

**J.S. UNIVERSITY**  
**SHIKOHABAD (FIROZABAD)**



**M.A. (H.Sc.)**  
**(2022)**

(As per NEP-2020 guidelines)  
Session- (2022-2023)

**NATIONAL EDUCATION POLICY-2020**  
**PAPER CODING AND CREDIT DISTRIBUTION**  
**M.A. (HOME SCIENCE)**

| M.A. (HOME SCIENCE)   |                                     |          |  |            |             |
|---|-------------------------------------|----------|--|------------|-------------|
| S. No.  | Name of Degree                      | SEMESTER | TITLE OF PAPER                               | CREDITS    | CODE NUMBER |
| 1   | BACHELOR (RESEARCH) IN Home Science | VII      | RESOURCE MANAGEMENT                          | 4          | A130701T    |
|   |                                     |          | GUIDANCE AND COUNSELLING ACROSS THE LIFE PAN | 4          | A130702T    |
|   |                                     |          | FUNDAMENTALS OF NUTRITION AND FOOD SCIENCE   | 4          | A130703T    |
|   |                                     |          | DEVELOPMENT COMMUNICATION                    | 4          | A130704T    |
|   |                                     |          | INTERNSHIP                                   | 4          | A130705P    |
|   |                                     |          | RESEARCH PROJECT                             |            |             |
| 2   |                                     | VIII     | RESEARCH METHODOLOGY                         | 4          | A130801T    |
|   |                                     |          | ADVANCED FOOD SCIENCE                        | 4          | A130802T    |
|   |                                     |          | THEORIES OF HUMAN DEVELOPMENT                | 4          | A130803T    |
|   |                                     |          | TRADITIONAL TEXTILES AND APPAREL DESIGNING   | 4          | A130804T    |
|   |                                     |          | SURFACE ORNAMENTATION ON TEXTILE             | 4          | A130805P    |
|   |                                     |          | RESEARCH PROJECT                             | 8          | A130806R    |
| One Minor Paper to be selected from OTHER FACULTY in VII or VIII Semester |                                     |          | 4/5/6  |            |             |
| 3   | MASTER OF ARTS IN Home Science      | IX       | ADVANCED APPAREL DESIGNING & PRODUCTION      | 4          | A130901T    |
|   |                                     |          | WOMEN STUDIES                                | 4          | A130902T    |
|   |                                     |          | APPLIED NUTRITION-HEALTH AND FITNESS         | 4          | A130903T    |
|   |                                     |          | SUSTAINABLE DEVELOPMENT                      | 4          | A130904T    |
|   |                                     |          | COMPUTER APPLICATION IN DESIGNING            | 4          | A130905P    |
|   |                                     |          | RESEARCH PROJECT                             |            |             |
| 4   |                                     | X        | ERGONOMICS                                   | 4          | A131001T    |
|   |                                     |          | STUDY OF FAMILY AND SOCIETY                  | 4          | A131002T    |
|   |                                     |          | TRAINING AND MANAGEMENT                      | 4          | A131003T    |
|   |                                     |          | FOOD PROCESSING AND PRESERVATION             | 4          | A131004T    |
|   |                                     |          | FOOD PRESERVATION TECHNIQUES                 | 4          | A131005P    |
|   |                                     |          | RESEARCH PROJECT                             | 8          | A131006R    |
| 5   | P.G.D.R.                            | XI       | THRUST AREAS OF HOME SCIENCE                 | 6          | A131101T    |
|   |                                     |          | ESSENTIALS OF ENTREPRENEURSHIP               | 6          | A131102T    |
|   |                                     |          | RESEARCH METHODOLOGY                         | 4          | A131103T    |
|   |                                     |          | RESEARCH PROJECT                             | Qualifying | A131104R    |

Students may choose MINOR paper from Faculty of Science/Commerce/Languages/Fine Art and Performing Art/Education/Rural Science.

