UG Programme
Choice Based Credit Semester System
(MGU-CBCSS-UG)
Revised Scheme & Syllabi
For
BSc. FAMILY AND COMMUNITY SCIENCE
(HOME SCIENCE)
(From 2012 admission onwards)
## CONTENTS

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PREFACE

B.Sc. FAMILY AND COMMUNITY SCIENCE PROGRAMME

Family and Community Science (Home Science) offers a broad-based course that gives students exposure to “real life lessons” and skills to give them confidence to face the world as informed citizens. Today’s world demands flexibility and response to change for which many are not prepared. Home Science course is designed to train the learner to meet these changes with confidence. It promotes individual character development, increases one’s professional skills, develops insights into home and family living, and prepares its students to enter a wide range of career options. As a profession, Home Science applies the findings of the physical, biological, and social sciences in improving the quality and standards of individual and family life.

Family and Community Science (Home Science) comprises five branches and are as follows:

1. Foods, Nutrition and Dietetics
2. Child Development/Human Development and Family Studies
3. Home Management/Family Resource Management
4. Clothing and textiles
5. Home Science Extension Education
The subject of family and Community Science offers a wide range of subjects at the UG level and hence it forms the basis for a variety of courses after graduation. During the course of the UG programme, the students would get ample time and opportunities to decide on their course of study for post graduation.

Options of higher education

Masters Degree in

- Food Science & Nutrition
- Human Development/Child Development
- Family Resource Management
- Food Service Management & Dietetics
- Food Technology
- Textiles & Clothing
- Hospital Administration (MHA)
- Business Administration (MBA)
- Human Resource Management (MHRM)
- Social work (MSW)
- Women’s Studies
- Guidance & Counselling
- Extension Education
- Journalism & Mass Communication

PG Diploma in

- Clinical Nutrition & Dietetics
- Interior / Landscape Designing
- Fashion Designing
- Clinical Child Development
- Early Childhood Care & Education
- Computer Aided Textile Designing
- Consumer Guidance & Protection

The scope of Family and Community Science (Home Science) is not limited to the activities within the home but has a wider perspective that forms the basis of challenging professions in various fields. The following is a list of career a person can opt for after Post Graduation.
Career Options

Technical Research & Development

- Scientists
- Food Quality Controllers
- Research Coordinators/Project Officers/Assistants of health & Nutritional Programmes, Welfare Programmes of government/NGOs, agencies of National & International repute-ICMR, ICAR, NIPCCD, CFTRI, UNICEF, WHO.

Production

Managers/Supervisors in garment/Food Industries, Production units of hotels

Education & Administration

- Teaching faculty in Colleges/Schools
- Administrators
- Special Educators
- Remedial Teachers in Rehabilitation Centres
- Teacher Trainers
- Extension Officers.

Product Design & Development

- Fashion Designers
- Interior/Landscape Designers
- Textile Designers.
- Product Developers.

Marketing and Sales

- Apparel Merchandisers
- Sales Promotion Personnel of Food Products, Medical Supplements, Educational Materials, Home appliances.

Guidance and Counselling

Service Jobs

- Dietitians in Hospitals
- Diet Consultants in Hotels, Industrial Canteens, Fitness Centers and geriatric Clinics, Health Resorts
- House keeping Personnel
- Consumer Awareness Campaigners
- Front Office Managers.

Entrepreneurship Ventures

- Food Business
- Garment Manufacturing
- Early Childhood Care and Education
- Consultancy Services.

Duration
Three years (Six Semesters) full time graduate course.

Eligibility
Candidates shall be required to have passed the plus two or equivalent examination or an examination recognized by the University as equivalent thereto.
The UG programme in FAMILY AND COMMUNITY SCIENCE (Home Science) includes:
(a) Common Courses, (b) Core Courses, (c) Complementary Courses, (d) Open Courses and (e) Project. No course shall carry more than 4 credits. The student shall select any Choice Based Course offered by the Department which offers the core courses, depending on the availability of teachers and infrastructure facilities, in the institution. Open course will be offered in any subject and the student shall have the option to do courses offered by other Departments in the fifth semester.

PROGRAMME STRUCTURE AND CREDIT

TOTAL CREDITS-120

Semester I

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**Choice Based Courses-1.Introduction to Industrial Apparel Manufacturing Techniques. 2. Food Quality Assurance 3 .Early Childhood Care and Intervention. 4. Surface Ornamentation Techniques. 5. Women Studies.

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**Course coding**

Every course in the programme is coded according to the following criteria.

1. The first letter plus second letter from the programme. Family &Community Science (Home Science) ie., HS

2. One digit to indicate the semester. ie., HS1 (1st semester)

3. One letter from the type of courses such as, A for common course, B for core course, C for Complementary course, D for Open course.

4. Two digits to indicate the course number of that semester. ie., **HS1BO1 Family and Community Science(Home Science), 1st semester, Core course, course number is 01**
5. The letter U to indicate for Under Graduate Programme.

i.e., HS1BO1U - Family and Community Science (Home Science) 1st semester, Core course, course number 01, U for UG Programme)

6. The letter (P) denotes practical

**EXAMINATIONS**

The evaluation of each course shall contain two parts such as Internal or In-Semester Assessment (IA) and External or End-Semester Assessment (EA). The internal grade awarded to the students in each course in a semester shall be published on the notice board at least one week before the commencement of end semester examination. The evaluation of all components is to be published and is to be acknowledged by the candidate. All documents of internal assessments are to be kept in the institution for 2 years and shall be made available for verification by the university. The responsibility of evaluating the internal assessment is vested on the teacher(s) who teach the course.

There will be University Examinations at the end of each semester for both theory and Practical with duration of 3 hrs. Project evaluation and Viva-voce will be conducted at the end of the programme only. The ratio between internal and external examinations shall be 1:3.

**EVALUATION AND GRADING**

The internal and external examinations shall be evaluated using Direct Grading system based on a 5-point scale as given below.

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<td>B</td>
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<td>C</td>
<td>Good</td>
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<td>1.5 to 2.49</td>
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<tr>
<td>D</td>
<td>Average</td>
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<td>0.5 to 1.49</td>
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<td>Poor</td>
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The components of the internal (IA) and external evaluation (EA) for theory and practical and their weights are as below:
THEORY

IA = Total weight = 5

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b. Assignment – Weight=1

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One assignment as an internal component for every course. The topic for the assignment shall be allotted within 6th week of instruction.

c. Seminar – weight = 1

Expected to train the student in self-study, collection of relevant matter from the books and internet resources, editing, document writing, typing and presentation.

<table>
<thead>
<tr>
<th>Component</th>
<th>Weight</th>
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<tbody>
<tr>
<td>a. Punctuality</td>
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<tr>
<td>b. Topic &amp; content</td>
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<tr>
<td>c. Presentation</td>
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<tr>
<td>d. Response to questions</td>
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d. Tests - weight=2

Weight of Best two test papers.

EA - Total weight = 25

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<tr>
<th>Part</th>
<th>Type</th>
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<tr>
<td>A</td>
<td>16 Objective type questions</td>
<td>1 for each bunch</td>
<td>All questions</td>
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<tr>
<td></td>
<td>of 4 bunches</td>
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<tr>
<td>B</td>
<td>Short answer type</td>
<td>1 each</td>
<td>5 out of 8</td>
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<tr>
<td>C</td>
<td>Short essay type questions</td>
<td>2 each</td>
<td>4 out of 6</td>
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<tr>
<td>D</td>
<td>Essay Type questions</td>
<td>4 each</td>
<td>2 out of 3</td>
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</tbody>
</table>

*Total weight = 4+5+8+8=25

*Ensure that questions covering all skills are set (Knowledge acquired, Standard application of knowledge, ability to synthesize knowledge )

*Questions to cover the entire syllabus.

*Conducted at the end of every semester and will be of 3 hrs duration.
*Attendance:

The attendance of students for each course shall be another component of internal assessment with weight one. The minimum requirement of aggregate attendance during a semester for appearing in the end semester examination shall be 75%. Condonation of shortage of attendance to a maximum of 10 days in a semester subject to a maximum of two times during the whole period of the graduate programme may be granted by the University.

If a student represents his/her institution, University, State or Nation in sports, NCC, NSS or Cultural or any other officially sponsored activities such as college union/ University union activities, he/she shall be eligible to claim the attendance for the actual number of days participated, subject to a maximum of 10 days in a semester based on the specific recommendations of the Head of the department and Principal of the college concerned.

### PRACTICAL

<table>
<thead>
<tr>
<th>Components</th>
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<th>Components</th>
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<tbody>
<tr>
<td>a. Attendance</td>
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<td>Each examination board can specify the components of practical and assign the weight according to the area of specialisation based on the model questions.</td>
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<tr>
<td>b. Lab involvement</td>
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<td>b. Record</td>
<td>2</td>
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<tr>
<td>c. Written/Lab Test</td>
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<td>c. Viva Voce</td>
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</tr>
<tr>
<td>d. Record</td>
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<tr>
<td>e. Viva voce/Quiz</td>
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</table>

# The external examination of practical shall be conducted by the university at the end of each semester of three hours duration.

# It can be done by one external and one internal examiner during even semesters and two internal examiners in odd semesters.
### PROJECT

**IA - Total Weight = 5**

**EA - Total Weight = 15**

<table>
<thead>
<tr>
<th>Components</th>
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<th>Components</th>
<th>Weight</th>
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<tbody>
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<td>1. Punctuality</td>
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<td>3. Presentation</td>
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<td>(Clarity, brevity)</td>
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<td>4. Viva</td>
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<td>2. Introduction</td>
<td>2</td>
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<tr>
<td>1</td>
<td></td>
<td>(Relevance, applicability, aim &amp; objectives in general)</td>
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<tr>
<td>2</td>
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<td>3. Review of Literature</td>
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<td>(Relevance, recent literature/Related studies done in the field)</td>
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<td>4. Methodology</td>
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<td>(research design, Tool-appropriateness ,preparation, Sample-size, data analysis)</td>
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<td>5. Results &amp; Discussion</td>
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<td>(Presentation, Tables, method of analysis, interpretation of results)</td>
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<td>1</td>
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<td>6. Summary &amp; Conclusion</td>
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<td>1</td>
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<td>(Statement of problem, procedure, Findings, conclusions, Recommendations ) (in brief)</td>
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<td>7. Bibliography/References</td>
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<td>Techniques of writing(consistent Format-standard pattern, accuracy of reference reporting(text of the project Vs bibliography)</td>
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<td>8. General Get-up</td>
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<td>Absence of mistakes(typographical errors, grammar, omission of sentences, pagination, style &amp; clarity)</td>
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<td>9. Viva-Voce</td>
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<td>communication skill 1 - 1</td>
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</table>

*Project work shall be completed working outside the teaching hours.
*It shall be carried out under the supervision of a teacher in the concerned department.
*The project report should not exceed more than 25 pages.
*The project certified by the supervising teacher should be submitted during the external practical examination at the end of sixth semester.
*The external evaluation of the project work is followed by Viva-Voce and shall be done by one external and one internal examiner.
# EXAMINATION SCHEME: CORE COURSE

<table>
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<td>HS1BO1U</td>
<td>Methodology of Home Science and Food Science</td>
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<td>HS2BO2U</td>
<td>Human Physiology and Micro Biology</td>
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<td>HS3BO3U</td>
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<td>HS4BO4U</td>
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</table>
SEMMESTER I

METHODOLOGY OF HOME SCIENCE AND FOOD SCIENCE

Course Code: HS1BO1U

Teaching hours: 2hrs/week (Hrs./Sem. 36)

Credit: 4

Objectives:
- To familiarize with basic areas of Home Science
- To understand the basic methodology of research, principles and techniques
- To understand the composition, chemistry of foods and their applications in food preparations.

Methodology of Home Science

Module I: Home Science – A Multidisciplinary Approach (2 hrs)
Concept and Scope of Home Science

Module 2: Thrust Areas of Research (10 hrs)
Definition, Importance, Research Trends in Home Science
Research Methods – Need for research and types (case study, experimentation, survey, observation)
Tools of data collection (Rating scale, Questionnaire, Interview schedule)
Sampling techniques – definition, random sampling, simple random sampling, systematic random sampling, non random sampling, -probability sampling (purposive, stratified, convenience, snowball sampling)
Tabulation – definition, parts of a table, presentation (diagram, bar, pie)
Components of a project report
Related experience
Development of an interview schedule/questionnaire related to any area of Home Science.

Core Readings:
- Gupta S.P(2007), Statistical Methods, Suthan Chand and Sons, New Delhi
Food Science

Module 3: Introduction to Food Science (2 hrs)
Food as a source of nutrients, functions of foods, food groups (basic five – ICMR), food preparation – objectives and methods. Genetically Modified Foods, organic foods- basic concepts.

Module 4: Study of macronutrients

Carbohydrates (5 hrs)

Proteins (5 hrs)
Structure, classification based on function (complete, partially complete, incomplete), denaturation, food proteins- non traditional proteins- single cell (yeast), leaf proteins (spirulina), textured vegetable protein (soya).

Lipids (5 hrs)
Lipids in foods (visible and invisible), fatty acids (saturated, unsaturated, essential), rancidity - types, factors leading to rancidity, prevention, hydrogenation, applications of lipids in food preparations.

Module 5: Studies of Foods

1. Cereals (3 hrs)
Structure, composition and nutritive value, gluten formation, role of cereals in cookery, common cereals and millets in India, role of cereals in cookery.

2. Pulses (3 hrs)
Nutritive value and composition, germination, fermentation, advantages, anti nutritional factors (trypsin inhibitors, lathyrisms). Important pulses in India.

3. Milk and milk products (3 hrs)
Composition and nutritive value, pasteurisation, homogenisation, advantages. Milk products (whey proteins, skim milk, evaporated, condensed, dry milk, khoa, icecream, toned milk, flavoured milk, fermented milk, butter, cheese, curd).
4. Egg (3 hrs)
   Structure, composition and nutritive value, deterioration in egg quality, evaluation of egg quality, egg white foam, factors affecting, culinary role of eggs designer eggs.

5. Meat (2 hrs)
   Structure, composition and nutritive value, classes of meat and products.

6. Fish (2 hrs)
   Classification, types, composition and nutritive value, fish spoilage and preservation, fish products.

7. Vegetables and fruits (4 hrs)
   Classification, composition and nutritive value, pigments, flavour components, organic acids and enzymes, effect of cooking on pigments, changes in fruits during ripening, enzymatic and non-enzymatic browning, methods of prevention, antioxidant role.

