FACULTY OF SCIENCE

SYLLABI

FOR

B.Sc. HOME SCIENCE - 2nd YEAR

(Composite, Dietetics, Human Development and Family Relations, Apparel and Textile Design, Interior Design & Resource Management)

EXAMINATIONS, 2014
# B.Sc. Home Science– Composite – 2\textsuperscript{nd} Year

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<th>Paper/Subject</th>
<th>Credit Hours</th>
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* Common syllabus for all stream
# B.Sc. Home Science– Dietetics – 2nd Year

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**TOTAL** | 950

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* Common to all Stream
# B.Sc. -Home Science-Apparel & Textile Design- 2nd Year

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* Common to all Stream
### B.Sc. Home Science – 2nd Year – Interior Design & Resource Management

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**TOTAL** | **950** | **950**

* Common to all Stream
B.Sc. Home Science Composite

**PAPER-1:** APPLIED LIFE SCIENCES (Common to all Stream)

**PAPER-A : BOTANY (THEORY)**

Teaching Period: 2 Hrs/week  
Max Marks: 50  
Exam Theory: 45  
Internal Assessment: 05

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

**Unit-I**

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

**Unit-II**

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

**Unit-III**

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

**Unit-IV**

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

PAPER-A : BOTANY (PRACTICAL)

Paper Time : 3 Hrs.
Teaching Period: 2 Hrs/week

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

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

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

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

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


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

- Herbarium: Collection of 25 specimens of ornamental plants.
- Visit to herbal parks and forest to study flora in natural habitat.

**INSTRUCTIONS TO THE EXAMINER:**

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

**Recommended Readings:**

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

APPLIED LIFE SCIENCES (Common to all Streams)

PAPER –B: ZOOLOGY (THEORY)

Teaching Period : 2 hours per week Max. Marks : 50
Exam: 3 Hours Paper:45
Int. Assessment: 05

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

UNIT-I

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

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

3. External feature life history and economic importance of Earthworm

Unit-II

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

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

6. Economic Zoology: Elementary knowledge of the following
   - Apiculture
   - Sericulture
   - Vermiculture
B.Sc. Home Science Composite

Unit-III

7. Human Genetics:

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

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

Unit-IV

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

PAPER-B: ZOOLOGY (PRACTICAL)

Teaching Period: 2 hours per week  Max. Marks: 50

Exam: 3 Hours  Paper: 45

Int. Assessment: 05

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

Books Recommended

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

INSTRUCTIONS FOR EXAMINER

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

INSTRUCTIONS FOR STUDENTS

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

**PAPER -2: APPLIED PHYSICAL SCIENCES (Common to all Stream)**

**PAPER – A: CHEMISTRY (THEORY)**

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

**Unit – I**

Essentials of Chemistry

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

**Unit – II**

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

**Unit – III**

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

**Unit – IV**

- Cosmetics: - Brief study and elementary idea about ingredients- cold cream, vanishing cream, lipstick, mascara, depilatories and dentifrices. Use of fluoride toothpaste and chemistry of cold cream.
- Chemistry in medicine- Anti pyritics, Sulpha drugs and anti malarial drugs.
- Polymers – Definitions and classification.
- Polymers in textiles: Chemistry of synthetic fibers- Nylon, Polyester and Acrylic fibers.
- Fertilizers: - Nitrogen, Potassium and Sulphur.
B.Sc. Home Science Composite

- Elementary idea about paints, varnishes, lacquers, enamels, emulsion paints, pigment value concentration, failure of paint film.

**INSTRUCTION TO EXAMINERS**

- Total nine questions to be set out of which five to be attempted (two questions from each unit)
- One compulsory question covering the whole syllabus may be set in the form of objective / fill in the blanks / short notes etc.
- Each question carries 9 marks.
- Internal choice can also be given.

**PAPER – A: CHEMISTRY (PRACTICAL)**

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

**Suggested books:**

- Applied chemistry for Home Science and Allied science by Thanhamm Jacob
- NCERT books of + 1 and + 2.
- Engineering books by Jain and Jain.
B.Sc. Home Science Composite

APPLIED PHYSICAL SCIENCES

PAPER-B: PHYSICS (THEORY)

Teaching Time :  2 hours/ week  Total marks :  50
Exam Time :  3 hours  Paper (Theory) :  45
Internal Assessment :  5

CONTENTS

Unit-I

Mechanics:

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

Unit-II

Sound:

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

Unit-III

Atomic Physics

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

Unit-IV

Nuclear Physics

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

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

Instructions to Examiner

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

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

- Each question carries 9 marks.

- Internal choice can also be given.

PAPER-B: PHYSICS (PRACTICALS)

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

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

1) Measurement of diameter of a small spherical body using Vernier Callipers.

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

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

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

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

6) To verify first law of transverse vibrations in a string using sonometer.
B.Sc. Home Science Composite

7) To verify second law of transverse vibrations in a string using sonometer.

8) To find velocity of sound at 0°C using first resonance position and by applying end correction.

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

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

11) To verify Ohm’s law.

Books Recommended

1) A very M., Household Physics.

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

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

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

5) Khanna & Bedi, Textbooks of Sound.

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

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


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

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

UNIT I (ENVIRONMENT)

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

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

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

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

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

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

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

8. **Indoor Environment:**
   Pollutants and contaminants of the in-house environment; problems of the environment linked
   to urban and rural lifestyles; possible adulterants of the food; uses and harms of plastics and
   polythene; hazardous chemicals, solvents and cosmetics.
9. **Global Environmental Issues:**
Global concern, creation of UNEP; Conventions on climate change, Convention on biodiversity; Stratospheric ozone depletion, dangers associated and possible solutions.

10. **Indian Laws on Environment:**
Indian laws pertaining to Environmental protection: Environment (Protection) Act, 1986; General information about Laws relating to control of air, water and noise pollution. What to do to seek redressal.

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

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

13. **Human Population and Environment:**

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

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

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

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

**UNIT II (ROAD SAFETY)**

1. Concept and Significance of Road Safety.
2. Role of Traffic Police in Road Safety.
4. Traffic Signs.
5. How to obtain Driving License.
7. Common Driving mistakes.
8. Significance of First-aid in Road Safety.
9. Role of Civil Society in Road Safety.
Examination Pattern:

- Seventy multiple choice questions (with one correct and three incorrect alternatives and no deduction for wrong or un-attempted question).
- The paper shall have two units: **Unit I (Environment) and Unit II (Road Safety).**
- Unit I shall comprise of 50 questions with minimum of 2 questions from each topics 1, and 12 to 15 and minimum of 4 questions from topics 2 to 11.
- Unit II shall comprise of 20 questions with minimum of 1 question from each topics 1 to 10.
- The entire syllabus of Unit I is to be covered in 25 hours and that of Unit II is to be covered in 10 hours.
- All questions are to be attempted.
- Qualifying Marks 33 per cent i.e. 23 marks out of 70.
- Duration of examination : 90 minutes.
- The paper setters are requested to set the questions strictly according to the syllabus.