## Bachelor (Research) in Faculty

### Semester VII

| Pape<br>r No | Subject                                     | Course Type        | Credit<br>s | CIE | UE  | Total |
|--------------|---|--------------------|-------------|-----|-----|-------|
| C 1          | Resource Management                         | Theory Major       | 4           | 25  | 75  | 100   |
| C 2          | Guidance and Counseling Across the Lifespan | Theory Major       | 4           | 25  | 75  | 100   |
| C 3          | Fundamentals of Nutrition and Food Science  | Theory Major       | 4           | 25  | 75  | 100   |
| C 4          | Development Communication                   | Theory Major       | 4           | 25  | 75  | 100   |
| C 5          | Internship                                  | Practical<br>Major | 4           | 25  | 75  | 100   |
| C 6          | Other Faculty *                             | Minor              | 4           | 25  | 75  | 100   |
| C 7          | Research Project                            | Project            | 4           | 25  | 75  | 100   |
|              |   |                    | 28          | 175 | 525 | 700   |

### Semester VIII

| Pape<br>r No | Subject                                    | Course Type        | Credit<br>s | CIE | UE  | Total |
|--------------|--|--------------------|-------------|-----|-----|-------|
| C 8          | Research Methodology                       | Theory Major       | 4           | 25  | 75  | 100   |
| C 9          | Advanced Food Science                      | Theory Major       | 4           | 25  | 75  | 100   |
| C 10         | Theories of Human Development              | Theory Major       | 4           | 25  | 75  | 100   |
| C 11         | Traditional Textiles and Apparel Designing | Theory Major       | 4           | 25  | 75  | 100   |
| C 12         | Surface Ornamentation on Textile           | Practical<br>Major | 4           | 25  | 75  | 100   |
| C 13         | Research Project                           | Project            | 4           | 25  | 75  | 100   |
|              |  |                    | 24          | 150 | 450 | 600   |

\*Faculty of Linguistic, Faculty of Computer, Faculty of Management, Faculty of Basic Science

## MA (Home Science)

### Semester IX

| Paper No | Subject                                 | COURSE TYPE     | CREDIT | CIE | UE  | TOTAL |
|----------|---|-----------------|--------|-----|-----|-------|
| C 14     | Advanced Apparel Designing & Production | Theory Major    | 4      | 25  | 75  | 100   |
| C 15     | Women Studies                           | Theory Major    | 4      | 25  | 75  | 100   |
| C 16     | Applied Nutrition-Health and Fitness    | Theory Major    | 4      | 25  | 75  | 100   |
| C 17     | Sustainable Development                 | Theory Major    | 4      | 25  | 75  | 100   |
| C 18     | Computer Application in Designing       | Practical Major | 4      | 25  | 75  | 100   |
| C 19     | Research Project                        | Project         | 4      | 25  | 75  | 100   |
|          |   |                 | 24     | 150 | 450 | 600   |

### Semester X

| Paper No | Subject                          | COURSE TYPE     | CREDIT | CIE | UE  | TOTAL |
|----------|----------------------------------|-----------------|--------|-----|-----|-------|
| C 20     | Ergonomics                       | Theory Major    | 4      | 25  | 75  | 100   |
| C 21     | Study of Family and Society      | Theory Major    | 4      | 25  | 75  | 100   |
| C 22     | Training and Management          | Theory Major    | 4      | 25  | 75  | 100   |
| C 23     | Food Processing and Preservation | Theory Major    | 4      | 25  | 75  | 100   |
| C 24     | Food Preservation Techniques     | Practical Major | 4      | 25  | 75  | 100   |
| C 25     | Research Project                 | Project         | 4      | 25  | 75  | 100   |
|          |                                  |                 | 24     | 150 | 450 | 600   |



## PGDR (Home Science)

### Semester XI

| Paper No | Subject                          | COURSE TYPE | CREDIT | CIE | UE  | TOTAL |
|----------|----------------------------------|-------------|--------|-----|-----|-------|
| C 1      | Thrust areas of Home Science     | Major       | 6      | 25  | 75  | 100   |
| C 2      | Essentials of Entrepreneurship   | Major       | 6      | 25  | 75  | 100   |
| C 3      | Research Methodology             | Major       | 4      | 25  | 75  | 100   |
|          | Research Project<br>(Qualifying) |             |        |     |     |       |
|          |                                  |             | 16     | 75  | 225 | 300   |