8. Spices (2 hrs)
   Types, functions, culinary role

9. Food Preservation (3 hrs)
   Food spoilage, principles and methods of food preservation(low temperature, high temperature, high osmotic pressure, irradiation, dehydration, high concentration of sugar and salt)

Core Readings
- Swaminathan M (1998), Handbook of Food Science and Experimental Foods
- Chandrasekhar U(2002), Food Science and its Applications in Indian Cookery, Phoenix Publishing House, New Delhi
- Roday, S(2007), Food Science and Nutrition, Oxford University, New Delhi.
Methodology of Home Science and Food Science - Practical

Course Code: HS1BO1U (P)
Teaching hours: 2hrs/week
(Hrs./Sem.36)
Credit: 1

Course Outline

1. Determination of taste threshold for sweet, salt, sour and bitter
2. Factors influencing the stability of egg white foam
3. Stages of sugar cookery
4. Gelatinization temperatures of various types of starches
5. Effect of cooking on vegetable pigments
6. Enzymatic and Non-enzymatic browning, Methods to prevent browning in fruits
7. Food preservation techniques (jams, squashes, pickles)

A record of practical should be maintained

SEMESTER II

HUMAN PHYSIOLOGY AND MICROBIOLOGY

Course Code: HS2BO2U
Teaching hours: 2 hrs/week (Hrs./Sem.36)
Credit: 2

Objectives:

- To understand the integrated functions of the various systems of the human body.
- To understand the economic importance of microorganisms.
- To understand the principles of various methods used in the prevention and control of micro-organisms.
• To study the food standards and role of various agencies in maintaining quality control

Course Outline

HUMAN PHYSIOLOGY

Module 1: (2 hours)
Definition of physiology, Structure and functions of a cell, cell division, tissues, organs

Module 2: Digestive System (2 hours)
Structure of digestive tract, Digestion and absorption of carbohydrates, fats and proteins.

Module 3: Respiratory System (3 hours)
Organs of respiratory system, Mechanism of respiration, gaseous exchange in lungs and tissues, pulmonary volumes and capacities.

Module 4: Blood (4 hours)
Composition and Functions of Blood, Plasma Proteins, Haemoglobin, haematopoiesis, coagulation of blood, Blood groups, Erythroblastosis foetalis.

Module 5: Cardiovascular System. (4 hours)
Structure of Heart, Special conducting tissues of the heart, properties of cardiac muscles, Cardiac cycle, Systemic and Pulmonary circulation, heart rate, heart sounds, blood pressure.

Module 6: Excretory System (3 hours)
Structure and function of Kidney, Nephron, Mechanism of Urine formation, Micturition.

Core Readings:


Advanced References:
Guyton: Medical Physiology
C.C.Chatterjee: Human Physiology, Vol I and II.

MICROBIOLOGY

Module 7: Basic concepts of Microbiology (3 hours)
Classification of microorganisms, important microorganisms- Structure and economic importance of microorganism-bacteria, moulds (Rhizopus nigricans, Yeast, virus(any animal virus))
Module 8: Sterilization and Disinfection
(2 hours)
Definition and methods.

Module 9: Culture media and Culture Techniques
(2 hours)
Factors affecting the growth of microorganisms, Culture media and culture techniques, isolation and identification, grams staining.

Module 10: Infection
(4 hours)

Module 11: Resistance and Immunity
(2 hours)
Natural defences of the body—primary and secondary defence mechanisms. Immunity-typess, immunization followed for various diseases.

Module 12: Food Microbiology
(3 hours)
Contamination of food, Factors affecting food spoilage, food poisoning-bacterial and viral- Salmonella food poisoning, Staphylococcal food poisoning, Botulism and viral gastroenteritis.

Module 13: Food Safety and regulations
(2 hours)
Importance of food safety and factors affecting food safety. Food Standards (PFA,FPO,BIS,Agmark,Consumer Protection Act), HACCP-Food Quality Assurance System. Food adulteration- definition, common adulterants-Metanil yellow, Rhodamine, chalk powder etc

Core Readings:

HUMAN PHYSIOLOGY AND MICROBIOLOGY-PRACTICAL

Course Code: HS2BO2U (P)
Teaching hours: 2hrs/week (Hrs./Sem.36)

Credit: 1

I

1. Determination of Rh group
2. Determination of Blood group
3. Measurement of blood pressure
4. Estimation of Haemoglobin

II
1. Preparation of wine and curd (economic importance of microorganisms)
2. Identification of microorganisms by gram staining.
3. Detection of metanil yellow in Turmeric
4. Detection of Rhodamine B in red chilly (whole or powdered)
5. Detection of sugar in honey
6. Detection of vanaspathi in ghee/oil.

(A record of the entire practical should be maintained)

SEMESTER 111

HUMAN DEVELOPMENT AND FAMILY INTERACTIONS

Course Code: HS3BO3U

Teaching hours: 3hrs/week (Per Sem 54)

Credit: 3

Objectives:
- To impart basic knowledge on the principles and pattern of growth and development in children from conception to old age.
- To create awareness on the various factors that stimulates growth and development.
- To orient students on the current issues in Human Development.
- To expose students to the various aspects of adolescents development.
- To help students develop an awareness and concern for Challenged Children, their needs and problems.
- To create an awareness on the important aspects of population Dynamics.
Course outline

Module 1: Introduction to Human Development

Child Development- Significance and scope
Methods of child study- Anthropometry, Observation, Interview, Questionnaire,
Case study, Projective techniques Psychological tests, Sociometry, Longitudinal
and cross sectional approach.
Growth and development- Definition, Principles, Stages, Areas, factors influencing
development Heredity and environment interaction.
Needs of children

Module 2: Prenatal development

Prenatal development – Conception, stages factors influencing Complications/ hazards
during pregnancy
Prenatal care, child birth, At risk babies, Baby friendly hospitals

Module 3: Neonate

Neonate-Physical characteristics, abilities, adjustments, Apgar test
Care of the new born, Immunization

Module 4: Development during childhood and adolescence years

Infancy, Babyhood, early childhood, late childhood and adolescence physical
motor, Intellectual, emotional, social, language, moral and religious development during
above stages. Factors influencing

Module 5: Early childhood care and education

Preschool; education- Objectives and types
Play- Importance, types, selection of toys
Discipline- Essentials techniques and its effect on children
Habit formation- definition and principles
Behaviour problems- definition, causes methods of handling

Module 6: Children with special needs

Challenged children- Definition, General classification, General causes and
prevention.

Module 7: Issues of ageing

Demographic profile, needs and problems of the elderly
Care of the aged

Module 8: Crisis in the family and contemporary issues affecting family

Infidelity, desertion, divorce, alcoholism, death, suicide, disabilities, financial crisis
and its effect on family. Need for guidance and counseling.
Urbanization and globalization, maternal employment, single lone parenthood,
reconstituted families, Influence of electronic media

Module 9: Population education

Definition, problems of overpopulation
Responsible parenthood
Methods of family planning
Sex education
**Core Readings**


**HUMAN DEVELOPMENT AND FAMILY INTERACTIONS-PRACTICAL**

**Course Code:** HS3BO3U (P)

**Teaching hours:** 2hrs/week (Per Sem 36)

**Credit:** 1

**Practical (To be recorded)**

1. Observation and reporting of various developments in a preschool child- Physical motor intellectual emotional and social developments.  
   (12 hrs)

2. Visit to any one of the following places- Baby friendly Hospital / Anganvadi / SOS village / Orphanage / Home for the aged / Institutions for children with special needs. (3 hrs)

3. Recording the height and weight of preschool children using a growth chart.  
   (2 hrs)

4. Preparation of an art/ craft activity for preschool children  
   (4 hrs)

5. Critically evaluate the suitability of any one toy available in the market  
   (3 hrs)

**Related Experience (Not to be recorded)**

1. Discuss the common problems of adolescents  
   (2 hrs)

2. Make a list of toys/ gifts/ CDs and DVDs/Video games for children in a shop  
   (2 hrs)

3. Analyze the disciplinary technique used in one’s home and its effect on one’s behavior.  
   (2 hrs)
4. Prepare charts on:-
   Stages of development
   Areas of development
   Immunization schedule
   Changes in body size (0-3 years)
   Motor milestones (4 hrs)

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General Psychology

Course Code: HS4BO4U

Teaching hours: 3hrs/week (Per Sem 54)

Credit: 3

Objectives:

- To understand the physiological basis of human behaviours.
- To study the processes involved in perception and motivation.
- To understand the manifestations of abnormal behaviour patterns and the therapies prescribed.

Module 1: Psychology
Definition, major subfields of psychology

Module 2: Biological basis of behaviour
Nervous system – Basic units, Organization, Brain, major parts, association areas, Hemispheric specialization,
Endocrine system, Genetic influences on behavior.

Module 3: Sensation, Attention and Perception

Module 4: Learning and Conditioning
Classical and Instrumental Conditioning, Observational Learning Cognitive learning

Module 5: Motivation and Emotion
Motives – Definition, functions, types Maslow’s theory of motivation Definition and nature of emotion
Module 6: Memory
Sensory, short term and long term memory Forgetting- curve of forgetting, reasons for forgetting Memory techniques

Module 7: Personality
Personality – definition, Determinants of personality, Types of personality – Introvert, extrovert, Type A. Self concept & self esteem.

Core Readings


- Mangal SK. Advanced educational Psychology (2004) Prentice-Hall Of India Pvt. Limited, 01-

GENERAL PSYCHOLOGY - PRACTICAL

Course Code: HS4BO4U (P)
Teaching hours: 2hrs/week (Per Sem 36)
Credit: 1

1. Illustrate a few perceptual illusions and write a brief report on illusions.

2. Select a suitable intelligence test and administer to a class of adolescents, score and evaluate.

3. Illustrate the Hierarchy of Needs according to Maslow. Write a brief explanation of Maslow’s theory.
4. Apply what you have learned about memory to your academic studies/explain the methods that help people to remember: audio, visual, mnemonic and repetition, note-taking.

5. Select any one Personality test/Projective technique and administer, score and evaluate the test.

6. Administer a suitable test on self-esteem/ self-concept/self-motivation score and evaluate the test

(A record of the entire practical should be made)

Semester V

INTERIOR DECORATION

Course Code: HS5BO5U

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives:

To enable the students:

- To use and understand the elements and principles of Design
- To develop basic skills for a career option in Interior Design.
- To gain the basic knowledge of furniture arrangement and furnishing the residential space

Unit 1: Art in daily living (3 hours)
Introduction to Interior Design, Importance of good taste, Concept and objectives of interior decoration.

Unit 2: Design (9 hours)
Definition, Types of design, Characteristics and sources of design ; Elements of design-line, shape, texture, colour, pattern, light and space ; Principles of design- proportion, balance, rhythm, emphasis, harmony.

Unit 3: Colour (9 hours)
Prang colour system, Qualities of colour, Colour harmonies and schemes; use and effects of various colours

Unit 4: Lighting (6 hours)
Importance of home lighting, types of lighting- natural and artificial - Importance of Natural Lighting for healthy environment ; types of lamps and lighting fixtures for artificial lighting ; Physical and Psychological aspects of lighting, illusion.

Unit 5: Furniture and Furnishing (9 hours)
Furniture requirement for various rooms, guidelines for selection and arrangement of furniture, Classification and selection of soft furnishings, window treatments - curtain styles, selection and care of rugs and carpets.
Unit 6: Accessories (6 hours)
Classification and their role in interiors, flower arrangement-principles, different styles, and basic shapes, drying techniques and dry flower arrangement, indoor gardening and bonsai.

Unit 7: Interior Space Organisation (6 hours)
Space requirement for various activities in various rooms; Size, layout, finishes, furniture, furnishings, accessories, lighting colour and storage for living, dining and bed rooms, Principles of space planning; Kitchen- types of kitchen, modular kitchen, working areas and work triangle.

Unit 8: External Space Organisation (6 hours)
Objectives and principles of landscape gardening, Types-formal, informal; Styles Garden components, routine duties in gardening

Core Readings:
- Anna .H. Ruth. – Home Furnishing
- Andes Sally – Enjoy Flower Arranging
- Craig and Rush- Homes With Character
- Goldstein. H & Goldstein V. – Art in Everyday Life
- Supriya K.B.- Landscape gardening and designing with plants.

INTERIOR DECORATION -PRACTICAL

Course Code: HS5BO5U (P)
Teaching hours: 3hrs/week (Per sem: 54)
Credit: 1

Course Outline

Unit 1. Design (8 hours)
Application of various types of design, elements of design and principles of designs; Application of motif in a design suitable for furnishing and accessories.

Unit 2. Colours (6 hours)
Preparation of colour charts and application of colour schemes in a design/room.

Unit 3. Flower Arrangement (8 hours)
Demonstration of basic shapes in flower arrangement, Drying techniques and dry flower arrangement, Artificial flower making and arrangement

Unit 4. Curtain Styles (4 hours)
Illustration of various curtain styles.

Unit 5. Evaluation of Interiors (4 hours)
Living room, dining room, bed room, bath room, kitchen etc. (Any 2 rooms)

Unit 6. Creative arts (6 hours)
Creative arts – decorative and functional art, creation of art objects.

(A record of the entire practical should be maintained)
HUMAN NUTRITION AND BIOCHEMISTRY

Course Code: HSSBO6U

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

- To obtain an insight into the chemistry of major nutrients and physiologically important compounds
- To understand the role of nutrition in different stages of life cycle
- To enable the students to plan menus in accordance with basic concepts for nutrition

Course Outline

Module I: Nutritional Biochemistry

Unit 1. Introduction to Nutrition Science
The Indian Nutrition Scenario, Food Security Issues, Future challenges for nutrition research

Unit 2. Recommended Dietary Allowances
Definition, Factors affecting RDA, RDA for different nutrients, Indian reference man and woman

Unit 3. Human Energy Requirements
Definition of energy requirements, factors influencing food intake, components of energy expenditure. Measurement of BMR, factors affecting BMR, thermic effect of food and energy expended in physical activity. Methods of estimating energy expenditure, direct, indirect calorimetry, factorial estimation, DLW technique, Energy requirements.

Unit 4. Macronutrients and their metabolism
a) Carbohydrates- classification, functions, metabolism, regulation of blood glucose concentration, types of dietary fibre, physiological and metabolic effects of dietary fibre and potential health benefits, Glycemic index
b) Proteins – Classification of proteins and amino acids, functions, metabolism of protein, protein turnover, methods of evaluating protein quality, improvement of quality of protein in the diet. Requirements
c) Lipids – Composition, structure, function, classification of fats and fatty acids, essential fatty acids, trans fatty acids, fat metabolism, requirements, choice of cooking medium in the context of n-3, n-6 fatty acid ratio in Indian diets.

Unit 5. Water

Unit 6. Fat soluble vitamins A, D, E and K
Fat soluble vitamins- An overview, food sources, functions, deficiency and requirements
Unit 7. Water soluble vitamins
An Overview, food sources, functions, deficiency, requirements

Unit 8. Minerals
a) Macrominerals – General functions, Functions, food sources, deficiency and requirements of calcium, phosphorus, sodium, potassium.
b) Microminerals – An introduction, factors affecting absorption of minerals, functions, food sources, deficiency and requirements of iron, iodine, fluorine and zinc.

Module 2: Principles of Human Nutrition

Unit 9. Nutrition through Lifecycle
a) Basic five food groups, Balanced diet, food guide pyramid, dietary guidelines for Indians

b) Nutrition in Infancy
Growth and development, Nutritional requirement, breast feeding, weaning and supplementary foods

c) Nutrition in Preschool Age
Physiological development and food intake, development of food habits, diet plan

d) Nutrition in Adolescence
Growth and development, nutritional requirement, factors influencing dietary pattern of the adolescent

e) Nutrition in Pregnancy
Physiological changes during pregnancy, importance of nutrition in pregnancy, diet for the pregnant mother, complications in pregnancy- gestational diabetes, toxemia, infections, effect of maternal malnutrition on foetus

f) Nutrition in Lactation
Nutritional requirements, human milk composition and importance, lactogogues, diet planning.

g) Nutrition in Old Age
Changes during old age, nutritional requirements, diet planning.