Suggested Readings

2. Road Safety Signage and Signs (2011), Ministry of Road Transport and Highways, Government of India.

Websites:

(a) [www.chandigarhpolicenic.in](http://www.chandigarhpolicenic.in)
(b) [www.punjabpolicegov.in](http://www.punjabpolicegov.in)
(c) [www.haryanapolicegov.in](http://www.haryanapolicegov.in)
(d) [www.hppolicenic.in](http://www.hppolicenic.in)
B.Sc. Home Science Composite

PAPER -4: FAMILY DYNAMICS
(Common to Composite & Human Development and Family Relations)

Teaching Period : 2 hrs./week

Paper: 45
Internal Assessment: 05
Total: 50

Instructions for Paper Setters:

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

Objectives:

• To introduce students to family structure and socialization of the child.
• To orient the students with the changing trends in family and marriage.
• To acquaint the students with issues related to family and parenting.

Unit I

1. Family as a social institution: It’s changing structure.
2. Family structure and socialization.

Unit II


Unit III

5. Family trends: Single parent family, Childless family, Dual earner family, Live in relationships, Joint and Nuclear family.
6. Parenting responsibilities- Physical, social, emotional, financial and legal responsibilities.

Unit IV

7. Parents’ contribution in fostering developmental needs of children such as learning, social, emotional and cognitive development.
8. Family well-being.
REFERENCES:


B.Sc. Home Science Composite

PAPER -5: APPLIED NUTRITION (Common to Composite & Dietetics)

(THEORY)

M Marks: 75
Paper Marks: 65
Int Assess: 10
Teaching Pds: 03/week

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

Objectives
This course will enable the student to-

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

SYLLABUS

Unit- I

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


3. Body Composition and changes through the life cycle.

Unit-II


5. Proteins - Assessment of Protein quality (BV, PER, NPU) Digestion and Absorption, factors affecting protein bio- availability including antinutritional factors, Requirement, Deficiency.
6. Lipids- Digestion and absorption, Intestinal resynthesis of triglycerides Types of fatty acids, role and nutritional significance.

Unit- III

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

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


Unit – IV

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

11. Water – Functions, requirements.

12. Methods of processing for the enhancement of nutritional quality of diets by:

   Supplementation.
   Germination
   Fermentation
   Fortification
   Enrichment

13. Food Adulteration: Definition and types of adulterants used in different foods.
B.Sc. Home Science Composite

APPLIED NUTRITION (PRACTICAL)

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

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

Objectives

This course will enable the student to-

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

2. Demonstration of BMR apparatus.
3. Categorization of foods as rich, moderate and poor sources of energy and nutrients.

Reference:
- WHO Technical Reports Series for different Nutrients.
B.Sc. Home Science Composite

PAPER -6: TEXTILE SCIENCE
(Common to Composite & Apparel Textile Design)
(THEORY)

Teaching Period: 3 Hrs/Wk.         M. Marks: 75
Int. Ass: 10
Paper: 65

Instructions for the paper setter:

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

Objectives:
To impart knowledge of –
1. Fibers and their properties.
2. Yarn and its properties.
3. Fabric construction
4. Textile finishes.

UNIT-1

1. a) Classification of Textile fibers
2. Types of Polymers.
   Molecular arrangements and orientation of polymers
   Essentials of fibers forming polymers
   Physical and chemical properties of fiber in general.
3. Textile Fibers- Manufacturing and properties
   Natural- Cotton, Linen, Silk and Wool.
   Manmade- Rayon, Acetate, Polyester, Nylon, Acrylic, Elastomeric fibers, lycra, tincel.

UNIT-II

4. Yarn construction
   a. Mechanical spinning
   b. Chemical spinning-dry, wet, melt, bicomponent, biconstituent, emulsion and solution
   c. Classification of yarn, their properties and uses
1) simple, 2) novelty 3) bulk and textured yarn

B.Sc. Home Science Composite

UNIT-III

5. Fabric finishes
   Bleaching, scouring, singeing, tentering, mercerizing, calendaring, napping, flocking, acid and basic finishes.

6. Special finishes
   Antistatic, bacteriostatic, moth proofing, shrinkage control, flame retardant, water repellant and water proofing, soil and stain resistance, wash & wear and permanent press.

UNIT-IV


References:
1. Introductory Textile Science, M L Joseph
2. Textile fabrics and their selection, Isabel B Wingate and June F Mohler
3. Textiles by Hollen Saddler- Macmillian publishing company, New York
4. Understanding Textiles by P S Tortora-Prentice Hall Inc., New Jersey
5. Fiber to fabric by Corbman.

TEXTILE SCIENCE (PRACTICAL)
Teaching Period : 2 Hrs/Wk.      M. Marks: 50
Int.Ass:    05
Paper:     45

Instructions for paper setters:-
1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and the Sessional work will be of 05 marks each (10 marks)

Objectives:

To impart knowledge about the
   1. different methods of identification.
   2. methods of stain removal & laundering.

Content:
1. Fiber identification- Physical, microscopic, burning and chemical test.
2. Yarn identification and yarn count
3. Fabric identification- (i) Thread count (ii) Weave
4. Stain removal
5. Market survey to see the availability of different yarns and fabrics of different weaves.

References:
1. Fiber to fabric by Corbman.

B.Sc. Home Science Composite

PAPER -7: FOUNDATION OF ART AND DESIGN
(Common to Composite & Interior Design Management)

THEORY

Teaching Period- 2 hrs/week       Marks-50
Paper-45
Internal assessment-05

Objectives:
To enable students -
• To gain better understanding of the application of art principles in interiors.
• To understand the elements of art and design as applied to daily life.
• To gather information regarding building construction technologies and materials used for interiors.

Instructions to the Examiner

Question paper will have four sections. Examiner will set a total of nine questions comprising two questions from each section, and one compulsory question of short answer type covering the whole syllabus. Students will attempt one question from each section and the compulsory question. All questions may carry equal marks, unless specified.

SECTION-A

Unit-I Introduction to foundation of art.

a) Elements of design- line, size, form, structure, space, pattern, shape.
b) Principles of design- Balance, rhythm, harmony, proportion, emphasis, opposition
c) Design- Definition of design, arrangement
d) Composition – Definition and Importance.
e) Aesthetic- Its importance in relation to interiors.

SECTION-B

Unit-II Study of colours

a) Colour, types of colours, properties of colours, colour schemes
b) Impact of colours in interiors and human beings.
c) Psychological impact of various colours in interiors.

SECTION-C

Unit-III Application of design.

a) Floor decoration
b) Flower arrangement
c) Accessories.

B.Sc. Home Science Composite

SECTION-D

Unit-IV Principles of house planning

a) Site selection, general considerations, orientation of the house.
b) General principles in planning-aspect, prospect, grouping, roominess, flexibility, lighting, ventilation and sanitation.

FOUNDATION OF ART AND DESIGN
PRACTICAL

Teaching Period- 3 hrs/week Marks: 75
Paper: -65
Internal assessment: 10

Instructions to Examiner:
- The practical will be of 10 marks and each practical paper will be of three hours duration.
- Examiner should set 2 questions one from section A and B, second from section C and D.
- All questions carry equal marks.