#### Abbreviation:

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

# Semester VII

Paper- C 1

A130701T

Resource Management

M.A. (Home Science)

Semester VII

Course Type: Theory Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 4/Week

Credits: 4

### OBJECTIVES:

- To understand the significance of management of resources.
- To develop the ability to evaluate the management efficiency and effectiveness in the family.
- To become familiar with the techniques of financial management.

### CONTENTS

| Unit – I | Money Management   | Periods |
|----------|--|---------|
|          | (a) Basic concepts: Permanent income, Total income, Potential income, National income and Personal income.                       | 1       |
|          | (b) Stages of family life cycle and money management.  | 1       |
|          | (c) Methods of handling money.   | 1       |
|          | (d) Guidelines for money management.   | 4       |
|          | (e) Budgeting: Steps of preparation of a budget, Factors affecting budget, Engel's law of consumption, controlling use of money. | 4       |
|          | (f) Investment: Meaning, definition, elements, objectives, types and points to   |         |

|                  |  |                       |
|------------------|--|-----------------------|
|                  | be consider in making investments.   |                       |
| <b>Unit – II</b> | <b>Time Management</b>   |                       |
|                  | (a) Goals of time management.<br>(b) Factors affecting time management.<br>(c) Constraints in time management.<br>(d) Tools of time management.<br>(e) Managerial process applied to time. | 1<br>3<br>2<br>3<br>3 |
| <b>Unit-III</b>  | <b>Energy Management</b>   |                       |
|                  | (a) Goals of energy management.<br>(b) Factors affecting energy management.<br>(d) Fatigue: Meaning, types and how to control.<br>(e) The managerial process applied to energy management. | 1<br>3<br>4<br>4      |
| <b>Unit- IV</b>  | <b>Work simplification</b>   |                       |
|                  | (a) Meaning and definition of work simplification.   | 3                     |

|  |  |   |
|--|--|---|
|  | (b) Techniques of work simplification.           | 3 |
|  | (c) Mundell's classes of change.                 | 3 |
|  | (d) Importance for physically handicapped women. | 3 |

### **SESSIONAL WORK**

- (a) Preparation of budget for various income groups.
- (b) Seminars should be conducted on above topics.
- (c) Market survey on time and energy saving equipments available in the market.
- (d) Application of work simplification techniques.

### **References**

- (a) Varghese M.A. Ogale and Srivasan. K - Home Mgt.
- (b) Bigelous H. Family Finance.
- (c) Gross and Crandall - management in family living.
- (d) Steidell and Braton - work in home.

### **Abbreviations:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

## Paper – C 2

## Guidance and Counseling Across the Lifespan

## M.A. (Home Science)

## Semester VII

Course Type: Theory Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 4/Week

Credits: 4

**Objectives:**

1. To understand the need for guidance and counseling in human development.
2. To introduce basic concepts in guidance and counseling therapy.
3. To discuss the processes involved in counseling at different stages in life.
4. To acquaint students will record to qualities of guidance workers and counselor.

| UNIT- I  | Guidance and its Nature  | PERIODS |
|----------|--|---------|
|          | a. Meaning, aims, principles and basic assumptions of guidance | 3       |
|          | b. Needs and importance of child and family guidance           | 3       |
|          | c. Kinds of guidance- educational, vocational and personal     | 6       |
| UNIT- II | Guidance of Children at School and Home                        |         |
|          | a. Elementary school years                                     | 3       |
|          | b. Adolescence- need of sex education at home and school       | 3       |
|          | c. Middle years  | 3       |
|          | d. Old age   | 3       |
| UNIT-III | Life Span Psychological Disorders and Counseling               |         |
|          | Nature of psychological disorders that require counseling and  |         |