Core Readings
• Park, K., Park’s Textbook of Preventive and Social Medicine, 18th edn 2005, M/s Banarsidas Bhanot Publishers, Jabalpur, India.
• C. Gopalan, B.V. Ramasastri and S.C. Balasubramanian (2007) Nutritive value of Indian Foods. NIN, ICMR Hyderabad 500 007
HUMAN NUTRITION AND BIOCHEMISTRY-PRACTICAL

Course Code: HS5BO6U (P)
Teaching hours: 2hrs/week (Per sem: 36)
Credit: 1

Course Outline

I. Food Analysis
   1. Qualitative tests for carbohydrates, protein, calcium, phosphorus and iron
   2. Quantitative tests for
      a. Lactose in milk
      b. Vitamin C in food stuffs
      c. Calcium in foods

II. Planning, preparing and serving normal diets for
   1. Infants
   2. Preschool age
   3. School going age
   4. Adolescence
   5. Adult/Labourer
   6. Pregnancy
   7. Lactation
   8. Old age

TEXTILE SCIENCE

Course Code: HS5BO7U
Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives

- To gain knowledge about Textile fibres and their uses.
- To develop an understanding about various kinds of traditional and modern fabrics, their structure and the utility.
• To impart knowledge about Textile dyeing and printing.
• To develop skill in understanding textiles available in the market.

Course Outline

Module 1: Study of Fibres (8 hrs)

Methods of identification of textile fibres.

Module 2: Study of Yarns (12 hrs)

Definition, Processes of making Fibre in to yarn (cotton and woolen systems): - Mechanical (Ring and Open End spinning) and chemical.
Classification of yarn: - type, count, twist, number of parts, novelty yarns, textured yarn and bi-component yarn.

Module 3: Fabric Structure (14 hrs)

Weaving: - Preparation of yarns for weaving, loom- parts and its operations, Modern shuttle less looms- air jet and projectile loom.
Weaves:- Basic weaves- plain, twill, satin and its variations. Fancy weaves- pile, dobbý, jacquard, leno, clip spot, lappet, double cloth, and crepe.
Characteristics of woven fabrics: Yarns-warp and weft, grain, thread count, balance and selvages.
Other methods of making fabrics:-knitting, felting, braiding, netting, lace making, and bonding.

Module 4: Dyeing and Printing (8 hrs)

Dyes and dyeing:- classification of dyes- natural, artificial-acid, basic, direct, sulphur, vat naphthol, disperse and mordents.
Stages of dyeing - stock, yarn, piece, cross, and union.
Printing:-Direct-block, roller and screen, discharge, resist- tie and dyeing and batik.

Module 5: Fabric Finishes (8 hrs)

Definition, purpose, classification and types-singeing, scouring, bleaching, sanforizing, calendaring, tentering, sizing, weighting, brushing, napping, crepe and crinkled effect, crease resistance, functional finishes-Stain resistant & antimicrobial.

Module 6: Modern Textiles (4 hrs)


Core Readings:

• Mc. Graw Hills book co:


TEXTILE SCIENCE -PRACTICAL

Course Code: HS5BO7U (P)

Teaching hours: 2 hrs/week (Per sem: 36)

Credit: 1

Course Outline

1. Collection of different fibres (Cotton, Silk, Polyester, Nylon, wool and rayon)
   Testing of fibers: - Visual Inspection, Burning and Microscopic (10 hrs)

2. Fabric structure: Basic weaves- Collect samples for all the Basic weaves and their variations. Fancy weaves-Collect samples for (Pile, Dobby, Jacquard, Leno, Clip spot, Lappet and Double cloth) (10 hrs)

3. Thread count: - Collect samples for low medium and high count fabric. (4 hrs)

4. Prepare samples for Block, Batik and Tie & Dye (any two variations) (6 hrs)

5. Visit to Mills / Textile Shops. (6 hrs)

A record of the entire practical should be maintained.
DYNAMICS OF EXTENSION

Course Code: HS5BO8U

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives

To enable the students to

- Understand the widening concept of extension
- Appreciate the role of extension, especially home science extension in community development.
- Orient students to the socio cultural and economic environment of rural, urban and tribal communities.
- Develop skill in planning, implementing and evaluating an extension programme.

Course outline

Module 1: Extension

Meaning and objectives of extension in India
Concept of extension educational process.
Role of Extension worker.
Qualities of an extension worker.

Module 2: Community Development

Meaning and objectives.
Special features of rural, urban and tribal communities in India.
Role of extension in community development with special emphasis to home science extension.
Role of community organizations (panchayats, cooperatives and schools) in community development.
Community development programmes for women and children in rural areas.- DWCRA, ICDS and Indira Mahila yojana

Module 3: Leadership

Concept and definitions, types of community leaders- Professional leader and lay leaders-
autocratic, democratic and lassiez-faire leaders
Methods of identifying community leaders.
Leadership for community development.

Module 4: Learning and teaching in extension

Criteria for effective extension teaching.
Steps in extension teaching.
Extension teaching methods (methods of community contact)- Individual, group and mass methods
Individual method-personal visits, letters, discussions.
Group method-meetings, discussions, demonstrations, folk songs, drama, role play, seminar, field trips, exhibitions.
Mass method-Print and electronic media.
Modern methods-Tele conferencing, tele text, net working, satellite communication.

Module 5: Audio-visual aids

Meaning.
Classification-audio, visual and audio-visual aids.
Cone of experience.
Selection and use.

Module 6; Programme planning in extension

Objectives, principles, steps involved in extension programme planning.

DYNAMICS OF EXTENSION - PRACTICAL

Course Code: HS5BO8U (P)
Teaching hours: 2hrs/week (Per sem: 36)
Credit: 1

Course Outline

1. Extension (8 hours)
   Interview an extension worker to find out his/her role.

2. Community Development (8 hours)
   Conduct a survey to find out the role of any one community organization in community development.

3. Learning and Teaching in Extension (10 hours)
   1. Collection and evaluation of audio visual aids
   2. Preparation and use of visual aids (leaflet, pamphlet, chart and poster)

4. Programme planning in Extension (10 hours)
   Planning, implementing and evaluating an extension programme. Related to home science

   (All the topics should be related to Family and Community Science. A record of the entire practical should be maintained.)
Core Readings:

- The Indian Journal of Extension Education, The Indian Society of Extension Education, Division of Agricultural Extension, IARI, New Delhi-110 012

OPEN COURSE (For students of other programme)

INTERIOR DECORATION AND RELATED ARTS

Course Code: HS5DO1U1

Teaching hours: 4hrs/week (Per sem: 72)

Credit: 4

Interior decoration is one area of specialization which focuses attention on the functional and aesthetic aspects of residences, commercial establishments and work spaces. This subject has grown so much in scope and career and is attracting students for pursuing a lifelong career.

Objectives

To enable students to-

- Learn to appreciate art
- Understand elements and principles of art and design
- Develop skill in creating designs and making art objects
- Gain knowledge in principles of planning different residential spaces
- Develop skills in selection of furnishings fabrics, art objects, accessories
- Understand the principles of furniture arrangement and lighting.
Course Outline

1. Concept of interior decoration-introduction to foundation of art, importance of good taste in interior decoration  
   2 hrs

2. Design-definition and types: structural and decorative  
   3 hrs

3. Elements of design-line form, shape, texture, space pattern, light.  
   6 hrs

4. Principles of design-proportion, balance, harmony, emphasis, rhythm  
   8 hrs

5. Colour-Importance of colour in interiors, Prang colour system, colour harmonies, application of colour.  
   8 hrs

6. Housing-Family’s housing needs, factors influencing selection and purchase of site, reading house plans, principles of planning a house.  
   6 hrs

7. Illumination-Importance of lighting for interiors, Types of lighting-natural and artificial, design of fixtures, arrangement and lighting for various purposes  
   6 hrs

8. Furniture- Selection and arrangement of furniture, types-dual purpose, built in, furniture requirements for various rooms.  
   5 hrs

9. Soft furnishings-Selection, classification, curtain styles, hanging of curtains-pelmets, swags, valences and their effect, planning curtain styles for different types of windows.  
   6 hrs

10. Accessories- Types and their role in interiors.  
   2 hrs

11. Indoor gardening-Types and suitability of plants, care  
   4 hrs

12. Flower arrangement-Different styles, principles of flower arrangement, basic shapes.  
   6 hrs

13. Surface ornamentation-Basic hand stitches-classification, decorative stitches fabric painting  
   10 hrs

Core Readings

LIFE SKILL STRATEGIES AND TECHNIQUES

Course Code: HS5DO1U2

Teaching hours: 4hrs/week (Per sem: 72)

Credit: 4

Objectives:

- To empower young people to effectively meet the challenges of everyday life
- To enable learners to acquire knowledge and to develop attitudes and skills which lead to healthy behaviour patterns
- To lay the foundation for a responsible lifestyle, sound relationships and safe habits

Module-1: Communication and Interpersonal Relationships
- Verbal and Non-verbal Communication
- Active Listening
- Negotiation and assertiveness
- Advocacy skills (12 hours)

Module 2: Adolescent Health and Nutrition
- Physiological Aspects of growth and development during adolescence
- Nutrient needs and recommended dietary intakes
- Problems of adolescent nutrition- Obesity, Anorexia Nervosa, Bulimia, Binge eating disorder, under nutrition.
- Food guide pyramid and dietary guidelines for adolescents
- Changing trends in food habits-Fast foods, junk foods, eating healthy campaign. (12 hours)

Module 3: Enhancing Personality Through Clothing and Grooming
- Essentials in good grooming
- Expressing individuality through costume selection
- Design elements of good costume
- Selection of costumes for various occasions and wardrobe smartness. (12 hours)

Module 4: Personal and Community Resource Management
- Time Management for adolescents- Significance and techniques
- Work simplification for energy management
- Income management through supplementation and savings
- Environmental pollution-causes and consequences
- Waste management techniques
- Rain water harvesting
- Role of individuals in conserving environmental resources

(12 hours)

**Module 5: Career Enhancement**
- Goal setting
- Job Application process
- Interview and Group discussion
- Presentations skills

(12 hours)

**Module 6: Transition from Adolescence to Responsible Adulthood**
- Deterrents to Adolescent Health: Substance abuse, Teenage pregnancy, STD, HIV, AIDS
- Pre-requisites for sound marital relationship
- Managing feelings and coping with stress

(12 hours)

**Core Readings:**

**NUTRITION FOR WELLNESS**

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**Course Code:** HS5DO1U3

**Teaching hours:** 4hrs/week (Per sem: 72)

**Credit:** 4

**Objectives**

To enable students to:
• Understand the relationship between nutrition and health
• Modify diets in order to promote health and reduce the risk of deficiency and chronic diseases
• Assess the nutritional status of individuals in different stages of life.

Course Outline

Module 1: Introduction to Nutrition: (6 hours)
Introduction, Classification of foods (based on origin, chemical composition predominant function, nutritive value, ICMR Food Groups) Relation of food and health, food and its functions, Digestion, absorption and utilization of food.

Module 2: Food Choices and Nourishment (18 hours)
Nutrients and their function: Proteins, fats, carbohydrates, Energy, Vitamins, Minerals and Trace elements: - sources, functions, Recommended dietary allowances, deficiency, prevention and treatment

Module 3: Non Nutrient Compounds of Foods (4 hours)
Anti nutritional factors, Trypsin inhibitors, phytates, Tannins, Oxalates, goitrogens, other toxic agents in food, other xenobiotics and dietary fibre.

Module 4: Planning a healthy diet (18 hours)
Factors affecting meal planning, balanced diet, steps in planning balanced diet, Life cycle nutrition: Nutritional requirements and planning diets during pregnancy, lactation, Infancy, preschool, school age, adolescents, adults and old age.

Module 5: Modified Diets (16 hours)
Introduction- Purpose of diet therapy, classification of modified diets, Diets for selected disorders: Diabetes Mellitus, Typhoid fever, cardiovascular diseases-Atherosclerosis, hypertension; Peptic ulcer, Cirrhosis of liver, glomerulonephritis.

Module 6: Assessment of Nutritional Status: (4 hours)
The methods of assessment of nutritional status
- Anthropometry, Biochemical changes,
- Clinical examination of signs, Dietary Analysis
- Vital health statistics

Module 7: Weight Management: (Obesity and Underweight) (4 hours)
Introduction, aetiology, assessment, principles of dietary management, dietary guidelines
Module 8: Functional foods and its role.

Module 9: Phyto chemicals, sources, benefits and its function

(2 hours)

Core Readings:
- Srilakshmi B, Dietetics, New Age International (p) Ltd, Publishers, New Delhi, 2010
- Gopalan C, Ramasastri, B.V and Balasubramanian S.C, Nutritive value of Indian Foods, NIN, Hyderabad 2007

SELF EMPOWERMENT SKILLS

Course Code: HS5DO1U4

Teaching hours: 4hrs/week (Per sem: 72)

Credits: 4

Objectives:
- TO develop Pleasing Personalities and to make them efficient in life.
- To develop Resource Management skills.
- To develop effective communicative skills.
- To enhance self empowerment
- To mould students as sociable persons
- To transform students graceful to the family & society.
Course outline

Module 1: Personality Development (10 hrs)

1. Definition, Determinants
2. Values to cherish
3. Steps to build Positive self esteem
4. Tips to develop a positive personality

Module 2: Resource Management skills. (10 hrs)

1. Resources – definition, Types
2. Management- definition, Steps in management process, Decision making
3. Time management- Time Schedule, Tools in Time management

Module 3: Communication Skills. (12 hrs)

1. Intelligent Listening
2. Effective speaking
3. Impressive writing skills- letters, note taking.
4. Presentation skills – Making word file in computer, preparation of OHP & Power Point Slides
5. Facing Interviews, Participating in group discussions.
6. Importance of interpersonal skills in relationships (Husband- Wife, Parent –Child, Teacher – student & sibling relationships).

Module 4: Learning Skills (10 hrs)

1. Intelligence – definition, areas of intelligence
2. Types of learning
3. Memory techniques
4. Scientific learning
5. Tips for writing examinations

Module 5: Social skills. (10 hrs)

1. Different social skills
2. Steps in fostering right attitudes
3. Qualities that make a person successful.

Module 6: Family life skills. (10 hrs)

2. Parenting skills
4. Stress management
5. Life skills for psycho – social development
Module 7: Aesthetic & Income generating skills. (10 hrs)

1. Interior decoration- Types, Elements & principles of design , colour combinations
2. Flower Arrangement
3. Meal planning, food preservation
4. Waste management , Wealth from waste

Core Readings:-


Semester V1

FAMILY RESOURCE MANAGEMENT

Course Code: HS6BO9U
Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives:
Help the learners
• To understand the principles of management and their application in the family context
• To acquire scientific skills in the management of resources
• To recognize the significance of resource management to enhance the quality of life of family and society.

Course Outline

Module 1: Introduction to management (9 hours)
Management basics – Theory of Management, steps involved in management, decision making – resolving conflicts, concepts of management – values, goals and standards, family characteristics influencing management – life cycle stages, types and composition of family, qualities of a good manager.

Module 2: Family Resources (3 hours)
Meaning and classification, characteristics of resources, factors influencing resource management, means to optimize satisfaction in resource management.

Module 3: Management of time (6 hours)
Time as resource, significance of time management, tools and aids in time management, time schedule – preparation and evaluation.