SECTION- A

1 Preparation of chart showing elements of design

2 Principles of composition- elements and principles
   (a) Introduction to various elements of composition, line, direction, shapes, form, color, value, tones and textures.
   (b) Principles of composition- repetition, unity, harmony, contrast, balance, rhythm, emphasis, dominance, scale, proportion.
   (c) Importance of murals, paintings, and wall hangings in interiors. Simple exercise in making of murals, paintings and wall hangings.

SECTION- B

Practice in composition with reference to above
   ) Simple composition based on principles of composition using geometrical, abstract or realistic shapes.
      a) Preparation of compositions based on principles of design.
      b) Colors- terminology- hue, tints and shades, value, intensity, chroma
         - Theories of color
         - Color schemes
- Color wheel showing primary, secondary, intermediate, tertiary and quaternary colors.

**B.Sc. Home Science Composite**

**SECTION -C**

Preparation of color charts

- Color harmony, color contrast in relation to interior planning.
- Psychological aspects of color, warm, cool, other color scheme
  - Advancing, receding, neutral- their applications in interiors
  - Moods of colors, types, hues, tints, tones, value, shades, intensity.
  - Colors and light.
- Colors, pattern and texture- their relationships with interiors
  - Exercises and compositional qualities related with colors.
- Pattern, tones and textures
  - Shapes and patterns derived from natural forms
  - Patterns and textures in relation of colors
  - Types of textures and their psychological impact
  - Preparation of chart showing different textures
  - Preparation of tonal value scale chart

**SECTION D**

Forms:

1. Study of form; functional, non- functional
2. Influence of function on form.
3. Importance of three dimensional designs.

**References:**

5. A brief history of Indian Painting- Dr. L.C. Sharma, Publishing House Meerut.
B.Sc. Home Science Composite

PAPER -8: LIFE SPAN DEVELOPMENT
(Common to Composite & Human Development and Family Relations)

THEORY

Teaching Period: 3 Hrs/week       Paper: 65
Internal Assessment: 10
Total: 75

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

Objectives:
- To develop awareness of important aspects of development during the life span.
- To understand the issues faced and adjustments required at each stage of development.
- To understand the influence and interaction of sociocultural and environmental factors across life span.

Content:

Unit I
1. Infancy (0-2years):
   - Physical development- patterns of growth
   - Motor development- Reflexes, motor skills
   - Cognitive development- Sensory motor stage of Piaget
   - Language development- Pre speech forms of communication.

Unit II
2. Early Childhood (2-6yrs):
   - Physical growth and motor development- Patterns of growth, motor skills
   - Cognitive development- Pre-operational stage of Piaget
   - Language development- Pattern of language development
   - Emotional development- Common emotional patterns.
• Social development-Play and its importance

**B.Sc. Home Science Composite**

**Unit III**
3. Middle childhood (6-11yrs):
   • Cognitive development- Concrete operational stage of Piaget
   • Social development-Influence of school, social groupings.

**Unit IV**
4. Adolescence (12-19yrs):
   • Physical development-Puberty
   • Social development- Peer relations, Sexual behaviour
   • Cognitive development- Formal operational stage of Piaget.
   • Emotional and behavioral problems among adolescents (Depression, Loneliness, Delinquency, Drug Addiction, Eating Disorders).

**References:**
B.Sc. Home Science Composite

LIFE SPAN DEVELOPMENT
PRACTICAL

Teaching Periods : 2 hrs./week

Paper: 45
Internal Assessment: 05
Total: 50

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

Content:
I. Conduct a survey on a topic related to family relationship of an individual till adolescence.
II. Carry out an extension activity related to social welfare with any one of the following groups: preschoolers, elementary school children, adolescents, parents, teachers and elderly.
III. Administer and Interpret the following psychological tests:
   (a) Any group test of intelligence
   (b) Any performance test of Intelligence
   (c) Family Environment Scale.
IV. Prepare a notice board display on various issues related to young and middle adulthood e.g. significance of period, changes in family, preparation for retirement, menopause, health issues, physical and cognitive changes.
V. Prepare a project report related to late adulthood and old age emphasizing on changes in old age, attitude towards the aged and factors contributing to effective coping with old age.

References:
Chapter – 1

Athletics: - What is difference between track and field events. Brief knowledge of the track and field events.

Middle Distance Running: 800 mtr and 1500 mtr race
   a.) Technique for start, finishing and running in race.
   b.) Fouls at start, finishing and running in race

Chapter- 2

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

Chapter – 3

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

Chapter- 4

Yoga- Any three asans from the following:-
   a.) Dhanurasan
   b.) Chakrasan
   c.) Pashchimottana
   d.) Gurudasana
   e.) Bhujang asan
   f.) Tad asan

REFERENCES:-
4. Rule book of Volley Ball by Volley Ball Federation of India.
7. Yoga and assans by Swami Ramdev

**DANCE (PRACTICAL)**

**KATHAK**

1. **TEEN TAL**
   
   | Amad  | 1 |
   | Tora  | 1 |
   | Chakkardar tora | 1 |
   | Paran | 1 |
   | Chakkar dar paran | 1 |
   | Kavit | 1 |

2. **Chautal**
   
   tatkar in single & dugun layakari’s
   
   | Amad  | 1 |
   | Tora  | 1 |
   | Paran | 1 |
   | Kavit | 1 |

3. **2 Gatnikas in Teental**

4. **Practical demonstration of 10 Asamyukta hasta and 10 samyukta hasta**

**Music (Vocal)**

**(Practical)**

Marks 50

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

2. Sargam geet in Raag Bhimpalasi

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

4. Five alankars are to sing in bilawal and bhairav thhat.
**EVALUATION KEY FOR REVIEW OF THE EXAMINATION PHYSICAL EDUCATION/MUSIC/DANCE**

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<th>Grade</th>
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<td>A+</td>
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<td>A</td>
<td>80 to 89%</td>
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### B.Sc. Home Science– Dietetics – 2nd Year

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<th>Paper/Subject</th>
<th>Credit Hours</th>
<th>Marks</th>
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<td>Applied Life Sciences</td>
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<td></td>
<td>E.) Botany</td>
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<td>F.) Zoology</td>
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<td>*2.</td>
<td>Applied Physical Sciences</td>
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<td></td>
<td>E.) Chemistry</td>
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<td>F.) Physics</td>
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<td>Environmental &amp; Road Safety Education (Qualifying Paper)</td>
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<td>4.</td>
<td>Applied Nutrition</td>
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<td>5.</td>
<td>Nutritional Management in Health and Disease</td>
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<td>6.</td>
<td>Food Microbiology, Hygiene and Sanitation</td>
<td>3 - 3 65 10 75 - - - 75</td>
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<td>7.</td>
<td>Institutional Food Service Management</td>
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<td>8.</td>
<td>Physiology &amp; Promotive Health</td>
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<td>9.</td>
<td>Physical Education, Music &amp; Dance</td>
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* Common to all Stream
B.Sc. Home Science Dietetics

PAPER -1: APPLIED LIFE SCIENCES (Common to all Stream)

PAPER-A: BOTANY (THEORY) & (PRACTICAL)

PAPER-B: ZOOLOGY (THEORY) & (PRACTICAL)

PAPER -2: APPLIED PHYSICAL SCIENCES (Common to all Stream)

PAPER – A: CHEMISTRY (THEORY) & (PRACTICAL)

PAPER-B: PHYSICS (THEORY) & (PRACTICAL)

PAPER -3: ENVIRONMENT EDUCATION & ROAD SAFETY (Common to all Stream)

PAPER – 4: APPLIED NUTRITION (THEORY & PRACTICAL) (Common to Composite & Dietetics)

PAPER – 5: NUTRITIONAL MANAGEMENT IN HEALTH AND DISEASE (THEORY)

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

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

Objectives
This course will enable the student to

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

Unit- I

1. **Definition of health and nutrition.**

Dimensions of Health (physical, psychological, emotional)

2. **Nutrition through the life Cycle.**

(different activity and Socio-economic levels)
Requirement, nutritional problems, food selection.

