3. Vitamins – Biochemical role of vitamins A, D, E and K, B_1, B_2, B_3, B6 and Vitamin C.

Unit - II

4. Carbohydrates – Definition, classification, structure and properties of:- Monosaccharide – glucose, fructose, galactose.
   Disaccharides – Maltose, lactose, sucrose
   Polysaccharides – Starch, glycogen ; glycolsis and gluconeogenesis, glycogenesis, glycogenolysis (Complete cycles with structures).

Unit - III

5. Proteins – Definition, classification, structure and properties. Amino acids and their types, structure. General reactions of amino acids metabolism (transamino oxidative deamination, decarboxylation) Urea cycle (Complete cycles with structures)

References

1. West E. S. Todd; Textbook of biochemistry – Amerind Publishing Co. Pvt. Ltd.
2. Murry, R K Granner, D K Mayes, PA and Rodwell, V.W (1993); 23rd Ed Harpens Biochemistry.
3. Lehninger, A L Nelson, D L and Cox, M M (1993); 2nd Ed Principles of Biochemistry, CBS Publishers and distributors.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Reactions of Monosaceharides, disaccharides and polysaccharides.
2. Estimation of amount of glucose in the given solution by fehling's soxhlet increment method.
3. To study the properties of aminoacids – tyrosine, tryptophan, arginine cystine and phenylalanine.
4. Identification of aminoacids in aminoacids mixture by circular chromatography technique.

B.Sc. HOME SCIENCE

Semester –V

Community Nutrition

Course No. 504 M.M: 45

Periods/wk.: 3

Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

Nutritional problems of the community and implications for public health.

- Common problems in India
- Causes – nutritional and non-nutritional.
- Prevalence, causes, signs and symptoms, prevention and treatment of PEM, Vitamin A deficiency, iron deficiency anaemia, iodine deficiency and fluorosis.

Unit - II

Schemes and programmes to combat nutritional problems in India.

- Prophylaxic Programmes
- Midday meal programme.
- ICDS

Unit - III

Assessment of nutritional status – dietary survey, anthropometiric measurements, clinical survey, bio-physical and biochemical tests, vital statistics.

References

1. Bamji, M.S; Rao N. P. and Reddy V. 1996; Textbook of Human Nutrition. Oxford and IBH publishing Co. Pvt. Ltd., New Delhi.
2. Shukla, P K ( ) Nutritional problems of India,

Practical

M.M:25

Periods/wk.: 2

Time: 3 Hrs

- Visit to an institution (anganwadi, Govt. school or any other) having mid day mean scheme and writing a report.
- Dietary survey of atleast 5 subjects using questionnaire and 24-hour recall method.
- Taking anthropometric measurements of atleast two subjects (height and weight only) and calculation of BMI.
- Clinical examination of two malnourished pre-school children.

B.Sc. HOME SCIENCE
Semester V
Indian Textiles

Course No. 505 M.M : 45
Periods/wk.: 3
Time : 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

Importance of Indian Textiles in historical perspective.

- Cotton – Muslins and Jamdanis of Bengal and UP Dhotis and saries of Andhra Pradesh, Madhya Pradesh Maharashtra, Karnataka and Tamil Nadu.
- Silks and brocades of Varanasi (Kunkhabs), Bengal (Baluchari) Maharashtra (Paithani), Gujrat (Tanchois), Andhra Pradesh, Tamil Nadu and Karnataka.
- Woollen – Shawls of Kashmir, Punjab, Himachal Pradesh
- Carpet weaving centers of India.

Unit - II

Indian Hand Embroidery

- Origin of embroidery in India, its place in everyday life.
- Embroideries of different regions – Kashmir, Punjab and Haryana, Himachal Pradesh, Uttar Pradesh, Bihar, Bengal, Gujrat and Banjara tribal embroideries,

Unit - III

- Dyeing and Printing – Study with reference to the antiquity of the art of dyeing and printing.

Bandhanis of Rajasthan and Gujrat.

- Batik of Coromandal
- Patola of Gujarat, Ikkats of Orissa.
- Printing and painting – Styles and methods of printing (Hand block printing, Kalamkari)

References

- Chattopadhaya K. D. 1975, handicrafts of India, All India Handicrafts Board, New Delhi.
- Chattopadhaya K. D 1977; Indian Embroidery, Wiley Eastern Limited, New Delhi.
- Das, Sukla, 1992 Fabric Arts heritage of India, Abhinav Publications, New Delhi
- Donerkery, Kamala 1951, The Romance of Indian Embroidery, Thacker and Co. Ltd., Fort Bombay.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. A visit to museum, crafts centres, exhibitions and craft melas
2. Portfolio development of designs in Traditional Textiles as specified in theory.
3. Preparation of at least five samples of traditional embroideries (specific designs and stitches)

B.Sc. HOME SCIENCE
Semester V
Interior Space Design

Course No. 506 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks..