Module 4: Management of energy (6 hours)
Energy as resource, significance of energy management, energy requirements for various household activities, work curve. Fatigue – classification and causative factors and
alleviating techniques, work simplification – meaning and techniques, Mundell’s classes of changes, Study of labour saving equipments - principle, use and care of the equipments such as cookers, mixers and grinders, refrigerator, microwave oven, washing machine and dish washers.

**Module 5: Management of Money** *(9 hours)*
Family income as a resource – Types of income, income profiles ; Family expenditure – family budget – types of budget, steps in making family budget, Engel’s laws of consumption ; Financial records – types, purpose and advantages ; Savings and investments – meaning, saving institutions and schemes, supplementing family income, family credit – types, sources, use and misuse.

**Module 6: Management of household fuel and energy** *(9 hours)*

**Module 7: Waste management** *(6 hours)*
Types of domestic wastes, principles of waste management, 3 Rs of waste management, waste minimization, disposal of wastes, recycling of wastes and reuse of wastes.

**Module 8: Consumer education** *(6 hours)*
Consumer education – meaning, consumer problems, rights and responsibilities of a consumer, consumer aids, consumer redressal procedure and better buying practices.

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**Core Readings:**
- M.A.Varghese, N.Ogale, Home management.

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**FAMILY RESOURCE MANAGEMENT -PRACTICAL**

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**Course Code:** HS6BO9U(P)

**Teaching hours:** 2hrs/week (Per sem: 36)

**Credit:** 1

**Course Outline**

**I: Management of time** *(4 hours)*
Preparation of time plan for college girl/homemaker and its evaluation.

**II: Work study** *(8 hours)*
Determination of working height in vertical and horizontal planes, study of anthropometry and furniture sizes.
CLINICAL NUTRITION AND DIETETICS

Course Code: HS6BO10U

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives:

• To impart knowledge in the field of clinical nutrition
• Be able to make appropriate dietary modifications for various disease conditions based on the pathophysiology
• To develop capacity and aptitude for taking up dietetics as a profession
• Understand the consequences of nutritional problems in the society and have awareness on community nutrition based programmes.

Course Outline

Module 1: Introduction to Dietetics and Types of Diets (6hours)
Meaning and scope of dietetics, Role of Dietitian, Nutrition care process (NCP),
Types of dietary adaptations for therapeutic needs.
Types of Diets – Normal / General, soft and liquid diets
Mode of feeding – Oral , Enteral and Parenteral feeding

**Module 2: Nutritional Management of infections and fevers** (4hours)
Classification and etiology of fever / Infection
Medical Nutrition therapy in: Typhoid, Tuberculosis, HIV/AIDS

**Module 3: Nutrition, Diet and Cancer** (4hours)
Stages in the development of cancer, etiological risk factors for cancer - Dietary and non-dietary factors, Genetic factors, Environmental factors; Nutritional requirements for cancer patients, dietary management in cancer

**Module 4: Nutritional Management of Diabetes Mellitus** (4hours)

**Module 5: Nutrition and Coronary Heart Diseases (CHD)** (6hours)
Common disorders and complications of CHD, Prevalence, etiology and symptoms, Dietary management, Prevention of CHD.

Atherosclerosis-Phases, Etiology, Symptoms, Complications, Nutritional Management

Hypertension- Classification of BP, Hypertension - stages, etiology,dietary management, DASH diet

**Module 6: Gastro Intestinal Disorders** (4hours)
Etiology, symptoms and dietary Management of :Peptic ulcer, Constipation, Diarrhoea

**Module 7: Liver Diseases** (4hours)
Etiology, symptoms and dietary Management of: Hepatitis, Cirrhosis, Hepatic Coma

**Module 8: Nutritional Management of Renal Disorders** (4hours)
Common Renal Diseases, General Principals of dietary Management in Renal diseases, Etiology, Clinical symptoms and Dietary Management of Acute and chronic Nephritis, Nephrotic Syndrome

**Module 9: Nutritional care in weight Management** (4hours)
Weight imbalance, prevalence and classification; Guidelines for calculating ideal body weight. Etiology, Clinical manifestations, consequences and Dietary Management of Obesity, Underweight

**Module 10: Nutritional Problems of the Community** (8hours)
Prevalence, causes, consequences prevention and control of
• Protein Energy Malnutrition (PEM)
• Vitamin A deficiency
• Iodine Deficiency Disorders
• Iron Deficiency Anemia

**Core Readings:**

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**CLINICAL NUTRITION AND DIETETICS -PRACTICAL**

**Course Code:** HS6BO10U (P)

**Teaching hours:** 3hrs/week (Per sem: 54)

**Credit:** 1

**Course Outline**

1. Calculation of BMI using height-weight measurements
2. Preparation of Therapeutic Recipes (4 Hours)
   - Types of Therapeutic Diet (2 hours)
   - Normal
   - Soft
Fluid – Full Fluid and Clear Fluid Diets

3. Diet plan for Fevers
   • Cancer-breast cancer
   • Diabetes Mellitus
   • CHD
   • Peptic Ulcer
   • Hepatitis
   • Cirrhosis
   • Nephritis
   • Obesity
   • Under weight
   • PEM
   • Iron Deficiency Anaemia

4. Visit to a feeding programme / Diet clinic. (4 Hours)

(A record of the entire practical should be maintained)

FASHION DESIGNING AND APPAREL PRODUCTION

Course Code: HS6BO11U
Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives:

- To gain knowledge in fundamentals of fashion designing.
- To get practical experience in apparel illustration.
- To impart knowledge in apparel production, marketing and merchandising.
- To enable the students to develop skills in pattern making and garment construction.
Course Outline:

Module 1: Fashion Introduction and interpretation (24 hrs)

Fashion:- Definition, terminologies- style, fad, classic, fashion trend, haute couture, fashion life cycle, fashion forecasting and present day fashion.
Principles and factors influencing Fashion.
Elements and principles of design as applied to apparel designing.
Garment designing: - factors considered, basic shapes, the proportion of figures -
Basic 8- head theory, unusual figures (problems and remedies) - for tall figure, short figure,
stout figure, thin figure.

Module 2: Introduction to Body measurements and pattern making (10 hrs)

Body measurements:- Importance and methods of taking body measurements.
Pattern making: - Methods of pattern making-Drafting
Pattern Alteration- lengthening and shortening bodice block and skirt,
sleeve variations- puff and ¾ sleeve.

Module 3: Garment Construction (12 hrs)

Tools and equipments used for garment construction.
Sewing machine-parts, functions, care, maintenance common problems, reasons and remedies,
Steps in preparing fabric for construction, layouts, marking, cutting, stitching and finishing of garments.

Module 4: Apparel marketing and merchandising. (8 hrs)

Marketing- definition, marketing mix- 4 P’s (product, promotion, prices and place.)
Merchandising- definition, role and responsibilities of merchandiser—brief outline of various departments in an apparel industry, retail outlet and visual merchandising.

Core Readings;

FASHION DESIGNING AND APPAREL PRODUCTION - PRACTICAL

Course Code: HS6BO11U (P)
Teaching hours: 3 hrs/week (Per sem: 54)
Credit: 1

Course Outline

1. Fashion Illustration and Sketching
   Development of 8-head croquie. Sketching
   Of child frock and salwar kameez or churidar kurtha using croquies or figure
   templates (two styles) 8 hrs

2. Basic Construction Processes.
   Hand Stitches – Basting-, overcasting, hemming.

   Embroideries- Decorative stitches (min 5 no)

   Seams and seam finishes: Plain seam- French seam, flat fell seam, top
   stitched seam, and piped seam, seam finishes – double stitched seam
   finish.

   Fullness: gathers- gathering by hand, gathering by machine, gathering
   by elastic,
   Pleats-knife, box, and inverted -pin tuck,darts-standard dart and
   double pointed dart.
   Plackets: one piece placket and two piece placket.
   Bias and its applications- joining of bias pieces – bias facing, bias
binding, shaped facing. 
Hems- narrow machine stitched hem, stitched and turned hem, 
Fasteners- button and button hole, press button, hooks and eyes, 
Preparation of Paper pattern: Prepare paper pattern for child’s frock, 
churidhar/salwar and kameez. 

12 hrs

Construction of garments: child’s frock with any collar and any type of sleeve. 
16 hrs

A record of the entire practical should be maintained.

MASS COMMUNICATION AND JOURNALISM

Course Code: HS6BO12U
Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives:

To enable the students to

• Understand the concept, scope and significance of mass communication and its techniques.
• Sensitize students towards identifying materials and methods for effective communication.
• Familiarize undergraduate students with media studies by affording them an exposure to contemporary media and to provide an opportunity for them to pursue their areas of interest.

Module 1: Communication 10 hours

Definition, Functions, elements and process of communication
Four levels of communication—Intrapersonal, inter personal level, Group level and communication with mass audiences.
Functions of mass communication and its relevance to society.

Module 2: Modes of mass communication 18 hours
A. Print media—news paper, books, magazines, leaflets and pamphlets.
Characteristics and use

B. Electronic media - Radio, television, video, films, computer based technologies - email, internet, blogs, message boards (Basic or electronic), podcast, video sharing, mobiles.

Characteristics and use
Role of information technology in communication (internet, video conferencing, e-mail etc.)

C. Out door mass media - exhibitions, fairs, street drama
Characteristics and use.

D. Folk media (Traditional) - puppet show, folk songs, folk dances, drama etc.
Characteristics and use

E. Advertising and public relations - concepts and its role in modern society.

Module 3: Writing for the media
12 hours

Fundamentals of good writing.
Principles of writing news article for a newspaper and other print media.
Script writing for TV and radio programme and its presentation.
Techniques for preparation of effective advertisements.

Module 4: Public speech
5 hours

Understanding the audience
Planning and preparation of public speech
Presentation of public speech

Module 5: Journalism
9 hours

Definitions, functions, principles and importance.
Kinds of journalism - print (newspaper and periodicals)
Electronic (radio and television)
Online (web journalism)
Film journalism
Photo journalism
Characteristics and use.

Core Readings

- Pamar, Sryam (1976): Traditional folk media in India, New Delhi, Geka books.
• AAhuja, B.N, The Theory and Practice of Journalism.
• DDuglas Parker, Basic public speaking, 2nd edition. The roadmap to confident communication.
• MMahavir Mohnot, Art of speaking in public.
• Journal of Educational Research and Extension, Sri Ramakrishna Mission Vidyalaya College of Education, Coimbatore, Tamil Nadu, India.

MASS COMMUNICATION AND JOURNALISM - PRACTICAL

Course Code: HS6BO12U (P)

Teaching hours: 2hrs/week (Per sem: 36)

Credit: 1

Course Outline:

1. Modes of Mass Communication (20 hours)
   (All topics should be related to Family and Community Science)
   1. Create an e-mail id and send a message through e-mail.
   2. Create a message board. (Basic or electronic)
   3. Write a report of an exhibition/fairs/street drama you observed.
   4. Select a theme based on the content of home science and write a folk song.
   5. Prepare an advertisement to be published in a newspaper.

11. Writing for The Media (10 hours)
   1. Write a news article for a newspaper
   2. Write a script for a Radio programme.
   3. Write a script for a TV programme.

111. Public Speech (6 hours)
    Select a topic, prepare and present a speech.

A record of the entire practical should be maintained.
CHOICE BASED COURSES (ELECTIVE)

INTRODUCTION TO INDUSTRIAL APPAREL MANUFACTURING TECHNIQUES

Course Code: HS6BO13U1
Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives

- To understand the need and importance of apparel manufacturing techniques in industries.
- To study the processes involved in apparel manufacturing techniques in industries.
- To understand the importance of bulk production and reduction in production waste
- To study various techniques to maximize production with minimum investment

Module 1: Pattern Engineering
Introduction (6 hrs)
Pattern alteration-methods and need
Grading - Principles of Grading – Types of grading- Pattern layouts-open-closed-mushedhen.

Module 2: Marker and other preparations for cutting bulk in apparel industry (6 hrs)
Planning, Drawing and Reproduction of the Marker-Marker planning-Methods of marker planning-

Module 3 : Spreading and cutting (10hrs)
Definition, Function and Scope of cutting. Types of Spreads, Spreading Equipments and Tools-Spreading methods-Fabric packages.

Module 4: Garment assembly (10 hrs)
Industrial sewing machines: types, uses and working-straight stitch-button hole-button sewing-over locking.
Stitches: Definition, stitch classes, factors to be considered in the selection of stitches.
Seams: Definition, Types of seams, seam quality, seam performance, factors to be considered in the selection of seam, seam finishes, seam defects
Sewing Thread: Types, construction, sewing thread quality, sewing thread packages.
Sewing machine needles: Types, uses, selection
Other methods of assembling the garment-fusing-welding etc
Module 5: Garment finishing and packing (4 hrs)
Garment finishing - accessories - decoration - Ironing - pressing - folding - packing - equipments and method

Core Readings

- Harold Carr and Barbara latham, The Technology of Clothing Manufacture, Om Book Service, 2006

Related Experience:

1. Pattern alteration and Grading- grading of pattern in different sizes using different grading techniques
2. Final pattern, Marker making and spreading and Pattern lay (Any one garment)
3. Study of Cutting Techniques and machineries used in garment Industries (Round knife-straight knife-band knife-notcher-driller)
4. Garment assembly-study on machines, stitches in singer, usha and juki machine and seams for different Purposes (Lock stitch-(manual, industrial) over locking (stitches-type 301, 504)seams, class-2 welt seam-lapped fell seam(class-6-edge neatening. (6 hrs)
5. Garment finishing (surface embellishments(appliqué work-sequence-beading), ironing, folding and packing of shirt and trouser/salwar/churidar with top/sari/T-shirt/baba suits or any 2 garments in garment industries.
6. Visit to a garment unit.
FOOD QUALITY ASSURANCE

Course Code: HS6BO13U2
Teaching hours: 3hrs/week (Per sem:54)
Credit: 3

Objectives:-
The course will enable the students to:

- know the importance of quality assurance in food industries
- know the various tests and standards for quality assessment and food safety
- Know various tests used to detect food adulterants
- Be familiar with the fundamentals that should be considered for successful quality control programme developments in food safety and quality systems

Course Outline

Module 1: Introduction to quality assurance and food safety assurance
(6 hours)

Current concepts of quality control Food quality, Quality control- parameters followed in quality control, important considerations, principles of quality control

Module 2: Food safety:
(20 hours)

1. Food Sanitation and Hygiene-
- Water- potable water, sources of contamination, treatment of water
- Food – Food handling and the sources of contamination
- Practical rules for food sanitation

2. Food additives:
   Definition, Need for food additives, classification, Intentional additives, incidental additives
Module 3: Food Toxins/Contamination of food

Main Groups of Food Toxins – prevention/control

• Classification of toxic chemicals in foods-


B. Natural toxicants entering through contaminants: - (i) Plant origin, (ii) Microbial Origin, (iii) Biological origin


3. Food borne diseases /illness : Causes, symptoms and control

HACCP - Principles

4. Food borne infections: - (i) Bacterial Diseases- Typhoid fever, Salmonellosis

(ii) Viral diseases:- Viral hepatitis, Gastroenteritis and

(iii) Infections due to parasites;- Taeniasis, Amoebiasis

Module 4:-Food Laws and Food standards: 

(i) International food laws and standards: - Codex Alimentarius, Food, Drug and Cosmetic Act


(b) Voluntary Standards- Bureau of Indian Standards (BIS), The Agricultural Products (Grading and marking) Act, 1937

**Module 5: Food Adulteration and Labelling:** (4 hours)

Common Adulterants, Effects of Food Adulteration, simple tests to detect adulterants in foods, prevention of food adulteration, Nutritional Labelling.