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

Unit – II

3. **Energy Requirements – Factors affecting energy requirements**

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

4. **Concept of nutritionally adequate diet and meal planning.**

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

Unit- III

5. **Principles of diet therapy**

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

6. **Nutritive Modifications of Diets**
7. Nutritional management in Gastrointestinal Disorders
   a. Diarrhoea
   b. Constipation

8. Nutritional Management in Energy Imbalance
   a. Obesity
   b. Underweight

9. Nutritional Management in Fevers
   a. Long - term fever
   b. Short – term fever

NUTRITIONAL MANAGEMENT IN HEALTH AND DISEASE
(PRACTICAL)

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

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

Objectives
This course will enable the students to-

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

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

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

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

Reference:


PAPER-6 : FOOD MICROBIOLOGY, HYGIENE AND SANITATION (THEORY)

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

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

Objectives:
This course will enable the students to:-
1. Understand the nature of microorganisms involved in food-spoilage, food-infections and intoxications.
2. Understand the principles of various methods used in the prevention and control of microorganisms in foods.
3. Understand the criteria for microbiological safety in various food operations to avoid public health hazards due to contaminated foods.

**Unit-I**

1. Discovery & history of microbiology, sub-disciplines of microbiology.
2. The prokaryotic cell structure: introduction to important micro-organisms in foods.

**Unit-II**

3. Cultivation of microorganisms- Nutritional requirements of microorganisms, types of media used, methods of isolation.
4. Primary sources of microorganisms in foods: Physical and chemical methods used in the destruction of microorganisms (Sterilization and Disinfection).

**Unit-III**

6. Food Spoilage: Contamination and microorganisms in the spoilage of different kinds of foods and their prevention: Cereal and cereal products, vegetables and fruits, fish and other sea foods, meat and meat products, eggs and poultry, milk and milk products, Canned foods.

**Unit-IV**

8. Microbes used in food biotechnology. Fermented foods and their benefits, probiotics.

**References:**


PAPER-7 : INSTITUTIONAL FOOD SERVICE MANAGEMENT (THEORY)

Teaching Pds: 3 / weeks  Maximum Marks: 75
Paper Marks: 65
Int. Assessment: 10

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

Objectives

This course will enable the student to-

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

Unit- I

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

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

Unit- II
3. Organisation- definition and types.

4. Management-definition, function and tools of management.

**Unit - III**


6. Cost and Management Accounting: Definition and Scope, costs and their control, management accounting, profit planning.

**Unit - IV**

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


**References:**


**INSTITUTIONAL FOOD SERVICE MANAGEMENT (PRACTICAL)**

Maximum Marks: 50 (Internal Only)
Teaching Periods: 2 hrs/week

- Use and care of kitchen equipment, table setting and service.
- Portion cooking- Weights & Measures- their equivalence.
- Standardization of recipes for quantity cookery.
- Cooking & service of quantity meals/ recipes to small groups.
Note:
1. Each theory paper will be of 3 hours duration.
2. Question paper should cover all the topics of syllabus.
3. There will be four units in all.
4. Each unit will have 2 questions. Question no. 9 will be compulsory and cover entire syllabus.
5. The students are to attempt four questions from each unit and question no. 09 will be compulsory.
6. The students are required to attempt five questions in all.

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

Unit-I

PROMOTIVE HEALTH
1. Introduction to Health
   - Definition and Concept of Health
   - Personal Hygiene
   - Hygiene in Kitchen and Home- Control and eradication of flies, Cockroaches, rodents and other pests. Use of Disinfectants in case of working surfaces, kitchen equipments, dish washing, hand washing.
2. Air
   - Air and its impurities

Unit-II

3. Diseases
   - Communicable diseases- brief study of diseases giving the cause, mode of spread, incubation period, symptoms and control.
   - Diseases caused by ingestion- Typhoid and Poliomyelitis.
   - Diseases caused by indigestion- Cholera.
   - Diseases caused by inhalation- Mumps.
     - Measles
     - Pulmonary TB
     - Chickenpox
   - Diseases caused by Vectors
     - Malaria
   - Sexually Transmitted Disease
- AIDS
  - Food Hygiene- Precautions to be taken during preparation, serving and display of food. Good food handling habits.
4. Water supply- sources of contamination, purification of water for home and community. Physical, Chemical and Bacteriological examination of water.

**Unit-III**

**PHYSIOLOGY**

5. Cardiovascular System
   - Blood: Composition and Function
   - Blood groups and related diseases like hemophilia and thalessemia.
   - Heart: Function and functioning of heart.
6. Digestive System
   - Structure and function of stomach, Liver, Pancreas, gall bladder, small intestine and large intestine.
7. Reproductive System
   - Brief outline of sex organs and glands (Uterus, fallopian tube, ovaries and mammary gland, testes, penis and prostate gland).
   - Menstrual cycle
   - Ovarian Cycle
   - Contraception- importance of contraception
   - Methods of contraception

**Unit-IV**

8. Endocrine glands
   - Function of pituitary, thyroid, parathyroid, pancreas and adrenal glands.
9. Urinary System
   - Structure and Functions of Kidney
10. Respiratory System
   - Structure and Functions of Lungs.
11. Immunology
   - Vaccines (for common diseases including immunization schedule).

**References:**


**PAPER-9: PHYSICAL EDUCATION, MUSIC & DANCE**
### B.Sc. Home Science- Human Development and Family Relations- 2nd year

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* Grand Total: 950

* Common to all Stream
B.Sc. Home Science - Human Development and Family Relations

PAPER -1: APPLIED LIFE SCIENCES (Common to all Stream)

PAPER-A :BOTANY (THEORY) & (PRACTICAL)

PAPER-B: ZOOLOGY (THEORY) ( PRACTICAL)

PAPER -2: APPLIED PHYSICAL SCIENCES (Common to all Stream)

PAPER – A: CHEMISTRY (THEORY) & (PRACTICAL)

PAPER-B: PHYSICS (THEORY) & (PRACTICAL)

PAPER -3: ENVIRONMENT EDUCATION & ROAD SAFETY
(Common to all Stream)

PAPER – 4: LIFE SPAN DEVELOPMENT
(Common to Composite & Human Development & Family Relations)

PAPER – 5: FAMILY AND SOCIAL WELFARE THEORY

Teaching Periods : 3hrs./week

Paper: 65
Internal Assessment: 10
Total: 75

Instructions for Paper Setters and candidates

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

Objectives:
• To gain knowledge about family system in India
• To understand the changing roles and relationships within the family
• To know about the agencies working for the welfare family and society.