Unit - I

1. Housing &space management, Selection of site, orientation, soil, locality, sanitation facilities etc.
2. principle of planning of room-grouping of rooms, circulation, flexibility, privacy, spaciousness, ventilations,vastu.

Unit - II

3. Building material for construction stone, brick, cement-concrete,plastic,wood,glass, iron.
4. Principle of economic design-
   Economy in plot,economy in planning,economy in construction. Calculating cost of construction.

Unit - III

5. Principle of Kitchen planning-orientation & location, size & shape, ventilation & light, socio economic status of family, cost & aesthetics, storage needs, work centre & work triangle, color & safety.
   Types of kitchen.
6. Care & maintenance of household equipments-refrigerator, washing machine, microwave oven, vacuum cleaner, iron, toaster,cooking range.

References

1. Deshpande R.S(1980)Modern ideal homes for India-Deshpande Publication Trust.
2. Deshpande R.S(1980)-Building your own house united book corporation.
3. Tessie Agan(1980)-The House-its plan & use, New York,J.B lippincott co.
4. Faulkher s.(1977)-Planning a House, Rivehart and winson.
5. Peet, Picket and Arnold-Household equipment 1985 John Wileyand Sons.

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Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Drawing house plan for LIG, MIG, HIG.
2. Planning furniture arrangement and color schemes for different rooms.
3. Cleaning and care of metals , glass & upholstery.
4. Care & Maintenance of equipments- washing machine, vacuum cleaner, refrigerator, microwave oven, iron, toaster, cooking range.

B.Sc. HOME SCIENCE
Semester V
Normal Nutrition

Course No. 507 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit – I

1. Definition of health and Nutrition. Effect of nutrition on health. Energy requirements, Factors affecting energy requirements – BMR, Activity, age, climate, SDA, physiological conditions.

Unit – II

2. Concept of nutritionally adequate diet and meal planning.
   a) Importance of meal planning.
   b) Factors affecting meal planning.
   Nutritional, Sociocultural, religious, geographic, economic, availability of time and material resources.

Unit – III

3. Nutrition at different activity and socioeconomic levels, requirements, nutritional problems and food selection during adulthood, pregnancy, Lactation and old age infancy, preschool, schoolgoing and adolescence.

References

1. Krause M.V & Mahan L.K (1986) ; food, Nuitrition and diet therapy , Alan R. Liss, Saunders Co. Londan.
2. Passmore R. & Davidson S. (1986) Human Nutrition and dietetics. Living stone publishers.
3. Robinson C.H Laer M.R Chenoweth W.L Garwick, A.E (1986) Normal and therapeutic Nutrition Mc Millan Publishing Co. New york.
4. Williams S.R (1989) Nutrition and Diet therapy 4th edition C.V. Mosby Co.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Planning, preparation and evaluation of diets for an adult man and women at different activity and socioeconomic levels.
2. Planning, preparation of diets for a/an.
   a) Pregnant mother.
   b) Lactating mother
   c) Elderly person
   d) Infancy
   e) Preschool Child
   f) School going child
   g) Adolscence
   h) Old Age

B.Sc. HOME SCIENCE
Semester VI
Women Empowerment

Course No. 601 M.M: 45
Periods/wk:. 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks..

Unit – I

a) Status of Indian women – pre, post independence, legal, social, economical, political and educational status.
b) Trends in women's movements in reference to India.

Unit – II

Contemporary problems and issues related to women –
a) Families with marital disharmony.
b) Violence, abuse and dowry victimization of women.
c) Sexual discrimination and exploitation of Indian women.

Unit – III

1. Empowerment of women
a) Mass media and women empowerment.
b) Education, employment and empowerment.
c) Social welfare program and their impart.

2. Home Science Education as Empowerment
Role of homescience for personal growth and professional development.

References

1. Augustine, J.N (Ed) (1992); The family in Transition, New Delhi, Vikas Publishing House..
2. Corser, Rose (1975); The family; its structure and function, New York, Mac Publishing Co.
3. Rao P. and Rao V N (1982); Marriage – The family and women in India, New Delhi, Vikas Publications.
4. Srivastava, AK (1986); Social class and family life in India.