**Related Experiences**

1. Introduction to laboratory equipment and apparatus.

2. Testing the water quality for the following parameters:
   (i) Colour (ii) odour (iii) Taste (iv) PH

3. Survey your neighboring areas and find out the commonly used class I and class II food additives.

4. Detect the common adulterants found in the following food samples using simple physical and simple laboratory chemical tests:
   (i) Chilli Powder, (ii) Coffee powder (iii) Ghee (IV) pepper corns (v) pulses (split and dehusked) (vi) Turmeric powder (vii) Milk and butter (viii) Honey

5. Find out the acidity and sugar content in Jam/squash and compare with FPO specifications

**Core Readings**


Srilakshmi B. (2008), Food Science, New Age International Publishers, New Delhi


Journal of Food Science and Technology, Association of Food Scientists and Technologists CFTRI, Mysore.

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EARLY CHILDHOOD CARE AND INTERVENTION

Course Code: HS6BO13U3

Teaching hours: 3hrs/week (Per sem: 54)

Credit: 3

Objectives:

- To know about the developmental milestones
- To Equip them to identify the developmental delay
- To aware about the tools & techniques for developmental assessment
- To become aware about the early stimulation programmes
- To equip them to deal with challenged children

Course Outline

Module 1: Developmental milestones

1. Definition,
2. Different developmental milestones of children from 0 to 6 year

Module 2: Developmental delay

1. Definition,
2. Risk factors – types.

Module 3: Developmental assessment (7 hrs).
1. Definition, purpose of assessment.
2. Assessment below two years.
3. Tools & techniques used for assessment- TDSC, DASII, DDST, DOC,
4. Neurological evaluation,
5. Assessment of visual & hearing impairment

Module 4: Early Developmental Stimulation (8 hrs).
1. Definition, aims, importance,
2. Role of parents.
3. Newborn stimulation in NICU & at Home.
4. Sensory training, early stimulation programmes,
5. Early intervention for the developmental delay.

Module 5: Pre-School programme (6 hrs)
1. Definition, principles of programme planning ,
3. Pre-school organisation- physical arrangement, equipment needed, maintenance of records, pre school personnel, home – school relationships.

Module 6: Intervention programmes for Children with challenges (10 hrs).
1. Visual & Hearing Impairment- Signs & Symptoms, Intervention programmes
2. Characteristics, identification & intervention programmes for the Gifted, Learning disabled, Autistic & Attention Deficit Hyperactivity Disorder (ADHD) children-

Related Experience

1. Observation of milestones in a child (0 to 6 Yrs) and the identification of developmental status.
2. Visit to a centre for developmental assessment OR to a Centre to know about the Intervention programmes for Gifted/ Learning disabled/ Autistic / ADHD children (Any One)
3. Organisation of an awareness programme for the community / parents/ Adolescents on any related topic.
4. Prepare visual aids on a related topic for the parents having children from 0 to 6 years.
5. Prepare a Case study report of a Gifted/ Learning disabled/ Autistic /ADHD child. (Any One).
Core Readings

- Hurlock (2008), Developmental psychology - 4th Ed.
- Hurlock (2004) , Personality development

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SURFACE ORNAMENTATION TECHNIQUES

Course Code: HS6BO13U4

Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives

- To teach the variations of basic hand embroidery techniques, surface designing and other ornamentation techniques.
- To introduce them to various traditional embroidery techniques of India.

Module1: Embroidery 2 Hours
- Embroidery tools and techniques, embroidery threads and their classification, selection of threads, needle and cloth, tracing techniques, ironing and finishing of embroidered articles.

Module2: BasicHandEmbroidery:- 5 Hours
Two variations of running stitch, back stitch, stem stitch, chain stitch ,lazy daisy stitch, buttonhole stitch, feather stitch, herringbone stitch, knot stitch, satin stitch and cross stitch.

Module3: TraditionalEmbroidery 10 Hours
- Origin, application & colours. Kantha, Chikan, Kasuti, Zardosi (Four variations), Kutch and Mirror work (Two variations).
Module 4: Special embellishment techniques: 8 Hours

Ribbon work (2 methods), Applique (2 methods), quilting (2 methods), Patch work (2 methods) Smocking - Chinese smocking (2 methods), honey comb, gathered with embroidery, Fabric painting (4 methods), hand, Stencil- dabbing and spraying.

Module 5: Dyeing and printing 4 Hours

Advanced tie and dye techniques, batik and block printing. (2 methods each)

Module 6: Trimmings and decorations 7 Hours

Laces, tassels, tucks (4 methods), show buttons, eyelet and cord, bead work, cut work and crocheting.

Related Experiences

- Basic Hand Embroidery:- Prepare samples for running stitch, back stitch, stem stitch, chain stitch, lazy daisy stitch, buttonhole stitch, feather stitch, herringbone stitch, knot stitch, satin stitch and cross stitch. (Two variations each)
- Traditional Embroidery- Prepare samples for Kantha, Chikan, Kasuti, Zardosi (Four variations), Kutch and Mirror work (Two variations).
- Special embellishment techniques:- Prepare samples for Ribbon work (2 methods), Applique (2 methods), quilting (2 methods), Patch work (2 methods) Smocking - Chinese smocking (2 methods), honey comb, gathered with embroidery, Fabric painting (4 methods), hand, Stencil- dabbing and spraying.
- Dyeing and printing:- Prepare samples for advanced tie and dye techniques, batik and block printing. (2 methods each)
- Trimmings and decorations:- Prepare samples for tassels, tucks (4 methods), eyelet and cord, bead work, cut work and crocheting.

Core Readings:

WOMEN’S STUDIES

Course Code: HS6BO13U5

Teaching hours: 3hrs/week (Per sem: 54)
Credit: 3

Objectives

- To create awareness among the students about the status of women in India.
- To sensitize the students about the problems/disparities/issues concerning women.
- To make the students acquainted with the laws pertaining to women and the services available to them.
- To motivate students to work for the betterment of women.

Module 1: Meaning and significance of women’s studies
Women’s rights.

Module 2: Demographic profile of women with reference to Health, education, employment, socio-economic and political aspects. (4 hrs)

Module 3: Special issues and problems concerning women (10 hrs)
Infanticide, foeticide, dowry, domestic violence, sexual harassment, gender discrimination, child marriage and media projection.

- Art of embroidery: History of style and technique, 1995, Lanto Synge, Woodridge
- Readers Digest, Complete guide to Sewing, 1993, Pleasant ville-Nu Gail L, Search Press Ltd.
- Barbara S, Creative Art of Embroidery, 1998 Lundon, Numbly Pub.group Ltd.
- Shailaja N, Traditional Embroideries of India., 2001 Mumbai APH Publishing
Module 4: Women in distress (8 hrs)

Problems of single, widowed, divorced women. Unmarried mothers. Problems confronting elderly women

Module 5: Women and law (5 hrs)

Need for legal literacy for women. Laws pertaining to marriage, divorce, dowry, succession and property inheritance, sexual harassment, domestic violence and abortion.

Module 6: National efforts for women empowerment (6 hrs)


Related Experience

1. Undertake a visit to any one institution that caters to women in distress and prepare a report.

Core Readings

- Women and Sustainable Development: an international dimension
- Introducing Women’s Studies Feminist theory and Practice, Edited by Diane Richardson and Victoria Robinson, Macmillan, 1993
- Empowerment of Women (in 3 volumes) Editor-Prof Meenakshi Malhotra, Isha Books, Delhi.
- Issues on empowerment of Women. Utpal Kumar De and Bholanath Ghosh, Mohit Publication, New Delhi, 2004
- 50 Key Concepts in Gender Studies Jane Pilcher and Imelda Whelehan, Sage Publications, Delhi 2004
- Dimensions of Women Exploitation Editor-Meenakshi Malhotra, Isha Books, Delhi. 2004
- Women in law and Politics Edited by Raj Kumar Pruthi, Rameshwari Devi, Romila Pruthi, Mangal Deep Publications, Jaipur, India 2001
- Status of Indian Women Crisis and Conflict in Gender Issues-Volume 2, Edited by Uma Shankar Jha,
• Arathi Mehta, Latika Menon, Kanishka Publishers, Distributors, New Delhi, 1998

• Women, Environment and Health Dhanalaxmi Dash, MAngal Deep Publications, Jaipur, 2005

• The Status Of Women in India – from Anyiquity to Modernity Edited by Manjari Biswas (Bhaumik), Abhijeet Publications, New Delhi, 2010.

Journals


2. Yojana, published by Ministry of Information and Broadcasting, Yojana Bhavan, New Delhi


4. Indian Journal of Social Development - an international journal

Serial Publication, New Delhi editor - Vijay Kumar S
SEMESTER I

METHODOLOGY OF HOME SCIENCE AND FOOD SCIENCE

Course Code: HS1BO1U

Time: 3 hours            Maximum Weightage: 25

PART A

Objective type questions, weightage 1 for each bunch of 4 questions

I. Choose the correct answer
1. Conversion of starch to simpler molecules by the effect of heat is-
   a) Gelatinisation b) Retrogradation  c) Dextrinisation d) Hydrogenation
2. Proteins are made up of
   a) Polysaccharides b) Aminoacids  c) Fatty acids d) Monosaccharides
3. Complex, heat induced browning reaction is-
   a) Maillard reaction b) Crystallisation  c) Caramelisation d) Inversion
4. The process of addition of hydrogen to the unsaturated carbon bond of fats-
   a) Hydrolysis b) Rancidity  c) Hydrogenation d) Acidity

II. Fill up the following:-
5. __________ is an example of textured vegetable protein
6. The major protein in egg yolk is __________.
7. Hydration and swelling of starch is ________
8. ________ is the limiting amino acid in rice.

III. State whether true or false.
9. The pigment present in potato is lycopene
10. Caramelisation is a property of fruits
11. A source of collecting primary data is from books.
12. The food group system has three groups.

IV. Name the following:
13. The protein formed in dough
14. The stiffness on death of an animal
15. The enzyme causing browning in cut fruits
16. Representatives of population in research

(part B)

Short answer type questions, weightage 1 each.
Answer any 5 of the following

17. Give an account of major pigments in fruits and vegetables
18. Briefly explain the nutritional significance of fish
19. Differentiate between GM foods and organic foods
20. Write a brief note on ICMR food groups
21. Give an account of the anti nutritional factors present in pulses.
22. Explain the terms questionnaire and interview schedule
23. Brief on the major areas of study in Home Science
24. Define Pasteurisation

(part C)

Short essay type questions, weight 2 each.
Answer any 4 each within one page

25. Write a brief note on rancidity of fats
26. What are the types of processed milk
27. Give a note on stages of sugar cookery
28. Enumerate advantages of observation method
29. Explain the structure of meat
30. Explain gelatinization and factors affecting it

(part D)

Essay type questions, weightage 4 each.
Answer any 2 each within three pages

31. Explain the classification based on function of proteins. Add a note on non traditional proteins, single cell proteins and textured vegetable protein.
32. Explain major types of research methods.
33. Explain the principles and methods of any 4 types of food preservation techniques.
SEMESTER 11

HUMAN PHYSIOLOGY AND MICROBIOLOGY

Course Code: HS2BO2U

Time: Three Hours

Maximum Weight: 25

Part A (Objective Type Questions)

Answer all questions

Weight of 1 each bunch

I. Choose the correct answer:

1. Innate immunity is the type:
   a) Genetic                                     b) Long term immunity
   c) Active immunity                               c) Passive immunity

2. A person may be allergic to various factors in the atmosphere. This form of hypersensitivity is known as:
   a) Berum sickness                        b) atopy
   c) Genetic disorder                        d) Contact dermatitis

3. The outermost covering of the brain is called.
   a) Dura matter                             b) Arachnoid mater
   c) Pia mater                                d) Pericardium

4. Emphysema is a condition due to:
   a) Cigarette smoking                    b) Drug addiction
   c) Liqour consumption           d) Hyperthyroidism

II. Fill up the following:

5. The destruction of the microorganism by the use of chemicals is known as

6. A common allergen

7. The secretion of the liver is known as

8. ______ supply blood to the heart wall.

III. Name the following:

9. The microorganism that helps in the ripening of cheese.

10. Name one food item which bears the identification mark of AGMARK
11. The functional unit of nervous system.
12. The excess oxygen carrying pigment in.

IV. Match the following.
13. Bacteria - Semilunar
14. Pulmonary valves - Schizomycetes
15. Food infection - Ductless
16. Endocrine gland - Typhoid

(4x1=4)

Part B (Short Answer Type Question)
Answer any five questions. Weightage 1 each

17. List the factors responsible for food spoilage.
18. Differentiate between Exotoxin and Endotoxin.
19. Enumerate the characteristics of a cultural media.
20. Write a note on bactriophages.
21. List the functions of circulatory system.
22. State the importance of bile in the process of digestion.
23. Discuss the endocrine regulation of urine formation.
24. Define the term Respiration.

(5x1=5)

Part C (Short Essay Type Questions)
Answer any four each with in one page. Weightage 2 each

25. Define sterilization. What are the different methods of sterilization?
26. Describe the role of Consumer Protection Act in safeguarding the public health.
27. What are the different methods of preventing salmonella food poisoning?
28. Describe the structure of mammalian heart.
29. Explain the functions of epithelial tissue.
30. What are the functions of liver?

(4x2=8)

Part D (Essay Type Questions)
Answer any two within three pages. Weightage 4 each.

31. Explain the food poisoning and food infection. Describe the method to prevent food borne infections.
32. Explain the process of digestion in man.
33. With the help of a neat diagram explain the parts of human brain.

(2x4=8)
Part A

Time 3 hours

Maximum weightage – 25

Objective type questions, weightage 1 for each bunch of 4 questions

1. Choose the correct answer from the given choices.

1) A method to study the popularity of the child
   a) Case study  b) Observation  c) Sociometry
   d) Interview

2) Need for approval
   a) psycho-social need
   b) intellectual need
   c) biological need
   d) egoistic need

3) Stage of Intellectual development from 2 to 7 years
   a) psycho-social need
   b) sensori-motor period
   c) pre-operational period
   d) concrete operation period
   e) formal operational period

4) Once own native constitution
   a) heredity  b) environment
   c) discipline  d) habit

2. Fill in the blanks

5) The qualitative changes occurring in a child is called .....................

6) ...................... is the period from 6 to 12 years.

7) A new born child is called .................................

8) A child who deviates positively from normal is called  .................
3. Name the following:

9) Legal separation of Marriage.
10) The founder of Montessori system of Education
11) The attachment of newly formed cell to the uterine wall.
12) Type of play where the child is playing alone.

4. State whether the following statements are True or False.

13) Development is not predictable
14) Toxemia is the absence of toxins in the blood.
15) Tubular pregnancy is a hazard during pregnancy
16) Sucking thumb is a behaviour problem.