|                 |  |   |
|-----------------|--|---|
|                 | therapy in the following stages of human development-            |   |
|                 | a. Childhood   | 3 |
|                 | b. Adolescence   | 3 |
|                 | c. Adulthood   | 3 |
|                 | d. Old age   | 3 |
| <b>UNIT- IV</b> | <b>Counseling</b>  |   |
|                 | a. Meaning, aims, principles and basic assumptions of Counseling | 3 |
|                 | b. Needs and importance of child and family counseling           | 3 |
|                 | c. Qualities and skills of counselor                             | 3 |
|                 | d. Techniques of counseling- directive and non-directive         | 3 |

### **SESSIONAL WORK**

1. Visit and write report on any two counseling centers such as HIV/AIDS, drug deaddiction centers.
2. Collect three case studies and analyses the psycho-social problems in each. Prepare case reports.
3. Conduct role play/street play/puppet show etc. to generate community awareness on issues and topics related to human development and family relations.
4. Interaction with practicing counselors working in schools, clinics, women centers and hospitals and preparing a report of the same.

### **References:**

1. Gibson R and Mitchell M(1999) introduction to guidance and counseling (5<sup>th</sup> ed) New Jersey:Printice Hall Inc.
2. Egan G (2002) the skilled helpers : A systematic approach to effective helping (7<sup>th</sup> ed) Pacific grove Ca:Brooks /Cole.

### **Abbreviations:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

**Paper-C3**

**Fundamentals of Nutrition and Food Science  
MA (Home Science)  
Semester- VII**

Course Type: Theory Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 4/Week

Credits: 4

**UNIT- I - Basic concepts in Food and Nutrition**

1. Basic terms used in the study of Food and Nutrition.
2. Understanding relationship between food, nutrition and health
3. Functions of food – physiological, psychological and social.

**UNIT –II- Nutrients**

Functions, dietary source and Recommended Dietary allowances (RDA)

1. Carbohydrates, lipids, and proteins.
2. Fat soluble vitamins- A, D,E and K
3. Water soluble vitamins – thiamine, riboflavin, niacin, pyridoxine, folate, vitamin B12, and vitamin C.
4. Minerals- calcium, iron and iodine

**UNIT –III- Food Groups**

Selection, nutritional contribution and changes during cooking of the following food groups:-

1. Cereals
2. Pulses
3. Fruits and vegetables
4. Milk and milk product
5. Eggs
6. Meat, poultry and fish
7. Fats and oils

**UNIT –IV Methods of Cooking and preventing nutrient losses**

1. Dry, moist, frying and microwave cooking
2. Advantages, disadvantages and the effect of various method of cooking on nutrients
3. Minimizing nutrient losses

**References:**

- Bamji MS, Krishnaswamy K, Brahma GNV(2009). Textbook of Human Nutrition, 3<sup>rd</sup> Edition.Oxford and IBH Publishing Co. Pvt.Ltd.
- Srilakshmi (2010). Food Science, 5th Edition. New Age International Ltd.

- Raina U, Kashyap S, Narula V, Thomas S, Survira, Vir S, Chopra S (2010). Basic food preparation : A complete Manual, forth edition, Orient Black Swan Ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby.

**Sessional :**

1. Working instructions. Weights and measures and table setting, preparing market order.
2. Identification of food sources for various nutrient
3. Food preparation, understanding the principles involved , nutritional quality and portion size
  - Beverages : Hot tea/coffee, milk shakes/lassi, fruit based beverages
  - Cereals: boiled rice, pulao, chapati, paratha, puri, pastas.
  - Pluses : Whole, dehusked
  - Vegetables: curries, dry preparations
  - Milk and milk products: Kheer, custard
  - Meat, fish and poultry preparations
  - Egg preparations: Boiled, poached, fried, scrambled, omelet, egg pudding
  - Soups: Broth, plain and cream soups
  - Baked Products : Biscuits, cookies, cream cakes, sponge cake preparations, tarts and pies.
  - Snacks: pakoras, cutlets, samosa, upma, poha, sandwiches
  - Salad: Salads and salad dressings
  - Preserved Foods