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B.Sc. HOME SCIENCE
Semester VI
Child Welfare

Course No. 602 M.M : 45
Periods/wk.: 3
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Definition, objectives & philosophy of child welfare.
2. National Policy of child welfare.
3. Relevance of child welfare in India.

Unit – II

4. Children with special needs Blind, Deaf & Dumb, meutally retarded children needs, rehabilitation & care.
5. Voluntary Agencies working for child welfare.
6. Family planning programme in India.

Unit – III

7. Problem of school dropouts.
8. Problem of child labour.
9. Nutritional, Educational & Emotional deprivation in children specially girl child.

References

1. ARYA AND Subhash C., infant child care for the mother, vikas New Delhi, 1972.
2. Bernard H.W AND FULLNESS d.w. , Principles of guidance, ALLIED Publishers 1972.
3. Ambron, S.R., The developing child cxhase Burella, Illinoise 1975.

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Practical

M.M:25
Periods/wk.: 2
Time: 3 Hrs

1. Visit to nursery schools, Creches and bal bhawan.
2. Visit to the institutes for children with special needs.
3. Preparing play material and toys for children from 4-6 years old.
4. Survey to know deprivation of girls in different income groups.
5. Involvement in child welfare Activities & write a report on it.
6. To make a resource file regarding child welfare happenings.

B.Sc. HOME SCIENCE
Semester VI
Nutritional Biochemistry II

Course No. 603 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks..

Unit - I

1. Lipids – Definition, classification of lipids, properties of fatty acids,(Acid value, Iodine value and saponification value) (in brief)
2. Lipids – ßoxidation and biosynthesis of fatty acids (cycles with structures) Ketone body formation, Ketosis, fatty livers (Just notes)

Unit - II

3. Biological oxidation – TCA cycle, E.T.C., Oxidative phosphorylation theories.
4. Elementary knowledge of biosynthesis of proteins.

Unit – III

5. Nucleic acids, types , composition, replication, transcription, genetic – code. Structure of DNA & RNA.

References

1. West E. S. Todd; Textbook of biochemistry – Amerind Publishing Co. Pvt. Ltd.
2. Murry, R K Granner, D K Mayes, PA and Rodwell, V.W (1993); 23rd Ed Harpens Biochemistry.
3. Lehninger, A L Nelson, D L and Cox, M M (1993); 2nd Ed Principles of Biochemistry, CBS Publishers and distributors.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Reactions of fats & oils.
2. Determination of acid value of fats and oil.
3. Determination of saponification value of fats & oil.

B.Sc. HOME SCIENCE
Semester VI
Food Microbiology

Course No. 604 M.M : 45

Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit – I

a) Characteristics of moulds ,yeasts and bacteria, useful and pathogenic organisms.
b) Brief history of food microbiology and important micro – organisms in food.

Unit - II

a) Primary sources of micro – organisms in foods.
b) Extrinsic and intrinsic parameters affecting growth and survival of microbes.
c) Food Preservation : Use of high and low temperature, dehydration, freezing, feeze drying, irradiation in food preservation.
d) Contamination and micro – organisms in the spoilage of different kinds of foods and their preservation. – Cereal and cereal products, egg and poultry, milk and milk products, canned foods.

Unit - III

a) Public health hazards due to contaminated foods – food borne infections and intoxication, symptoms, mode and sources of transmission and methods of production.
b) Microbes used in food biotechnology, fermented foods and their benefits.
c) Indices of food, milk, water sanitary qualities, microbiological criteria of food, water and milk testing (Bacteriological analysis)

References

1. Frazier, W.C. and Westhoff, D.C. (1988) : Food microbiology. Fourth edition. Mc Graw Hill Inc.
2. Jay James, M.(1986) . Modern food Microbilogy. Third edition. Van Nostrand Reinhold Company Inc.
3. Sharma P.D. (1996) Microbiology second edition Rastogi Publications Meerut.

B.Sc. HOME SCIENCE
Semester VI
Apparel Designing

Course No. 605 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit – I

Design –

1. Definition – Components of design.
   a) Structural designs - variation yarn, fabric development & finishes.
   b) Applied designs – Dyeing, printing and embroidery.

2. Elements of design –
   i) Line, form and shape analysis and its appropriate use.
   ii) Texture analysis and its use in relation to size, figure occassion and season.
   iii) Colour – Its dimensions, its use and relation to season, occassion, size, figure and occassion.