Part – B

Short answer type questions, weightage 1 each.
Answer any 5 of the following

17) What are the adjustments of a new born child?
18) What is amniocentesis?
19) List any four crisis in today’s family?
20) Explain the moral development of a preschooler?
21) Give four values of play?
22) What is observation?
23) Define Counselling?
24) What do you mean by responsible parenthood?

Part – C

Short essay type questions, weight 2 each.
Answer any 4 each within one page

25) Bring out the problems of today’s adolescents
26) Explain pre-operational stage?
27) Briefly explain the language development of an infant?
28) How are children with special needs classified?
29) List out the problems of single parents?
30) Write the immunization schedule in infancy?

**Part – D**

*Essay type questions, weightage 4 each.*
*Answer any 2 each within three pages*

31) Effect of maternal employment on development of children?
32) Define Pre-school? What are the aims and objectives of preschool education?
33) What are the different disciplinary techniques and its effect on children?

**SEMMESTER IV**

**GENERAL PSYCHOLOGY**

Course Code: HS4BO4U

**Part A**

Time 3 hours Maximum weightage – 25

*Objective type questions, weightage 1 for each bunch of 4 questions*

**I. Choose the correct answer from the given choices.**

1) Cognitive Psychology is the study of
   a) Emotions b) Academic interest c) Society
   d) Intelligence

2) Children who watch a great deal of televised violence are more prone to be aggressive, an effect that is best explained by
   a) negative reinforcement
   b) shaping and successive approximations
   c) observational learning
   d) vicarious classical conditioning

3) In the “nature – nurture” debate, the term nature primarily refers to
   a) environment b) prenatal teratogenes
   c) existence of sensitive periods d) heredity
4) The endocrine gland that most influences the activities of other glands is the
   a) pituitary   b) adrenal
   c) pineal   d) thyroid

2. Fill in the blanks

5) Psychology is the…………………………….of…………………...and mental processes.

6) Three major divisions of the brain are the brainstem or……………………
   the…………………………………….and the …………………….

7) Negative reinforcement……………………………….responding.

8) The highest level of achievement according to Maslow is………………

3. Name the following:

9) The light sensitive layer of cells at the back of the eye.

10) Recovering information from storage in memory.

11) The father of Psychology.

12) Internal processes that initiate, sustain and direct activities.

4. State whether the following statements are True or False.

13) Far sightedness (hyperopia) is the difficulty in seeing nearby objects.

14) The pituitary is directed by the thalamus.

15) An undesirable response can be suppressed by associating it with aversive stimuli.

16) Perception is not affected by expectations, motives or emotions.

Part – B

Short answer type questions, weightage 1 each.
Answer any 5 of the following

17) What is sensory memory?

18) Which are the four lobes of the cerebral cortex ?

19) Where is the adrenal gland located ? List any 3 functions of the adrenal gland.

20) Name any four visual problems.

21) Define Motivation?

22) List any four memory techniques.
23) Explain the curve of forgetting?

24) What are the uses of Perception?

Part – C

Short essay type questions, weight 2 each.
Answer any 4 each within one page

25) Explain classical conditioning citing Pavlovian experiment?

26) Explain what is meant by short term and long term memory?

27) Explain the structure of a neuron with the help of a diagram?

28) Define Attention span and what are the factors affecting attention?

29) What are emotions? Explain the nature of Emotions?

30) Explain the perceptual constancies?

Part – D

Essay type questions, weightage 4 each.
Answer any 2 each within three pages

31) Describe Maslow’s theory of motivation?

32) What is Personality? What are the different types of Personality?

33) Briefly explain the traditional senses?
SEMESTER V

INTERIOR DECORATION

Course Code: HS5BO5U

Time-3 hrs

Maximum Weightage-25

Part A

Objective type questions, weightage 1 for each bunch of 4 questions

I. Choose the correct answer from the given choices

1. --------- refers to the lightness or darkness of a colour.
   (Hue, Value, Intensity)
2. Japanese flower arrangement is commonly known as.
   (Ikebana, Moribana, Hogarth)
3. ------ principle of interior decoration is known as “law of relationship”
   (Proportion, Harmony, Balance)
4. ------- is the tactile surface quality of an object.
   (Texture, Emphasis, Rhythm)

II. Fill in the blanks:
5. The 3 centres of activity in a kitchen joined together to form --------------
6. Combination of green and red is known as---------- colour harmony.
7. The art of growing plants in shallow containers is known as-------------
8. ---------- refers to the brightness/ dullness of colour.

III. True / False:
9. Emphasis is the principle of design which helps to create a centre of interest in any arrangement. (True / False)
10. Freeze drying is a technique of drying flowers. (True / False)
11. Blue and green are called warm colours. (True / False)
12. Line is the basic element of design. (True / False)
IV. Match the following:
13. Soe - Man
14. Hikae - Flower arrangement
15. Bonsai - Earth
16. Ikebana - Growing plants

Part B

Short answer type questions, weightage 1 each.
Answer any 5 of the following

17. Work triangle.
19. Enumerate the guidelines for selecting furniture.
20. Primary colours.
21. Define flower arrangement
22. What are accessories?
23. Give notes on decorative designs
24. What is indoor gardening?

Part C

Short essay type questions, weight 2 each.
Answer any 4 each within one page

25. Explain the different working areas in a kitchen.
26. Write the styles in gardening.
27. Qualities of colour.
28. Explain the factors considered while selecting soft furnishings.
29. Explain the harmony of related colours.
30. Write a note on principle of rhythm in decoration.

Part D

Essay type questions, weightage 4 each.
Answer any 2 each within three pages

31. Explain the different styles and shapes in flower arrangement.
32. Write on the different curtain styles?
33. Write an essay on different flower drying techniques?
PART A
Answer all questions.
Each bunch of four questions carries a weight of 1.

I. Fill up the following:-

1. Calcium requirement during lactation is ____________.
2. Sunlight is a good source of ____________.
3. Fish is a good source of ____________fatty acids.
4. Type of diabetes that occurs in pregnant women _____________.

II. Name the following:-

5. Excessive intake of fluorine.
6. Rise in blood sugar as a result of intake of foods.
7. The condition due to the deficiency of riboflavin.
8. Condition in which water is retained in the body.

III. Choose the most appropriate word:

9. An antioxidant nutrient :
   a. Vitamin A                               b. Vitamin B
   c. Vitamin C                               d. Vitamin D

10. Of the following an essential amino acid is:
      a. Leucine                                b. Alanine
      c. Serine                                 d. Histidin

11. In the case of athletes the hyponatremia is associated with :
      a. Sodium loss in sweat             b. potassium loss in sweat
      b. Water loss                      d. Alcohol formation.

12. Goitre can result due to the deficiency of :
      a. Calcium                                b. Iodine
      c. Protein                               d. Zinc

IV. Match the following:-

13. Lathyrism                     - Thiamine
14. Histones                      - Water balance
15. Beri-beri                     - Pulses
16. Oedema                        - Protein

(4×1=4)
PART B (Short Answer Type)

Answer any five. Each carries a weightage of one.

17. What is Glycemic Index?
18. State the functions of Vitamin D.
19. Explain rancidity of fat.
20. How are proteins classified?
21. Write down the symptoms of pellagra.
22. What are the physiological changes that take place in old age?
23. Enlist the basic food groups.
24. What are the factors affecting RDA?

(5×1=5)

PART C (Short Essay Type)

Answer any four. Each carries a weightage of two.

25. Explain specific dynamic action of food.
26. What are the uses and types of dietary fibre?
27. Discuss the Indian Nutrition scenario.
28. Explain BMR. State the factors influencing BMR.
29. Write down the principles involved in meal planning.
30. Suggest a balanced packed lunch for a pre-school child and comment on its nutritional adequacy.

(4×2=8)

PART D (Essay)

Answer any two. Each carries a weightage of four.

31. Discuss iron under:
   a. Function;
   b. Sources;
   b. Recommended allowances;
   d. Deficiency.

32. Emphasise on the importance of enhanced nutritive requirement during pregnancy. Plan a day’s menu for a pregnant woman and evaluate its nutritive adequacy.

(2×4=8)
TEXTILE SCIENCE

Course Code: HS5BO7U

Time –3 hrs

Max weightage-25

Part A

Objective type questions, weightage 1 for each bunch of 4 questions

1. Choose the correct answer from the given choices

1. Animal fibres are known as
   (A). Protein fiber. (B) Synthetic fiber. (C) Cellulosic fiber.

2. The spiral arrangement of the yarn is
   (A) Grain. (B) Count. (C) Twist

3. The following weave structure has the lowest float length.
   (A) Twill. (B) Plain. (C) Satin.

4. Which one is resist print among following?
   (A) Block. (B) Batik. (C) Discharge

2. Fill in the blanks:

5. Fancy yarns are famous for -----------------

6. The horizontal loops are called------------------- in knitting.

7. Direct dye is primarily used on ------------------fibres.

8. Thousands of the filaments are grouped to form a thick rope called----------------

9. Asbestos is a pliable fiber. (True / false).

10. Viscose rayon is made by wet spinning (True / false).

11. Single yarn is the product of first twisting operation. (True / false).
12. Cotton is strong when it is wet. (True / false).

IV. Match the following:

14. Discharge prints - Dobby
15. Fancy weaves - Degumming.

---

Part B

Short answer type questions, weightage 1 each.

Answer any 5 of the following

17. Name the stages of dyeing.
18. Write briefly on different types of selvedges.
19. List out the major operations in weaving.
20. What is balance of cloth?
21. Give notes on bonding.
22. Write notes on textured yarn.
23. Differentiate staple from filament fibre.

---

Part C

Short essay type questions, weight 2 each.

Answer any 4 each within one page

25. State the physical properties of silk?
26. Give the classification of yarns?
27. Explain pile weave.
28. What is calendaring.
29. Give an account on natural dyes.
30. Write briefly on Knitting
Part D

*Essay type questions, weightage 4 each.
Answer any 2 each within three pages*

31. Explain basic weaves with the help of illustration?

32. Write an essay on different printing techniques?

33. What are finishes? Write on basic finishes given to cotton fabrics?

**DYNAMICS OF EXTENSION**

Course Code: HS5BO8U

Time –3 hrs                                                                                 Max weightage-25

**Part A**

*Objective type questions, weightage 1 for each bunch of 4 questions*

I. **Choose the correct answer from the given choices**

1. For bringing attitudinal changes in adults, the most suitable method is
   (a) Group meetings (b) Role play (c) Home visits (d) Method demonstrations.

2. A method to identify community leader.
   (a)Interview   (b) Written test (c) Group discussion (d) Lottery method.

3. A community organization for economic development
   (a)Panchayat (b) School (c)Co-operatives (d) Youth clubs.

4. A programme which give priority to the development of children below 6 years.
   (a)DWCRA (b) ICDS (c) Indira mahila yojana (d) IRDP

2. Fill in the blanks.

1. --------------------------------------is an out of school system of education.

2. The process of comparing the results of activities with the original objective is--------
3. ------------------------------has the responsibility of speaking for the group.

4. An instructional device in which the message can be heard as well as seen is known as --------------------------.

3. Name the following.

1. A single printed sheet of paper of small size, containing preliminary information relating to a topic.

2. An experience which is the unabridged version of life itself.

3. Community which is in close and direct relationship to nature.

4. A Plan of work arranged chronologically.

4. Match the Following.

1. Group motivator                                      (a) Group method

2. Organisation for community development             (b) Quality of an extension worker.

3. Ideas of different people can be pooled together   (c) Visual aid.

4. Flip chart                                          (d) Panchayats

---

**Part B**

*Short answer type questions, weightage 1 each.*

*Answer any 5 of the following*

1. What are the steps in extension teaching?

2. Why motivation is important in an extension work?

3. What is the significance of DWCRA as a programme for development of women and children?


5. Differentiate between Flash cards and Flannel graphs.

6. Write a note on the cone of experience.
7. Analysis of the situation is necessary before deciding the objectives. Why?
8. What is the role of Home Science extension in community development?

Part C

Short essay type questions, weight 2 each.
Answer any 4 each within one page

1. What are the qualities required for an extension worker?
2. Discuss the points to be remembered while making a home visit in extension.
3. What are the different types of community leaders?
4. Enumerate the role of schools in community development.
5. Explain the significance of satellite communication.
6. What are the principles involved in programme planning?

Part D

Essay type questions, weightage 4 each.
Answer any 2 each within three pages

1. How will you conduct an Extension programme in a community?
2. Discuss briefly the various methods of approaching people.
3. What are the characteristics and problems of urban communities in India?
OPEN COURSE

INTERIOR DECORATION AND RELATED ARTS
HS5DO1U1

Time: 3 hours                  Maximum Weightage: 25

PART A

Objective type questions, weightage 1 for each bunch of 4 questions

Choose the correct answer
1. A state of equality in any composition or arrangement.
   (a) Harmony (b) Rhythm (c) Unity (d) Balance
2. The beginning point of any design
   (a) Form (b) Shape (d) Line (d) Pattern
3. Attribute which recognize and describe a colour.
   (a) Dimension (b) Hue (c)Intensity (d)Quality
4. Short curtains that hang in layers to cover portion of a window
   (a) Valences (b) Cafe curtains (c) Swags (D) Ruffles

Fill in the blanks

5. Equidistant colours in the prang’s colour chart are called---------------
6. A ------------------ represents the tension that exists between two points.
7. _________is an inherent visual property of all forms.
8. __________evenly illuminates the horizontal surface below.

Name the following

9. Doing unconsciously’ the right thing at the right time in the right way.
10. Surface enrichment of a structural design
11. Man made expression of something beautiful.
12. A wall to wall floor covering.

Say whether the following statements are True or False

13. Green is a primary colour.
14. Mirrors are used as accessories in interiors.
15. Rhythm refers to the unity of expression in a design
16. A line is used to divide space and create movement. (4 x 1 =4)

Part- B

Short answer type question weightage 1 each

Answer any 5 of the following

17. Mention the objectives of interior decoration.
18. List down some of the accessories for modern interiors.
19. What are the different types of lighting?
20. What is a design? What are the different types?
21. Write notes on value of a colour.
22. Give an account on gathered valence.
23. Explain the different types of triangular flower arrangement.
24. Briefly explain dual purpose furniture. \( (5 \times 1 = 5) \)

Part-C

**Short essay type questions. weightage 2 each**

*Answer any four, each with in one page*

25. What is the importance of good taste in interior decoration?
26. Give an account of basic hand stitches.
27. What all factors will you consider while selecting and arranging furniture for your drawing room?
28. How can you bring about unity in a design?
29. Give an account of different types of light fixtures.
30. How will select plants for indoor gardening? \( (4 \times 2 = 8) \)

Part-D

**Essay type questions, Weightage 4 each**

*Answer any two questions ;each with in three pages*

31. What are factors to be considered while planning a house? Give an account of the different symbols used in drawing house plans.
32. Enumerate the various art principles with suitable illustrations
33. Illustrate different curtain styles. Suggest a curtain style for an adolescent girl’s bedroom.

\( (2 \times 4 = 8) \)

LIFE SKILL STRATEGIES AND TECHNIQUES

**HS5DO1U2**

**Time**: 3 hours **Maximum Weightage**: 25

**Section A**

**Objective type questions, weightage 1 for each bunch of 4 questions**

1. Fill in the blanks
1. The prevalence of anaemia is detected by ----------------------in the blood.
2. Sound becomes hazardous noise pollution at decibels above------------------.
3. Onset of menstruation is called----------------.
4. The study of the environment is termed -----------------------.