Paper: C 4

**Development Communication****M.A. (Home Science)****VII Semester**

Instruction hours/week-4

Course Type-

Theory Major

Credit- 4

Max Marks- 100

CIE- 25

UE- 75

Objectives - The course will enable the students to -

- Make students understand the role of communication in development.
- Get acquainted with the approaches, issues, patterns and perspective for development communication in India

| UNITS | COURSE AND DETAILS  | PERIODS     |
|-------|---|-------------|
| I.    | <b>CONCEPTS</b><br>1) Definition, nature, role and significance of development and development communication.<br>2) Interrelation between development and development communication.<br>3) Global and historical perspectives of development communication. | 2<br>2<br>2 |
| II.   | <b>Models of Development Communication</b><br>1) Interdependent Model<br>2) Dependency Model<br>3) Basic Need Model   | 2<br>2<br>2 |
| III   | <b>Development Communication projects and experiments</b><br>1) Traditional Media experiments.<br>2) Modern Media experiments – SITE, JDCP & PEARL<br>3) New Media experiments – GYANDOOT, CYBER EXPERIMENTS.   | 3<br>3<br>2 |
| IV    | <b>Strategies for Message design in Development Communication</b>   |             |

|  |   |
|--|---|
| 1) Need Assessment                                       | 2 |
| 2) Role of communication and audience in message design. | 2 |
| 3) Assessment of Resources and choosing the Media.       | 2 |
| 4) Defining content & form of Message                    | 2 |
| 5) Designing & implementing the communication            | 2 |
| 6) Evaluation of communication                           | 2 |

#### References:

1. Singh, Kartar (1999), Rural Development Principles, Policies and Management, Sage Publications India Pvt. Ltd., New Delhi.
2. Mudy, B (1992) Designing Messages with audience participation, Sage, New Delhi.
3. Naenla, U (1994) Development Communication, Maranand, New Delhi.
4. Kotler, Roberts, Lee (2002) Social Marketing, Improving Quality of life, 2nd Edition, Sage, Thousands Oaks.
5. Servaes, Jacobson and White (1996) Participatory communication for social change, sage, New Delhi.

#### Sessional Work

1. Seminar presentation on any topic from syllabus.
2. Academic assessment through short and long questions.
3. Discussions on issues related to Development Communication.

#### Abbreviation:

CIE- Continuous Internal Evaluation.  
UE – University Examination.

## Internship

Course Type: Practical Major

Credits: 4

Teaching Periods: 4/ week

CIE – 25 Marks

UE – 75 Marks

### Work Experience/Internship

#### Focus:

Knowing does not automatically result in the ability to “do” or to “feel” which are necessary for professional development. Students need exposure to various setting in community and social welfare to enable them acquire some experience of working with specific target group like children, rural- women, adolescent, youth, aged and masses. The assignment will also provide an opportunity for student to get acquainted with innovative projects of community development and welfare. It is a sort of work experience for student.

#### Objectives:

To enable the students to get an opportunity for exposure to the functioning of the specific agency.

#### Placement Agencies –

KVK'S, Family welfare agencies/ NGO'S / special cells of women in distress// social welfare organization / Institution meant for international agencies, community radio station televisions institutions and dept. of mass communication and journalism, advertising agencies and old age homes and hospitals.

#### Evaluation / Assessment of students performance may be done on following point -

- Regularity and punctuality in attendance
- Ability to work in the team.
- Ability to be sensitive to the client.
- Initiative to organize specific programme.
- Proper record maintenance
- Oral presentation

Students have to make presentation and submit a report at the beginning of IX Semester.