3. Principles of Design -
   Principles of design as applied to apparel design such as balance, harmony, rhythm, proportion and emphasis.

Unit - II

Figure types and sizes of ready to wear garments
   a) Evaluating the figure.
   b) Standard, ideal, symmetrical figure.
   c) Variations from the standard figure
   d) The asymmetrical figure
   e) Posture evaluation.

Unit - III

1. Elementary Computer aided Designing.
2. Computers in apparel construction.

References

1. Gioello and Berke, 1979 Figure types and size Fairchild publications, New york.
2. Liechty, Pottersberg and Rasband 1986, Fitting and pattern Alration : A multi method approach, Fairchild publicating New york.
3. Margolis, Adole P. 1971 Design your own Dress patterns, Doubleday and Co. Inc. New york.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1. Introduction to elements of design.
   a) Line and form – Geometric, simplified, naturalized and abstract.
   b) Colour – Colour wheel, grey scale and value scale, colour harmonies and colour ways.
   c) Creatind design – Development of motif, placement for all over patterns.

2. Batik on cotton fabric.
3. Preparation of articles using various using various techniques of applied design –
   a) One Household article.
   b) One Apparel.

B.Sc. HOME SCIENCE
Semester VI
Interior Designing

Course No. 606 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit –I

1. Furniture – selection & type
   Furniture arrangement
2. Type of lighting suitable for different areas of the house.
3. Various types of accessories & their place in interior decoration.

Unit –II

4. Soft furnishing – selection, care & maintenance of bed, mattress, slip cover.
5. Window treatment - Basic window treatment, types of curtains.
   Draping fabric – selection & care
   Hanging of curtain – pelmet, swags, valances.
6. Carpet – selection, TYPE & CARE

Unit - III

3. Design – definition & types.
   Principles of design – harmony, balance rhythm, proportion & emphasis.
4. Flower arrangement –
   Styles of flower arrangement & basic shapes of flower arrangement Use of principle of design in flower arrangement.

References

1. Rutt Anna Hng(1961)- Home Furnishing – wiley eastern Pvt. Ltd.
2. Bhat Pranav and Geonka Shanita (1990). The foundation of art and design Bombay Lakhani book depot.
3. Goldstein H and Goldsteen V (1967) art in Everyday life. New Delhi Oxford & IBH Publishing company.
4. Seetharaman P & Pannu P.2005 Interior design and decoration C.B.S.

Practical

M.M: 25
Periods/wk.: 3
Time: 3 Hrs

1) Flower arrangement for different areas in house.
2) Pottery painting & decoration.
3) Making samples of different types of curtains.
4) Creating art pieces using various types of material & techniques like candle decoration, utility article, gift wrapping, greating card, decorative envelops(any two)

B.Sc. HOME SCIENCE
Semester VI
Therapeutic Nutrition

Course No. 607 M.M: 45
Periods/wk.: 4
Time: 3 Hrs

NOTE- The examiner will set nine questions in all, selecting at least two questions from each unit. Question No.I is compulsory and will be set by covering whole of the syllabus. The student has to attempt five questions in all, selecting at least one question from each unit. All questions carry equal marks.

Unit - I

1. Principles of Diet Therapy -
   Modification of normal diet for therapeutic purposes, full diet soft diet, fluid diet, Bland diet.
2. Dietician and the role of a dietician.

Unit – II

3. Causes, types, Nutritional management in following diseases –
   a) GI tract disorders - Diarrhoea & constipation.
   b) Fevers – Typhoid and T.B.

Unit – III

3. Causes, types and Nutritional management in
   a) Weight management – Obesity and under nutrition
   b) Diabetes Mellitus
   c) Hypertension
   d) Kidney disorders.

References

1. Krause M.V & Mahan L.K (1986) ; food, Nutrition and diet therapy , Alan R. Liss, Saunders Co. Londan.
2. Passmore R. & Davidson S. (1986) Human Nutrition and dietetics. Living stone publishers.
3. Robinson C.H Laer M.R Chenoweth W.L Garwick, A.E (1986) Normal and therapeutic Nutrition Mc Millan Publishing Co. New york.
4. Williams S.R (1989) Nutrition and Diet therapy 4th edition C.V. Mosby Co.

Practical

M.M:25
Periods/wk.: 3
Time: 3 Hrs

Planning and preparation of diets in the following disease conditions and prescribing modifications –

a) Constipation
b) Diarrhoea
c) Fever – Typhoid
d) Hypertension
e) Diabetes Mellitus
f) Obesity