2. Name the following
5. An enzymatic byproduct of vermicomposting.
6. Condition resulting from imbalance between energy intake and expenditure.
7. Inability to perform or continue work due to previous exertion.
8. Scientist who classified the five levels of change influencing character of work.

3. Choose the correct answer from the given choices

9. The best method of managing organic waste is by
   a. composting  b. burning  c. incineration  d. sanitary land fill

10. A plan for spending and saving within a given income for a definite period is called
    a. balance sheet  b. budget  c. ledger  d. record keeping

11. Bioavailability of iron in the diet of adolescents can be enhanced if the following nutrient is added along with an iron rich source
    a. vitamin C  b. sodium  c. calcium  d. fat

12. The psychologist who referred to adolescence as ‘a period of storm and stress‘

State whether the following statements are True or False

13. An example of a sexually transmitted disease is HIV
14. Anorexia nervosa in adolescents is characterized by self induced starvation
15. CFC can lead to ozone depletion
16. The feeling of satisfaction which a person derives after the use of goods and services is his real income

Section B
Answer any 5 questions
Each answer carries a weightage of 1
(5x1 =5)

17. Define the 3 R’s of waste management.
18. List any four dietary guidelines for an adolescent with the help of a food guide pyramid.
19. List any four common characteristics of resources.
20. What are the essential components of a communication system?
21. How can the principle of harmony be achieved in individual clothing? Give 4 examples
22. What are the steps in decision making?
23. List any four symptoms of stress.
24. Briefly explain any four crises that affect the family.

Section C
Answer any 4 questions
Each answer carries a weightage of 2
(4x2= 8)

25. Comment on the significance of rain water harvesting at household level
26. Write four adverse effects of substance abuse on adolescent health
27. List any four developmental tasks of adolescents
28. Elaborate on the types of income and suggest three ways through which it can be supplemented
29. Justify the increased nutritional requirements during adolescents
30. Discuss anorexia nervosa and bulimia with specific reference to adolescents
Section D

Answer any two questions
Each answer carries a weightage of 4
(2x4= 8)

31. Explain the physiological aspects of growth and development during adolescence.
32. Briefly explain four positive and four negative influences of media on adolescents.
33. List any four rights of consumers. Write short notes on:
   i. ISI
   ii. Agmark
   iii. FPO
   iv. Ecomark

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HS5DOIU3 - NUTRITION FOR WELLNESS

Time: 3 hours     Maximum Weightage: 25

PART A

Objective type questions, weightage  1 for each bunch of 4 questions

I. Choose the correct answer
   1. Which vitamin is essential for proper iron absorption?
      a) Vit A                              b) Vit C
      c) Vit D                              d) Vit B
   2. Total energy contributed by 10g of fat
      a) 10 Kcal                           b) 19 Kcal
      c) 90 Kcal                           d) 100 Kcal
   3. The micronutrient in colostrum that promotes normal growth and brain development
      a) Iron                          b) Iodine
      c) Zinc                          d) Chlorine
   4. The daily Protein requirement for a pregnant woman is:
      a) 45 g                                  b) 50g
      c) 60g                                       d) 65g

II. Fill up the following:-
   5. ___________ present in fishes reduces the risk of Cardio Vascular Diseases.

   6. Excessive consumption of Kesari dhal causes ____________.

   7. The causative organism for tuberculosis is ________

   8. ________ is the limiting amino acid in rice.

III. State whether true or false.
   9. Adolescence is a period of rapid growth and development.
   10. Health is a condition of mere absence of diseases.
   11. The digestion of polysaccharides begins in the mouth.
   12. Vitamin C is not an antioxidant.
IV. Match the following:-
13. Beriberi                Obesity
14. Garlic                Sucrose
15. BMI                  Thiamine
16. Sugar                Cholesterol

(4 x 1 = 4)

PART B
Short answer type questions, weightage 1 each.
Answer any 5 of the following
17. Give an account of the symptoms of glomerulo nephritis.
19. Differentiate between gynecoid and android obesity.
20. Write a brief note on ICMR food groups and its importance in effective menu planning.
21. Give an account of the anti nutritional factors present in pulses.
22. Differentiate between bulimia nervosa and anorexia nervosa.
23. Explain the role of protein in our body and its sources.
24. What is a balanced diet and explain its importance.     (5 x 1 =5)

PART C
Short essay type questions, weight 2 each.
Answer any 4 each within one page
25. Write a brief note on digestion of carbohydrates.
26. What are the dietary modifications required during old age?
27. Discuss the causes and preventive measures of anaemia.
28. Explain the importance of diet therapy in hyper tension
29. Explain the direct methods of assessment of nutritional status.
30. Explain the role of functional foods

(4 x 2 =8)

PART D
Essay type questions, weightage 4 each.
Answer any 2 each within three pages
31. Write an essay on the causes, symptoms and dietary modifications needed in the management of diabetes mellitus.

32. Explain the nutritional requirements and plan a day’s menu for an adolescent girl.

33. Write on the sources, functions, RDA, deficiency, prevention and treatment of vitamin A.

(2 x 4 =8)
HS5DOIU4 - SELF EMPOWERMENT SKILLS

Time: 3 hours     Maximum Weightage: 25

PART A

Objective type questions, weightage 1 for each bunch of 4 questions

Choose the correct answer from the given choices.

1) Self respect is an
   a) Attitude to self    b) Attitude to life
   c) Attitude to others  d) Attitude to work

2) Voice cultivation comes in
   a) Effective speaking  b) Intelligent listening
   c) Facing interview   d) Friendliness

3) Judgment is a
   a) Social skill       b) Language skill
   c) Intellectual skill  d) Life skill

4) Be Enthusiastic is a step to attain
   a) Success           b) Self esteem
   c) Right attitude    d) Positive personality

Fill in the blanks

5) The ability to respond to a need................................. .
6) .................. is the hallmark of a genuine person
7) The ability to recall is called ......................
8) .................. is as important as getting

Name the following:

9) The foundation of success
10) People with good values, character, integrity and positive values.
11) Sum total of person’s values, beliefs and personality
12) The biggest hurdle in building a positive relationship.

State whether the following statements are True or False.

13) A winner makes commitments
14) Rhythm is an element of design
15) Orange is a primary colour
16) Turn Scars in to stars is a step to build positive self esteem.  (4 x 1 =4)
Part – B

Short answer type questions, weightage 1 each.
Answer any 5 of the following

17) Name any four areas of marital adjustment
18) Write four contrast colour harmonies
19) Name four types of flower arrangement
20) Name four social skills.
21) Mention four techniques of food preservation
22) List four memory techniques.
23) List four Steps in management process
24) Write four causes for fatigue?

(5 x 1 =5)

Part – C

Short essay type questions, weight 2 each.
Answer any 4 each within one page

25) Principles in meal planning
26) Bring out the values to cherish in life.
27) Different techniques in stress management.
28) Qualities of a successful person
29) Explain the different types of resources with examples
30) Steps in budget making.

(4 x 2 =8)

Part – D

Essay type questions, weightage 4 each.
Answer any 2 each within three pages

31) Describe different work simplification methods
32) Explain how you can make wealth from waste
33) Tips to build a positive personality

(2 x 4 =8)

***********************
Part A

Objective type questions, weightage 1 for each bunch of 4 questions

Fill up the following:-
1. A typical work curve is described as -----------------. 
2. ------------------is the computation of the assets and indebtedness of a firm.
3. ------------------is the commonsense approach to make work easier.
4. The worth attached to object, idea or condition------------------.

II. Name the following.
5. Tools for attaining family goals?
6. Agency responsible for issuing ISI mark?
7. The scientist who suggested changes in work process for its effectiveness?
8. Discontent, restlessness, desire to quit are the signs of this?

III. Choose the correct answer.
9. FPO stands for -------------------------------
   (A) Fruit Products Order (B) Food Products Order (C) Fruit Processing Organization (D) Fruit Products Organization
10. According to Engel’s law of consumption, as the income increases the proportion of Income spend on food:-
    (A) Decreases (B) Increases (C) Increase or Decrease (D) Remains constant
11. Commodities and facilities which are available to the family without the use of money:-
    (A) Real income (B) Family income (C) Psychic income (D) Real direct income
12. The complete review of a plan of action
    (A) Organizing (B) Evaluation (C) Planning (D) Implementation

IV. Match the Following.
13. Resources - Time
14. Crux of management - Knowledge of peak loads
15. Human resource - Decision making
16. Time management – Limited

Part B

Short answer type questions. Weight age 1 each. Answer any 5 of the following.
17. Time norm and time cost.
18. What is decision making?
19. Mention different ways of account keeping.
20. Define work simplification.
21. Enlist the various stages and sub stages of family life cycle
22. Which are the major phases of controlling during management process?
23. What do you mean by family income?
24. Mention different saving schemes for a middle class family.  

**Part C**  
*Short essay type questions, Weight age 2 each. Answer any 4 within one page*  
25. Give an account of family records.  
26. What are the characteristics of resources?  
27. How will you make a successful decision?  
28. Suggest different techniques to avoid fatigue.  
29. Discuss the problems faced by consumer in today's world.  
30. What are your suggestions for environment friendly domestic waste disposal?  

**Part D**  
*Essay type question, weight age 4 each. Answer any two each within three pages.*  
31. Define management. Discuss the steps involved in the process of Management.  
32. Discuss the various classes of change which can be adopted by a homemaker for the scientific management of energy.  
33. What is family budget? What are the factors which affect family expenditure, and discuss the steps considered while making a family budget?  

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**CLINICAL NUTRITION AND DIETETICS**  

**HS6BO10U**  

*Time : 3 hrs Max weightage-25*  

**Section A**  
*Objective type questions, weightage 1 for each bunch of 4 questions*  

**I. Choose the correct answer:**  
1. The form of blood cholesterol associated with an increased risk of atherosclerosis is:  
   (A) triglycerides  
   (B) Chylomicrons  
   (C) LDL cholesterol  
   (D) HDL cholesterol  
2. Type I Diabetes Mellitus that occurs due to the insufficient production of  
   • Glucagon  
   (B) Insulin  
   (C) Aldosterone  
   (D) Cortisol  
3. Goiter is a deficiency disease of  
   • Iodine  
   (B) Selenium  
   (C) Manganese  
   (D) Zinc  
4. Pallor of skin is a symptom of deficiency of:  
   (A) Iron  
   (B) Thiamine  
   (C) Calcium  
   (D) Niacin  

**II. Fill in the blanks:**  
34. --------- is the causative organism of tuberculosis  
35. The normal systolic pressure of an adult male is ------
36. ------is a ranking of foods based on the postprandial blood glucose response.
37. ------is the chief cause of ulcer.

III. Match the following
9. Typhoid - Oedema
10. Alcoholism - Peyer’s patches
11. Kwashiorkor - Vitamin Adeficiency
12. Night blindness - Liver cirrhosis

IV. True or False
13. A high protein diet is advised in dietary management of glomerulo nephritis
14. The lack of adequate fibre in the diet is a cause of constipation
15. High Density Lipoproteins are otherwise called bad cholesterol
16. Dietary protein is restricted in persons with high blood urea and oliguria.

Part B
Short answer type questions, weight 1 each.
Answer any 5 of the following
17. List out the clinical symptoms of Iron deficiency Anaemia
18. What is an HIV infection?
19. Brief on total parenteral nutrition
20. What are the risk factors of cancer?
21. Write a brief note on peptic ulcer
22. Enumerate the clinical manifestations of Vitamin A deficiency
23. Define malnutrition and state its consequences.
24. What is the role of a dietician in the community?

Part C
Short essay type questions, weight 2 each
Answer any 4 each within one page
25. Explain the different types of Routine Hospital Diets?
26. Brief on the dietary management of tuberculosis
27. Give a brief account of common renal disorders?
28. Write on the causes of protein energy malnutrition.
29. Explain the phases in the occurrence of liver cirrhosis?
30. State the nutritional requirements for cancer patients
Part D

Essay type questions, weight 4 each.
Answer any two each within three pages

31. Write an essay describing the symptoms and management of type II Diabetes Mellitus
32. Plan a day's meal for a patient suffering from cardiovascular disease and comment on the diet therapy.
33. Enumerate the possible risk factors and complications of obesity and overweight.

(2x4=8)

FASHION DESIGNING AND APPAREL PRODUCTION

HS6BO11U

Time: 3 hrs Max weightage-25

Part A

Objective type questions, weightage 1 for each bunch of 4 questions

Objective type questions. Weight1 for each bunch
I. Choose the correct answer from the brackets
1. Cool colours are for---------------
   (a. summer, b.winter, c.spring, d. autumn)
2. The cost of the product at the introduction of a new style is---------
   (a. Medium, b high, c. low, d. very high)
3. --------- is the embellishment of any material with design done by needle work.
   (a. Printing, b. chintz, c. embroidery, d. knotting)
4. -------------- is a method of placing the pattern on fabric in the most economical manner to minimize the length of fabric.
   (a. marking, b. lay out, c. finishing, d. drafting)

II. Fill in the blanks.
5. French seam is suitable for----------
6. A decorative and functional feature on the neckline of a garment that encircles the neck is---------
7. Shape, form or the overall outline of any dress is called---------
8. Look feel and esthetic appeal of any material is---------

III. Match the following.
9. Fashion - short life
10. Fad - 'Facere'
11. Classic - a look
12. Style - extended life

IV. True or false
13. Vertical lines make a short person look tall.
14. Warm and bright colours makes things look larger in size.
15. Making the pattern on paper using actual measurement is called drafting.
16. Organdy is suitable for stitching garments for stout person.

**Part B**

**Short answer type questions. Weight 1 each. Answer any 5 out of the following.**

17. Write a note on fashion forecasting.
18. Enumerate the role of a merchandiser.
19. Give the guidelines for taking body measurements.
20. List out the points to be remembered while designing garments for a thin person.
21. Write on fashion trends.
22. What is rhythm?
23. List out the marking tools used in garment construction.
24. Give an account on different pattern layouts.

**Part C**

**Short essay type questions, weight 2 each. Answer any 4 each within one page**

25. Describe Fashion cycle.
26. Give the guidelines for taking body measurements.
27. Write on present fashion trends in Kerala.
28. Briefly explain the parts of a sewing machine.
29. Write the steps in preparing fabric for garment construction.
30. What is marketing? Write about the 4P’s in marketing.

**Part D**

**Essay type questions, weight 4 each. Answer any two each within three pages**

31. What is line? Discuss its types, functions and characteristics in apparel designing.
32. Write an essay on social, cultural and economic factors affecting fashion.
33. Discuss 8 head theory with illustration.

**MASS COMMUNICATION AND JOURNALISM**

**HS6BO12U**

Time –3 hrs 
Max weightage-25

**Part A**

**Objective type questions, weightage 1 for each bunch of 4 questions**

I. Fill up the following.

1. """"is the process by which messages are transferred from a source to receiver."""
2. A ----------- audience is characterized by many differences among individuals.

3. --------------is the network of networks.

4. Journalists working on the internet has been referred to as--------------------------

II.Name the following.