**Paper: C 6**

**M.A. (Home Science)**

**Minor**

**(Other Faculty)**

## **Paper – C 7**

**M.A. (Home Science)**

### **Research Project**

CIE – 25 Marks

UE – 75 Marks

Credits: 4

#### **Course Content:**

1. Identification of research problem
2. Preparation and finalization of synopsis

#### **Abbreviations:**

CIE: Continuous Internal Evaluation

UE: University Exam

# **Semester VIII**

**Paper – C 8**  
**Research Methodology**  
**M.A. (Home Science)**  
**Semester VIII**

Course Type: Theory Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 4/Week

Credits: 4

**Objectives:**

- To understand the significance of Research Methodology in Home Science Research.
- To study the types, tools and Methods of Research and develop the ability to construct data appropriate to the Research Design.
- To develop skills for preparation of research proposal and writing report.

| UNIT- I  | Introduction to Research   | PERIODS |
|----------|--|---------|
|          | 1. Meaning, purpose, approaches and scope in various field of Home Science   | 2       |
|          | 2. Types of Research   | 3       |
|          | 3. Selection of Research problem: need, relevance and feasibility  | 2       |
|          | 4. Research Design: meaning, purpose and criteria( Experimental and Observational)   | 3       |
|          | 5. Quantitative and Qualitative approaches   | 2       |
| UNIT- II | Research Process   |         |
|          | 1. Planning the Research   | 2       |
|          | 2. Defining the Research problem   | 2       |
|          | 3. Research Objectives: Definition and formulation of hypothesis/objectives  | 2       |
|          | 4. Review of related literature  | 2       |
|          | 5. Basics of Sampling: Sampling vs. Complete Enumeration Objectives, Principles and Limitations of sampling, Sampling Techniques, Size and Error | 4       |
| UNIT-III | Data Collection Tools and Statistical Methods  |         |
|          | 1. Primary and Secondary Data, Methods and Tools in Data Collection (Schedule, Questionnaire, Interview, Case Study Method etc.)                 | 2       |

|                 |   |   |
|-----------------|---|---|
|                 | 2. Measurement and Scaling Techniques, Validity, Reliability, Sensitivity of Data Collection Tools  | 2 |
|                 | 3. Processing of Data: Editing, Classification, Coding, Tabulation of Data,   | 2 |
|                 | 4. Statistical Measures (Measures of Central Tendency, Dispersion, and Correlation)   | 3 |
|                 | 5. Test of Significance: t-test, chi-square test  | 3 |
| <b>UNIT- IV</b> | <b>Report Writing</b>   |   |
|                 | 1. Summary, Conclusion and Recommendations  | 3 |
|                 | 2. Writing References   | 2 |
|                 | 3. Writing Process of Research Report: Formal Style of writing, Preface, Chapterization, Headings, Tables and Figures, Appendices, Bibliography and Acknowledgement | 7 |

### Sessional

- Prepare a research plan of any field of Home Science.
- Prepare a Schedule/Questionnaire of the related topic using scaling techniques.
- Use and importance of coding and preparation of master chart for analysis.

### References:

1. C. R. Kothari: Research Methodology- Method and Techniques
2. R. Kumar: Research Methodology: A step by Step Guide for Beginners
3. M. H. Gopal: Introduction to Research Methodology for Social Sciences
4. Good, Carter, Scales and Douglas: Methods of Research

### Abbreviations:

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

**Paper – C 9**  
**Advanced Food Science**  
**M.A. (Home Science)**

**Semester-VIII**

Course Type: Theory Major

UE – 75 Marks

CIE – 25 Marks

Credits: 4

Teaching Periods: 4/Week

**Objectives :**

- Enabling students to comprehend the changes that occur in the physiochemical properties of food stuffs during food preparation.
- Enabling the students to understand and apply the various techniques in the quality evaluation of foods.
- Imparting awareness on the concept of 'food product development'