B.Sc. Home Science - Human Development and Family Relations

Content

Unit-I

1. Family
   - Definition, functions and types of family
   - Family life cycle- stages and sub stages (beginning, expanding, contracting)

2. Marriage
   - Marriage as an institution: goals, functions and changes.
   - Mate selection: Influencing factors and changing trends.
   - Marriage trends and characteristics across cultures.

Unit-II

3. Types of Social Welfare Programmes
   - Family welfare
   - Child welfare
   - Youth Welfare
   - Women Welfare
   - Welfare of weaker sections

Unit-III

4. Methods of social work
   - Case work
   - Group work
   - Community organization

5. (a) Central Social Welfare Board
   - Organizational set up
   - Programmes and Activities

   (b) State Social Welfare Boards

Unit-IV


7. Any three voluntary organizations working for social welfare.

References:

**B.Sc. Home Science - Human Development and Family Relations**


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**FAMILY AND SOCIAL WELFARE**  
**PRACTICAL**

Teaching Period: 2 hrs./week  
Paper: 45  
Internal Assessment: 05  
Total: 50

**Instructions for Paper Setter:**

1. Each practical paper will be of 3 hours duration.

2. The question paper should cover the entire syllabus.

3. The file work and viva voice will be of 5 marks each (Total = 10 marks)

**Content:**

1. Understanding the case study format for families.

2. Case study on any one of the following types of families:
   - Single parent family
   - Migrant families
   - Family with adopted children
   - Dual earner family
   - Families affected by natural calamities
   - Families affected by war
   - Families in extreme poverty condition
   - Families with marital discord
• Inter caste/ religion families

B.Sc. Home Science - Human Development and Family Relations

3. Preparing resource material for generating awareness among masses on various family and social welfare issues through leaflets, folders, pamphlets, posters, charts and video clippings.

4. Planning and implementing awareness programmes through role play, workshops, lectures and focused group discussion on issues like:

• Gender discrimination
• Female foeticide
• Dowry
• Intercaste marriage
• Child and elderly abuse
• Women Empowerment
• Care of elderly and disabled etc.

5. Conducting a survey in the community on the problems of women and elderly as well as awareness about availability of services for them.

References:

B.Sc. Home Science - Human Development and Family Relations

PAPER -6: POPULATION WITH IMPAIRMENTS
THEORY

Credit Hours: 3 Paper: 65
Internal Assessment: 10
Total: 75

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

Objectives:
• To sensitize the students about impairments prevalent in population.
• To enhance their knowledge about remedial and rehabilitation services available for this section of population.

Unit-I
1. Introduction
   • Introduction to people with special needs, i.e. those with disabilities, disadvantage and the aged. Scope of work for human development professionals.
   • People with disability conditions:
   • Definitions, types of disabilities, incidence, rights and legislation, focus on families of disabled.

Unit-II
2. Integration and inclusion with special needs in families, schools and society.
   • Provision of services
   • Role of NGOs
   • Advocacy
   • Support to individuals and families.

Unit-III
3. Mental Retardation
   • Definition and classification
   • Causes
   • Education and counselling.
4. Physical disabilities
   - Definition and classification
   - Causes
   - Education and counselling.

Unit-IV

5. Sensory Impairments: Visual and Hearing
   - Definition and classification
   - Causes
   - Education and counselling.

6. Communication disorders
   - Definition and classification
   - Causes
   - Education and counselling.

References:


POPULATION WITH IMPAIRMENTS PRACTICAL

Credit Hours: 2 Paper: 45
Internal Assessment: 05 Total: 50

Instructions for Paper Setter:

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

Content:

1. Case study of an individual with any one type of disability/ impairment.
2. Organizing some activity involving integration of population with special needs.
3. Visit to various institutions meant for special population.

**B.Sc. Home Science - Human Development and Family Relations**

4. Report writing of the activities organized by government and non-government organizations in the city related to special population.

5. Planning activities/ programmes which can be undertaken by college students for the empowerment of population with specific impairments.

6. Preparing resource material for education of population with visual, auditory and communication impairments.

**References:**


**PAPER-7: FAMILY DYNAMICS**

*(Common to Composite & Human Development and Family Relations)*
B.Sc. Home Science - Human Development and Family Relations

PAPER -8 :  PSYCHOLOGY

THEORY

Credit Hours: 3        Paper: 65
Internal Assessment: 10
Total: 75

Instructions for Paper Setter:

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

Unit I
1. Introduction
   a) Definition, nature & scope of Psychology
   b) Methods used in Psychology: Experimental, Survey, Case study and Interview
   c) Relationships of Psychology with other sciences

2. Attention
   a) Definition and nature of attention
   b) Characteristics of attention
   c) Factors affecting attention

3. Sensation and Perception
   a) Meaning and characteristics of sensation and perception
   b) Factors influencing perception
   c) Extra sensory perception

Unit II
4. Memory and Forgetting
   a) Nature and types
   b) Methods of improving memory
   c) Forgetting and its causes
   d) Theories of Forgetting
5. **Learning**
   a) Meaning and nature of learning
   b) Process of learning
   c) Types of learning

   B.Sc. Home Science - Human Development and Family Relations

   **Unit III**

6. **Emotions**
   a) Meaning and characteristics of emotions
   b) Concept of Emotional Quotient
   c) Behavioral expressions of common emotions
   d) Controlling emotions

7. **Intelligence**
   a) Meaning and concept of Intelligence
   b) Theories of Intelligence (Spearman, Thurstone and Guilford)
   c) Intelligence: nature versus nurture

8. **Personality**
   a) Meaning and nature of personality
   b) Factors in the development of personality
   c) Assessment of personality
   d) Brief overview of type and trait theories.