5. A creative task that has to be tailor made for each communication function.

6. A systematic display of models, specimens, charts etc. in a sequence around a theme to create awareness and interest

7. The ABC’s of good writing.

8. A journalism that covers many aspects of human athletic competition.

III. Choose the correct answer.

9. Communicates with an aggregate of small number of people.
   (a) Individual method (b) Group method (c) Mass method

10. Physical bridges between the sender and the receiver of the message.
    (a) Treatment  (b) Audience  (c) channel  (d) Audience response.

11. A single printed sheet of paper of big size folded twice or thrice.
    (a) Leaflet (b) Folder (c) Pamphlet (d) Bulletin.

12. When you conclude a speech you should
    (a) Reiterate your main ideas                  (b) relate the topic to the audience.
    (c) Leave with something memorable (d) all the above.

IV. Match the Following.

13. Written material of current interest                  -         relate the subject matter

14. To arouse the audience interest personally      -          Journalism

15. Communication model                                     -          transition.

16. Statement connecting one thought to another   -         SMCR                    (4x1=4)

Part B

**Short answer type questions. Weightage 1 each. Answer any 5 out of the following.**

17. What do you understand by the term communication?

18. Differentiate between e-mail and blogs.
19. Write briefly on the significance of video conferencing.

20. How will you write a short news article in a newspaper?

21. Factors to be considered while presenting a public speech.

22. Write a short note on the different kinds of journalism.

23. Understanding the audience is very important before giving a public speech. Why?

24. What is editing? (5x1=5)

**Part C**

*Short essay type questions, Weightage 2 each. Answer any 4 each within one page*

25. List the advantages and limitations of mass communication.

26. What are the principles of script writing for radio?

27. What are the characteristics of photo journalism?

28. Why a story board, a significant element in advertisement script writing?

29. Write briefly on podcast.

30. What is the role of folk media in communication? (4x2=8)

**Part D**

*Essay type questions, weightage 4 each. Answer any two each within three pages.*

31. Discuss the elements of communication in relation to teaching learning process.

32. Explain the role of information technology in communication.

33. What are the techniques involved in the preparation of effective advertisements? (2x4=8)
ELECTIVES

HS6BO13U1 - INTRODUCTION TO INDUSTRIAL APPAREL MANUFACTURING TECHNIQUES

Time: 3 Hours
Weightage: 25

Section-A
Answer all questions

I) Choose the correct answer
1. Which among the following provides functional protection and/or aesthetic appeal.
   a) Packaging  b) cutting  c) pattern making  d) ironing
2. The individual part of a garment that is shaped by hard paper is:
   a) Sample  b) pattern  c) grading  d) marker
3. The process by which the fabrics can cut as per marker dimension with the help of knife:
   a) Finishing b) designing c) Cutting d) none
4. Trim edge machine is known as:
   a) Bar tack b) Over lock c) button sewer d) lock stitch

II. Fill up the following:
5. The naps of alternating piles face towards the opposite ends of the ply is -------
6. Slack spread is due to ----------- in spreading
7. Design one way spread is used on-------- fabrics.
8. Static electricity is formed due to -----------.

III. State whether True or False:
9. Removal of projecting fibres reduces the hairiness of the spun thread.
10. The surface characteristics of the spun thread ensures a good “lock’ of the thread in the stitch configuration.
11. The denier system is used for multi filament sewing threads
12. The feed- dog pushes the bottom layer forward.

IV. Match the following:
13. Edge finishing - Sewing thread
14. Button - Ply
15. Nap eitherway - Button stitching
16. Yarn - Overlock

Part B
Short answer type questions, weight 1 each.

17. What is pressing?
18. Advantages of die cutter?
19. What is the use of a drill machine?
20. What are welded seams?
21. What is a cord?
22. What are the marking points to be indicated on pattern?
23. What is nap one way?
24. List any 4 items needed for drafting. (5×1=5)

**Part C**

**Short essay type questions, weight 2 each**

**Answer any 4 each within one page**

25. What are the functions of an overlocking machine?
26. What faults to be inspected during the process of ironing and pressing?
27. Describe industrial pressing of a trouser?
28. What are the Principles of Pattern Making?
29. Describe the draping method.
30. What are the working principles of Straight Knife as Cutting Accessory?

(4×2=8)

**Part D**

**Essay type questions, weight 4 each.**

**Answer any two each within three pages**

31. Explain the requirements of fusing and properties of fused laminate?
32. Explain two stitches and two seams used in garment industry.
33. What is Die cutting? Explain, (2×4=8)

**FOOD QUALITY ASSURANCE**

**HS6BO13U2**

Time: 3 hrs

Max weightage-25

**Part A**

**Objective type questions, weightage 1 for each bunch of 4 questions**

1. Choose the correct answer:
   1. The food additive, Lecithin comes under:
      (A) Antioxidants  (B) Emulsifiers
      (C) Leavening agents  (D) Preservatives

2. Fungus which produces aflatoxin
   (A) Claviceps purpurea  (B) Aspergillus flavus
   (C) Penicillium islandicum  (D) Fusarium sporotrichiodes
3. Which among the following is not a naturally occurring toxicant in food?
   (A) Goitrogens  
   (B) Benzopyrines  
   (C) Saponins  
   (D) Cyanogens

4. Which of the following is the adulterant in honey?
   (A) Chicory  
   (B) Molasses  
   (C) Argemone oil  
   (D) Starch

II. Name the following:
   5. The causative organism of Botulism
   6. Substances used to prevent oxidation of fats by molecular oxygen
   7. Major tool for achieving food safety
   8. Instrument used to find out the specific gravity of milk

III. Match the following:
   9. Flavour enhancer - PFA
   10. Preservative - Propyl gallate
   11. Antioxidant - Sodium nitrite
   12. Food safety Act - Monosodium glutamate

IV. State whether True or False:
   13. All food-borne illness can be prevented.
   14. Typhoid is not a food-borne infection
   15. Additives are used to maintain or improve the quality of food
   16. The Meat Products Order is not a compulsory standard.

Part B
Short answer type questions, weight 1 each.
Answer any 5 of the following

17. Define food quality assurance.
18. What is Codex Alimentarius?
20. List four general types of potential hazards that are associated with food.
21. What are chelating agents? Give two examples.
22. List any 4 chemical toxicants of external origin.
23. Define food additives.
24. What is potable water? List the sources of contamination of water.
Part C

Short essay type questions, weight 2 each
Answer any 4 each within one page

25. Bring out the importance of HACCP
26. What is the importance of nutrition labelling to the consumer and manufacturer?
27. What are the causes and symptoms of Lathyrism?
28. What are BIS standards?. How are they useful to us?
29. Differentiate between food poisoning and food infection.
30. What are pesticides? How are they classified? (4x2=8)

Part D

Essay type questions, weight 4 each.
Answer any two each within three pages

31. What are the different food additives used in food industry? Explain.
32. Explain the naturally occurring toxicants in foods. How can it be reduced?
33. Define food adulteration. Explain the different types of adulteration. (2x4=8)

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EARLY CHILDHOOD CARE AND INTERVENTION
HS6BO13U3

Time: 3 hrs                                                                         Max weightage-25

Part A

Objective type questions, weightage 1 for each bunch of 4 questions

I. Choose the correct answer

1. The children can reach out for objects at .
   (A) 6 months (B) At birth (C) 2 weeks (D) 3 months

2. A biological risk
   (A) X - Rays (B) Hypoglycaemia (C) Maternal diseases (D) drugs
3. Obtaining information about the skills of an individual

   (A) Developmental delay (B) Assessment   (C) Intervention (D) Programme

4. Dyslexia is

   (A) Learning disability (B) Giftedness (C) Attention deficit disorder (D) Habit

II. Fill in the blanks
5. Papaya is a rich source of ............
6. TDSC is based on ------- .
7. Pre – school assistants are also called ------
8. Double promotion is an example of -------

III. Name the following
9. The Key stimulator
10. The first secretion of breast milk.
11. The babies with problems at birth  .
12. The best age for hearing test

IV. State whether True or False
13. The breast feeding helps to develop a close mother – child relationship
14. A child walk alone around 2 years.
15. Age appropriate toys enhance optimal child development.
16. Deficiency of iron is called pellagra. \( (4\times1=4) \)

Part B

Short answer type questions, weight 1 each.
Answer any 5 of the following

17. Name four types of home environment
18. List four purposes of developmental assessment
19. Give the full form of TDSC, NICU, VEP & BERA
20. Enlist the four categories in Benver developmental Screening test II
21. Write four reasons for hearing loss.
22. Bring out four aims of early stimulation
23. Describe the effect of touch on infants

\( (5\times1=5) \)

Part C

Short essay type questions, weight 2 each
Answer any 4 each within one page

24. How can you encourage the child to eat
25. Describe the major milestones based on DOC
26. What are the warning symptoms of visual impairment from 6 -9 months
27. Describe BERA test
28. Enumerate the uses of records in a pre-school
29. Bring out the role of parents in early intervention

(4x2=8)

Part D

Essay type questions, weight 4 each.
Answer any two each within three pages

30. Importance & ways of home – school relationships
31. Describe the ways to encourage exploration
32. New born stimulation at home
33. Bring out the techniques for visual stimulation

(2x4=8)

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SURFACE ORNAMENTATION TECHNIQUES

HS6BO13U4

Time: 3 Hrs

Maximum Weight: 25

Part A

(Objective Type Questions) Answer all
Weight 1 for each bunch

I Choose the correct answer from the brackets:

1. Cut work is ----------- form of ornamentation work.
   (a) a drawn (b) an open (c) a knotted
2. --------- is the embellishment of any material with design done by needle work
   (a) Ikat, (b) chintz, (c) Embroidery
3. Gujarat is Famous for---------work.
   (a) Kutch work, (b) shawl weaving, (c) Banchara Embroidery
4. Tie and dye is a type of--------work.
   (a) Resist (b) painting (c) mirror work.

II Fill in the blanks:

5. Chickan work is an art form of------------------ .
6. Attaching a piece of different coloured material in design form is----------.
7. Block printing is a method of ------------------printing.
8. Mirror works are famous work of----------.
III Match the Following:

9. Dabbing - fullness
10. Kasuti - Bengal
11. Kantha - fabric painting
12. Tucks - Karnataka

IV True or False

13. Kasuti is purely feminine embroidery from Jaipure.
14. Ribbon embroidery is a durable work.
15. Kantha is a patch work.
16. White embroidery is the other name for Chickankari.

(4x1=4)

Part B
Short Answer Type Questions
Weight 1 each. Answer any 5 out of the following

17. Discuss about ribbon embroidery.
18. Give a note on appliqué work.
19. What are tassels?
20. Give short notes on Kasuti works.
21. Give an account on crocheting.
22. Write notes on lazy daisy stitch.
23. Differentiate cut work from patch work.
24. Write notes on Zardosi work.

(5x1=5)

Part C
Short Answer Type Questions
Weight 2 each. Answer any 4 out of the following

25. Write on different techniques in fabric painting.
27. Explain any advanced tie & dye technique with illustration.
28. Write a note on cross stitch.
29. Give an account on batik printing.
30. Write briefly on the application & colors of Kantha work.

(4x2=8)

Part D
Essay type Questions
Weight 4 each. Answer any 2 out of the following

31. Discuss about various traditional embroidery techniques of India.
32. Give an account on various trimmings and decorations applied on garments.
33. Write an essay on tools and techniques used in Embroidery.

(2x4=8)
WOMEN ‘S STUDIES

HS6BO13U5

Time : 3 hrs Maximum weightage -25

Part A
Answer all four bunches
Weightage 1 for each bunch

I Fill up the following
1. --------------------- is the number of females per 1000 males in the total population.
2. MMR is vaccine for preventing-----------------------------.
3. ------------------------- is gender selective or sex selective abortion.
4. Marriage of a female younger than---------------------years is illegal.

II Name the following:-
5. The bill according to which 33% of seats in the political field are reserved for women.
6. A process of bone loss commonly seen among women that results in pain, disability and increased risk of fractures.
7. The nodal agency which leads the states efforts to improve the situation of women and girls.
8. Name a sexually transmitted disease that has now become a pandemic.

III State whether True or False.
9. India is the country with the highest population after China.
10. The number of female children in the 0-6 years category has shown a steady increase as per the last two census reports.
11. The National population Policy was drafted with a view to encourage one child norm.
12. Medical termination of pregnancy is illegal.

IV Match the following
13. Highest female literacy
14. Antenatal Care
15. Sex Discrimination test
16. Self Help Groups
    Female foeticide
    Punjab
    Maternal Morbidity
    Kerala

(4 X 1 = 4)

Part B
(Short answer Type)
Answer any 5 questions

17. Write a short note on foeticide?
18. What are the measures to protect children against sexual harassment?
19. Comment on issues confronting single women?
20. Stae any two objectives of Self Help Groups.
21. Give any four suggestions to promote entrepreneurship among women..
22. Write a short note on the salient features of “Kudambasree” as SHG.
23. List any four factors that lead to domestic violence.

(5 X 1 = 5)
Part C
(Short Essay Type)
Answer any 4 questions
24. Briefly explain any four factors that hinders a woman in rural India from obtaining good education?
25. Explain any two problems confronting divorced women?
26. State any four objectives of National Commission for Women?
27. “Education leads to empowerment” Sate two points to justify the above statement?
28. List any four factors that hinders women from entering the political field.
29. State the significance of legal literacy for Women. List two measures to achieve legal literacy.

(4 X 2 =8)

Part D
(Essay Type)
Answer any 2 questions
30. Comment on the health status of women in India with special reference to Kerala.
31. Elaborate on the literacy level of women in India.
32. What are the advantages of increasing the literacy rate?
33. Dowry - A boon or bane? Give your views.
ACKNOWLEDGEMENT

The members of the Board of Studies in Home Science / Family and Community Science (PG & UG combined) acknowledge the valuable contributions made by the core committee of the previous year. We also thank the members who participated in the review workshop and all the faculty members of Family and Community Science from the various colleges of Mahatma Gandhi University, for their valuable contributions in restructuring and reviewing the curriculum and syllabi of BSc. Family and Community Science (Home Science).

Members of Board of Studies

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Mrs. Manjuline Jacob, Assumption College, Changanacherry

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Sr. Philominamma John, Assumption College, Changanacherry  Chairperson

Dr. Shirly Rachel Kurian, St. Teresa’s College, Ernakulam.

Dr. Thara Sebastian, St. Teresa’s College, Ernakulam

Dr. Ancy Thomas, Morning Star College, Angamaly.

Dr. Miriam Mani, CMS College, Kottayam
Mrs. Manjuline Jacob, Assumption College, Changanacherry

Members of the Review Workshop

Dr. Shirly Rachel Kurian, St. Teresa’s College, Ernakulam
Dr. Ancy Thomas, Morning Star College, Angamaly
Smt. Mary Ipe, BCM College, Kottayam
Smt. Sheelamma Jacob, St. Teresa’s College, Ernakulam
Smt. Teresa Kuncheria, St. Teresa’s College, Ernakulam
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For Board of Studies in Home Science

Dr. Miriam Mani, Chairperson
Calcutta University is set to introduce semester exams and choice-based-credit-system in the undergraduate humanities and science faculties after introducing the same in B.Com last year. Representative Image. KOLKATA: Calcutta University is set to introduce semester exams and choice-based-credit-system in the undergraduate humanities and science faculties after introducing the same in B.Com last year. The students taking admissions in colleges affiliated to CU, commencing from 2018-2019 academic year in the UG courses will be registered under the new format. Also, candidates taking the examina