**CONTENTS**

| UNIT-I  | Colloids and Carbohydrates in Food  | PERIODS |
|---------|---|---------|
|         | 1. Introduction to food science.  | 1       |
|         | 2. Physical & Chemical properties of foods-Changes occurring on cooking and storages.   | 2       |
|         | 3. Colloids – Properties denaturation of proteins, gelatinisation, gel formation, emulsions, foams, browning reactions enzymatic and non-enzymatic.                                 | 4       |
|         | 4. Sugar Cookery:<br>Stages of cookery, fondants, fudges, caramels and brittles, crystallisation of sugar.  | 2       |
|         | 5. Starch Cookery:<br>Gelation, factors affecting gelation, starch as thickener, different sources of starch and their properties cereals and millets-their milling and parboiling. | 3       |
| UNIT-II | Proteins and Fats in Food   |         |
|         | 1. Protein Cookery  |         |
|         | (a) Properties of milk protein, other milk products- curds, evaporated, spray dried and condensed milk, Cheese, Khoya, Their use in food preparations.                              | 3       |
|         | (b) Cereals, grams and dals-Effect of soaking, germination & fermentation on cereals and pulses, properties of gluten, gluten formation and the factors affecting it.               | 3       |
|         | (c) Eggs-Properties of egg-proteins & uses in egg preparations, egg as binding, foaming and emulsifying agent mayonnaise preparation.   | 3       |
|         | (d) Meat-Postmortem changes, changes on cooking, fish types, changes during heat treatment.   | 2       |



|          |  |                        |
|----------|--|------------------------|
|          | 2. Fats & Oils:<br>Properties, smoking points, melting point, hydrogenation, shortening effect. Changes in Storage, rancidity, oxidative and hydrolytic, whipped cream as double emulsion, different commercial products and their uses.   | 3                      |
| UNIT-III | Vegetables & Fruits, Sensory Evaluation  |                        |
|          | 1. Vegetables & Fruits:<br>Structure of vegetable tissues, starch, sugars, pectic substances, celluloses and their effect on texture and palatability. Plant pigments, plant enzymes, enzymatic browning, use of plant enzymes for textural changes in foods eg. Effect on meat. | 4                      |
|          | 2. Sensory evaluation<br>a) Selection of panel of judges<br>b) Types of tests<br>c) Judging<br>Objective methods of measurement of:<br>a) Colour<br>b) Texture   | 2<br><br><br><br><br>2 |
| UNIT-IV  | New Product Development  |                        |
|          | a) Food Additives: Definition, importance, classification & uses   | 2                      |
|          | b) Leavening agents : Importance, classification, nature & use   | 2                      |
|          | c) Food product development: Definition, factors affecting product development and health concerns.  | 3                      |

#### References:

1. Charley, H. (1982): Food Science (2<sup>nd</sup> Edition), John Wiley and Sons, New York.
2. Potter, N. and Hotchkins, J.H. (1996): Food Science, 5<sup>th</sup> Edition, CBS Publishers and Distributors, New Delhi
3. Belitz, H.D and Geosch, W (1999): Food Chemistry, 2<sup>nd</sup> Edition, Springer, New York
4. Manay, N.S and ShadarsSharaswamy, M. 1987. Food ,Facts and Principles. Wiley Eastern Ltd, New Delhi.
5. Srilakshmi, B.2001. Food Science. New Age International Pvt Ltd. 2<sup>nd</sup> Edition.
6. Meyer, L.H. Food Chemistry, Reinhold Book Corporation, New York.

|    | Sessional  |
|----|--|
| 1. | Experience in training for taste perception & thresh holds, hedonic scale for attributes of foods & developing score cards. Triangular tests, duo & trio tests & others.                 |
| 2. | Standardisation of recipes & methods or reporting recipes.   |
| 3. | Experiments on crystallization of sugar & effects of temperature, concentration, acids and other preparation & evaluation of any three preparations. Laddoo, Halwa&GulabJamun.           |
| 4. | Experiment on starch gelatinization, viscosity, measurement of starch pastes- comparison of different sources of starch.   |
| 5. | Experiment with eggs to study the properties of coagulation foaming, emulsifying, colouring, effect of quality of eggs on these properties. Preparation of cakes, Mayonnaise evaluation. |
| 6. | Milk cookery preparation & evaluation of soup(cream of tomato), cheese, curd, ice-cream.   |

|     |  |
|-----|--|
| 7.  | Meat- Methods of cooking, factors affecting texture of meat.   |
| 8.  | Pulses- Method of cooking pulses, effect of soaking, alkali, salts, germination.                                 |
| 9   | Vegetable & Fruit cooking- Factors affecting colour, texture, flavours, browning reactions & preventive methods. |
| 10. | Fats & Oils – smoking point, absorptions, tests, shortening - effect in food preparations                        |