   **Unit IV**

9. **Motivation**
   a) Meaning and nature of motivation
   b) Types of motivation
   c) Maslow’s Need Hierarchy: Theory of self actualization

10. **Stress and its Management**
    a) Concept of stress
    b) Causes of stress
    c) Coping strategies

**References:**
• Mohanti, G.B. (1984). A text Book of General Psychology, New Delhi, Kalayani Publisher

B.Sc. Home Science - Human Development and Family Relations
• Munn, N.L. (1967). An Introduction to Psychology, Delhi, Oxford
• Stoddard, G.D. (1943). The meaning of Intelligence, New York, MacMillan

PSYCHOLOGY

PRACTICAL

Credit Hours: 2
Paper: 45
Internal Assessment: 5
Total: 50

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

Content:

1) To study the effect of mental set on perception using a set of cards.
2) To assess the personality of an individual using Eysenck Personality Questionnaire.
3) To study the level of adjustment using any adjustment inventory.
4) To study the level of attention of an individual with the help of Tachistoscope.
5) To assess the Intelligence level of an individual using Jalota’s test of intelligence.
6) Audio visual aids related to any issue in Psychology. For example: stress management, personality development

References:
• Mohanti, G.B. (1984). A text Book of General Psychology, New Delhi, Kalayani Publisher

B.Sc. Home Science - Human Development and Family Relations

• Munn, N.L. (1967). An Introduction to Psychology, Delhi, Oxford
• Stoddard, G.D. (1943). The meaning of Intelligence, New York, MacMillan

PAPER 9: PHYSICAL EDUCATION, MUSIC & DANCE
(Common to all Stream)

***********
## B.Sc. (Home Science) Apparel & Textile Design - 2\textsuperscript{nd} Year

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* Common to all Stream
B.Sc. (Home Science) Apparel & Textile Design

PAPER -1: APPLIED LIFE SCIENCES (Common to all Stream)

PAPER-A :BOTANY (THEORY) & (PRACTICAL)

PAPER-B: ZOOLOGY (THEORY) (PRACTICAL)

PAPER -2: APPLIED PHYSICAL SCIENCES (Common to all Stream)

PAPER – A: CHEMISTRY (THEORY) & (PRACTICAL)

PAPER-B: PHYSICS (THEORY) & (PRACTICAL)

PAPER -3: ENVIRONMENT EDUCATION & ROAD SAFETY (Common to all Stream)

PAPER -4 : TEXTILE SCIENCE (THEORY)
(Common to Composite & Apparel & Textile Design)

PAPER -5 : TEXTILE DESIGN (THEORY)

Teaching Periods : 3 Hrs/Wk. M. Marks: 75
Int. Ass: 10
Paper: 65

Objectives:

To impart knowledge about the –
1. Principles and elements of art.
2. Different dyes and printing techniques.

Instructions for the paper setter:

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

**B.Sc. (Home Science) Apparel & Textile Design**

**UNIT-I**

* Definition of Motif and design: Types of Motifs.
* Elements of Art in relation to Textile Designing
  ➢ Line form.
  ➢ Colour & its dimensions (Hues, Values, Intensity)
  ➢ Colour schemes
  ➢ Texture.

**UNIT-II**

* Principles of design in relation to textile designing
  ➢ Harmony
  ➢ Proportion
  ➢ Balance
  ➢ Rhythm
  ➢ Emphasis

* Optical Illusions created through elements of Arts and principles of Design.

**UNIT-III**

* Dyes-Classification, Dyeing Methods, Dyeing stages, Dyeing auxiliaries.
* Printing- Methods of Printing.

**UNIT-IV**

* Thickening agents.
* Pre and post treatment (preparation and finishing of fabric) of dyed and printed goods.
* Defects of dyed and printing goods.

**References:**

1. Individuality in Clothing selection- Mary Kefgan.
B.Sc. (Home Science) Apparel & Textile Design

TEXTILE DESIGN (PRACTICAL)

Teaching Periods: 2 Hrs/Wk.  
M. Marks: 50  
Int. Ass: 05  
Paper: 45

Instructions for paper setters:-
1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and the Sessional work will be of 05 marks each (10 marks)

a. Tools and equipments
   • Pens
   • Pencils
   • Brushes
   • Inks

b. Introduction to Elements of Design.
   • Lines and forms- geometrical, naturalized, stylized, traditional and abstract motifs.
   • Colour- Colour wheel, value scale, intensity scale, colour harmonies and colour ways.

c. Design Development:
   • Development of design using principles of design.
   • Different placement of design all over, central, corner, border

d. Design portfolio
   Thematic designing for:-
   • Children
   • Men
   • Women
   • Household articles.

e. Dyeing and Printing techniques
   • Tie and Dye
   • Batik
   • Stencil
   • Screen
   • Block

References:
1. Illustrating fashion by Kathryn Mckelvey & Janine Munslow-
6. New Fashion Illustrations by Ritu.
8. The crafts of weavers; the costumes and textiles of India-Brij Bhushan, Jamila D B Taraporevalla Sons & Comp. Pvt. Ltd. Bombay.

B.Sc. (Home Science) Apparel & Textile Design

PAPER -6 : CHILDREN'S CLOTHING (THEORY)

Teaching Periods : 2 Hrs/Wk. M. Marks: 50
Int. Ass: 05
Paper: 45

Instructions for the paper setter:

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

Objectives:

To impart knowledge about the –
1. equipments used in garment construction
2. correct body measurements
3. clothing requirements of infants & children

UNIT-I

1. Equipments and supplies used in clothing construction and their use and care with special reference to serving machine and its accessories.
   * Tools used:-
   Measuring tools
   Marking tools
   Cutting tools
   Sewing tools
   Finishing tools
   * Common sewing defects and their remedies.

UNIT-II

2. Methods of taking body measurements.
-Preparation of fabric for clothing construction.
-Layouts and estimation of fabric for different garments.

B.Sc. (Home Science) Apparel & Textile Design

3. Terminology
   -Grain, bias, selvedge, seams, tucks, pleats, gathers, smocking, shirring, checks, plaids, trimmings.
   -Frills, flounces and bows.

   UNIT-III

4. Requirements for Children Clothes.
   - Comfort
   - Safety
   - Self help
   - Room for growth
   - Appearance
   - Easy care
   - Fabrics
   - Colours
   - Economy

   UNIT-IV

5. Clothing for children (different age groups) with special reference to fabrics, colours and details
   - Infants
   - Babies & Toddlers
   - Pre-school children
   - Elementary school children

References:
2. Reader’s Digest: Complete Book of Sewing.
B.Sc. (Home Science) Apparel & Textile Design

CHILDREN’S CLOTHING (PRACTICAL)

Teaching Periods : 3 Hrs/ Wk.     M. Marks: 75
Int. Ass:    10
Paper:       65

Instructions for paper setters:-

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and the Sessional work will be of 05 marks each (10 marks)

Content:

1. Sewing machine- Parts, care and use.
2. Drafting of Child’s panty, bloomer and jhabla
3. Drafting of Child’s bodice block and sleeve block
4. Adaptation of basic sleeve to
   a) Puff sleeve and its variations
   b) Cap sleeve and its variations
   c) Petal sleeve
   d) Bell sleeve
   e) Magyar and Kimono
5. Drafting / Adaptation of collars
   a) Baby collar
   b) Peterpan collar and its variation
   c) Cape collar
   d) Sailor’s collar
   e) Bushirt collar
6. Construction of samples
   a) Basting- even, uneven, diagonal
   b) Hemming-visible, invisible
   c) Seams- Plain seams, Plain seams with top stitching, French seam, run and fell, counter seam.
   d) Seam finishes- blanket stitch, over lock, pinking, overcasttting
   e) Finishing of neck lines- facing & bindings
   f) Yokes
   g) Plackets (One piece and two piece), Patch pocket, fasteners
7. Construction of following garments
   a) Baby layette- Bib, diaper, jhabla
   b) Panty and bloomer
c) Frocks- A line, yoke frock  
d) Romper

References:

B.Sc. (Home Science) Apparel & Textile Design

PAPER -7 : FASHION MERCHANDISING ( THEORY )

Teaching Periods : 2 Hrs/Wk.       M. Marks: 50
Int. Ass:    05
Paper:      45

Instructions for the paper setter:

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

Objectives:

To create awareness about-
1. Fashion concepts
2. Fashion creation and manufacture
3. Merchandizing of fashion
4. Fashion stores

UNIT-I

a) Fashion terminology- Fashion, fad, style, classic, taste, design, hi-fashion, mass.
b) Components of fashion-line, colour, texture and form
c) Fashion cycle and broken fashion cycle
d) Theories of fashion adoption factors affecting fashion movement

UNIT-II

2. Fashion creation and manufacture.
a) Fashion forecast
b) Sources of inspiration
c) Fashion supplies
d) Organization of an apparel firm
UNIT-III

3. Merchandising of Fashion
   a) Definition of fashion merchandising and visual merchandising
   b) Promotion of fashion
      (i) Advertising (ii) Publicity and fashion shows.

B.Sc. (Home Science) Apparel & Textile Design

UNIT-IV

4. Fashion distribution
   b) Department stores.
   c) Specialty stores.
   d) Chain stores
   e) Mill showrooms
   f) Factory outlets.
   g) Catalogue retail stores
   h) Discount stores
   i) Designer`s retail stores
   j) Franchise retail store
   k) Boutiques

References:

1. Fashion Merchandising- An Introduction by Elaine Stone
4. Fashion merchandising by Troxel and Judele
B.Sc. (Home Science) Apparel & Textile Design

PAPER -8  APPAREL DESIGN ( THEORY)

Teaching Periods : 3 Hrs/Wk.      M. Marks: 75
Int. Ass:  10
Paper:       65

Instructions for the paper setter:

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

Objectives:

To impart knowledge about the-
1. Apparel terminology.
2. Elements & principles of design
3. Terminology and methods of pattern making.
4. Pattern making and designing by computers.

UNIT-I

1. Apparel Terminology.
   a) Foundations- Bustier, bra, corset, bikini
   b) Coats- A line, overcoat, Cardigan, Tent coat.
   c) Jackets: Nehru, Blouson, Bolero, Blazer, Spencer
   d) Jumpers-Shift, tunic, Jumpsuit, Pinafore.
   e) Skirts:-
      • Length: Micromini, Mini, Knee length, Midi (Mid calf), Ballerina, Ankle length.
      • Silhouette: Straight, A-line, Pegged, Flared.
      • Other types: Godets, Pleated, Gathered, Tiered, Divided, Wrap
   f) Pants-Capri, Cargo, Baggy, Bloomers, Harem, Pedal pushers
   g) Slips-Chemise, Tunic, Camisole
h) Waistlines and style lines- Princess line, Empire, Low waist, High Waist, Clinched, Natural waist.

i) CAD & CAM

UNIT-II

2. Origin of Clothing
3. Elements and Principles of Design
4. Types of Design (i) Structural (ii) Decorative.

B.Sc. (Home Science) Apparel & Textile Design

5. Factors affecting apparel designing age, sex, physical characteristics, geographical and environmental.

UNIT-III

6. Apparel design through pattern making-flat pattern and draping.
7. Terminology used in pattern making- Pattern drafting, flat pattern making, template, working pattern, production pattern, design specification sheet, pattern chart, cost sheet, trueing and blending, style number and pattern size.

UNIT-IV

9. Important national and international fashion centers.

References:

2. Dress- By Gawne.
5. Fashion Merchandising- By Stone.
6. Fashion Merchandising- By Troxell and Judelle.

APPAREL DESIGN (PRACTICAL)

Teaching Period : 2 Hrs/ Wk. M. Marks: 50
Instruction for paper setters:-

1. Each practical paper will be of 3 hours duration.
2. The question paper should cover the entire syllabus.
3. The file work and the Sessional work will be of 05 marks each (10marks).

B.Sc. (Home Science) Apparel & Textile Design

Objectives:

1. To enable students to illustrate features of apparel designing.
2. To gain knowledge of figure sketching drawing human figures, illustration techniques of various colour schemes.

Content:

1. Depicting various fashion details: necklines, collars, sleeves, silhouettes, trousers, skirts, frills, bows, pockets.
2. Depicting folds, pleats, tucks, gathers, frills and laces.
3. Drawing and fleshing of croque.
4. Different movements and poses of fashion figure.
5. Thematic Apparel designing for:
   a. Children wear
   b. Ladies wear
   c. Men’s wear
   d. Sports wear

6. Designing of jewellery and accessories.

References:

1. Patrick John Ireland- Fashion Design drawing & Presentation, N.D. Om, 2005

PAPER -9: PHYSICAL EDUCATION, MUSIC & DANCE (Common to all Stream)

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<td>C.) Botany</td>
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PAPER -1: APPLIED LIFE SCIENCES (Common to all Stream)

PAPER-A : BOTANY (THEORY) & (PRACTICAL)

PAPER-B: ZOOLOGY (THEORY) & (PRACTICAL)

PAPER -2: APPLIED PHYSICAL SCIENCES (Common to all Stream)

PAPER – A: CHEMISTRY (THEORY) & (PRACTICAL)

PAPER-B: PHYSICS (THEORY) & (PRACTICAL)

PAPER -3: ENVIRONMENT EDUCATION & ROAD SAFETY (Common to all Stream)

PAPER -4: INTERIOR AND RESIDENTIAL SPACE DESIGN

THEORY

Teaching Period : 3 hrs/week

MM : 80
Paper: 70
Int. Ass. : 10

OBJECTIVES

1. Gain knowledge of principles of planning of various types or residential spaces.

2. Gain understanding of present housing scenario and financial institutions.

3. Developing skills in drawing house plans

Instruction to examiner

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

Content

SECTION-A

Unit-I  Introduction to Interior Designing
Factors influencing interior design

Unit-II

•  Interior space Renovations
•  Importance of Interior Designer

SECTION-B

Unit-III  Family’s Housing Needs

•  Protective, economic, affectional, social standard of living housing goals, style, function, occupation.

Unit-IV  Factors influencing selection and purchase of site for house building.

•  Legal aspects, location, physical features, soil conditions, cost, services.

SECTION-C

Unit-V  House Planning

•  Reading house plans
•  Grouping of rooms, orientation, circulation, flexibility, privacy, spaciousness, services, aesthetics, economy light and ventilation.
•  Planning different rooms: Living room, dining room, bedrooms, kitchen, store room, toilet, passage, staircase.
•  Landscape planning – principles and application.

SECTION-D

Unit-VI  Housing Finance

•  Housing Development Finance Corporation
•  Cooperative Housing Society
•  Life Insurance Corporation
•  Cooperative Banks
•  Loan from Provident Fund
•  Disability of owing versus renting

Unit – VII  State and Central Housing Scheme

•  Housing problems, causes and remedial measures.

INTERIOR AND RESIDENTIAL SPACE DESIGN

PRACTICAL

Teaching Period : 2 hrs/week  
M.M. :  50  
Paper :  45  
Int. Ass. :  05

Unit – I

Drawing House plans with standard specifications

Unit- II

Furniture layout of various rooms, lining, dinning, drawing and bedroom design presentation with furniture layout section, drawing and bedroom design presentation with furniture layout sectional elevation, views.

Unit - III

1. Design of a kitchen; prepare a plan elevation in pencil and rendering above plans and elevations in colour.

2. Storage and cupboard design.

Unit - IV

1. Crafts out of fiber, fabric, coir, bamboo, clay, metal etc.

2. Creating an object out of waste.
PAPER -5: HISTORY OF ART

THEORY

Teaching Period : 2 hrs/week

M. Marks: 65
Paper: 55
Int. Ass.: 10

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

OBJECTIVES

This course aims at creating appreciation among the students about history and development of art and its impact on interior design.

Section – A

Unit-I: Brief introduction to the ideals of Indian Art- A General Survey.

Section-B

Unit- II: History of paintings (in brief) of different schools, from renaissance onwards in India and abroad (Italy, France and England) with emphasis of Indian Art from and handicrafts.

Section – C

Unit- III: Traditional Indian Folk and tribal arts and handicrafts, knowledge of various styles prevalent in different states

Section – D

Unit – IV: 1. Study of inlay and meenakari in relation to interior. 2. Traditional designs and motifs used on surface and objects including pottery stone, metal ware., wood crafts etc.
Note:
1. During teaching –learning process, students may be shown various types of design and motifs.
2. Students should be taken to museums, art galleries, emporia, handicrafts centers to create awareness regarding art.
3. The students should also be taken to fields to show the manufacturing process of various items of art and handicrafts.
4. The students are required to prepare reports based on above visits.

PAPER -6:  FOUNDATION OF ART AND DESIGN  
(Common to Composite & Interior Management)

PAPER -7:  GRAPHIC PRESENTATIONS  
(PRACTICAL)

Teaching Period : 4 hrs/week

M.M. : 100
Paper: 90
Int. Ass.:10

PRACTICAL

Instruction to Examiners

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

Objective:
This subject is aimed at developing skills in drafting and rendering which will be utilized for interpreting / reading drawings pertaining to interior design.

Unit- I

Knowledge of instruments, papers, use of graphics in interior design presentation.
Skills in free hand presentation; pencil, crayon, inkpen, brush, sketch pen, cut paper marker, mediums (20 Sheets)
Unit – II    Free hand line on paper

a) Horizontal and vertical lines
b) Free hand circles, curves, parallel curves etc.
c) Free hand single stroke lettering in pencil.
d) Free hand single stroke lettering in pen and brush (Knowledge of various radiographic points)
e) Sketching of various geometrical shapes simple objects of interiors – furniture and accessories.
f) Free hand symbolic presentation of human figures, trees, vehicles etc. (Three Sheets)

Unit- III    Skills in scaled drawing (pen, pencil)

Unit- IV    Knowledge of use of engineering scales- metric, foot and inches;

1. Reduction and enlargement.
2. Physical measurement – exercises of different interior objects.
3. Simple drafting of measured objects.
5. Exercises on three dimensional (solid) geometry showing simple plan and elevation.
6. Simple exercises on solid geometry showing section by horizontal and vertical plain.

EXERCISE 1.

- Measured lettering (ratio between height and width of letters – Roman lettering, Gothic and Italics, presentation techniques and standards adopted – pen, pencil & brush.
- Techniques in skilled drafting and perspective.
- Knowledge of standardize drawings, importance, various architectural symbols and usage in drawings.

EXERCISE 2.

- Terminology of perspective drafting and drawing, viz planes, vanishing, points, cone of vision, one point & two point.
- Simple exercises on one point & two point perspective of three dimensional geometrical shapes.

EXERCISE 3.

- Sciography – in plan, elevation and sciography use in orthographic projections of cubes and spheres.
EXERCISE 4.

- Drafting of simple furniture objects with projections, showing isometric view, front elevation side, plan etc.

PAPER -8: BUILDING MATERIAL AND CONSTRUCTION TECHNIQUES

THEORY

Teaching Period: 3 hrs/week

M. Marks: 80
Paper: 70
Int. Ass. 10

Instruction to the Examiners:

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

Objectives:

1. An in interior designer is supposed to make use of various types of materials for conceptualizing, designing and executions of interior design projects.

SECTION – A

Unit – I a.) Foundation:
1. Introduction, types of foundation.

b.) Floor
1. Decorative Tiles: Various types, their properties and use in interior design.
2. Cement and Concrete: Properties of normal setting cement used in interior plastering, ingredients of concrete, properties, various finishes.

SECTION – B

Unit – II Materials and Applications
2. **Metals**: Steel used for furniture making, reinforcement, sizes of M.S. pipes and its availability, steel pipes, various sizes, methods of use, Aluminum used in interior doors and windows(sizes & methods of using), properties and usage of brass and copper in interiors.

3. Water Proofing Materials: Types, availability and other applications.

4. Use of Plastic and PVC in interior and construction technology.

**SECTION – C**

**Unit- III**

1. Glass properties, sizes, prices and availability of sheet plates, waxed, terminated colored, insulating, heat resistance and glass blocks.
2. Painting, polishing, varnishes, paints, polishes, distempers and varnishes on interior walls, furniture-applications, uses of plastic in building.

**SECTION – D**

**Unit-IV**: Safety materials and fire resistant materials: needs, types & uses.

**Note:-**

1. Students are required to visit organizations/establishment dealing with manufacture and sale of building materials.
2. Students are required to collect samples of various types of materials and department should establish a museum of materials which can be as live demonstration of building materials while teaching this course.

**BUILDING MATERIALS AND CONSTRUCTION TECHNIQUES**

**PRACTICAL**

Teaching Period : 2 hrs/week M. Marks- 50

Paper-45 Internal assessment-05

**Instructions to Examiner**

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

Objectives:
1. An interior designer is supposed to make use of various types of materials for conceptualizing, designing and executions of interior design projects.
2. Question Paper will have four sections. Examiner will set a total of minimum questions comprising two questions from each unit and one compulsory question of short answer type covering the whole syllabus. Students will attempt form each unit and the compulsory question. All questions may carry equal marks, unless specified.

Unit – I  
**Foundation – Introduction, Types of Foundation**
Types of foundation: - Brick foundation plan. Section CC foundation plan, Section, stepped foundation – plan and section

Unit - II  
**Opening:**
a) Articles, Lintels; types and terms
   Types of arches and lintels, simple, glazed Panelled, Fly-poof, Hush door glazed and paneled
b) Types of doors and terms
c) Window, Bay window, window, ventilators, grill design.

Unit – III  
**Floors**
a.) RCC Floors, brick stone, terrazzo, wood, PVC floor finishes- plan and section patterns of floor tiles.
b.) False Ceiling: Purpose, types material Fixing of wooden ceiling used POP Ceiling, Luxlon ceiling- plan and section

Unit – IV  
**Water Proofing:** Application, water proofing products available in the market and their uses.

**PAPER -9:  PHYSICAL EDUCATION, MUSIC & DANCE (Common to all Stream)**

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