**Theories of Human Development**  
**M.A. (Home Science)**

**Semester VIII**

Course Type: Theory Major

Credits: 4

Teaching Periods: 4/ week

CIE – 25 Marks

UE – 75 Marks

**Objectives:**

1. To make the students have knowledge of the theories of human development and behavior
  - a) To analyse the major contributions of a theorist
  - b) Identify and address the major criticisms of a theory
2. To develop in students an appreciation for primary literature
3. To introduce the students to the latest theories of human development and behaviour

| UNIT- I  | Overview of Theories   | PERIODS |
|----------|--|---------|
|          | a. Concepts/ definitions of theories                         | 1       |
|          | b. Role of theory in advancement of knowledge                | 1       |
|          | c. Process of theory development                             | 2       |
|          | d. Psychoanalytic Perspectives - Freud and the Neo Freudians |         |
|          | (i) Psycho analytic theory of Freud                          | 2       |
|          | (ii) Alfred Adler  | 2       |
|          | (iii) Carl Jung  | 2       |
|          | (iv) Erick Erickson  | 2       |
| UNIT- II | Learning Perspective   |         |
|          | a. Classical conditioning - Pavlov                           | 3       |
|          | b. Operant conditioning                                      | 3       |
|          | c. Trial and error – Thorndike                               | 3       |
|          | d. Bandura and Walters                                       | 3       |
| UNIT-III | Cognitive and Moral Perspective                              |         |
|          | a. Piaget's theory of cognition                              | 3       |
|          | b. Vygotsky theory   | 2       |
|          | c. Information processing theory                             | 4       |
|          | d. Moral reasoning and development-perspective of            | 3       |

|                 |  |          |
|-----------------|--|----------|
|                 | Kohlberg and Piaget                          |          |
| <b>UNIT- IV</b> | <b>Personality and Contemporary Theories</b> |          |
|                 | a. Gordon Allport                            | <b>3</b> |
|                 | b. Kurt Lewin                                | <b>3</b> |
|                 | c. Urie Bronfenbrenner                       | <b>3</b> |
|                 | d. Maslow                                    | <b>3</b> |

### Sessional Work

1. Term paper on any one of the theories
2. Seminar presentation of various issues related to theoretical perspectives
3. Presentations / making reading cards on articles from Journal

### References:

1. Hall C.S. and Lindzey G. 1978. Theories of Personality (IIIrd Edition). John Wiley and Sons. Toronto.
2. Dicapero S.N. 1974 Personality Theories- Guides to Living. Department of Psychology. John Carroll University.
3. Baldwin A.L. 1967 Theories of Child Development IIInd Edition.
4. Ryckman R.M. 1978. Theories of personality, D. Van Nostrand Company, New York.
5. Abramson R.P. 1980 Personality, University of California.
6. Hilgard R.E. 1975 Theories of learning Englewood Chiff. New Jersey.

### Abbreviations:

**CIE:** Continuous Internal Evaluation  
**UE:** University Exam

**A130804T**

**Paper – C11**  
**Traditional Textiles and Apparel Designing**

**M.A. Home Science**

**Semester VIII**

**Course Type -Theory Major**

**CIE : 25**

**Credit: 4**

**UE: 75**

**Objective**

1. To impart knowledge about the traditional textiles of India
2. To enable the students to familiarize with the essentials of apparel making
3. To acquaint with the various steps involved in the apparel making system and to gain skill in making certain garments.

**Unit-I Introduction to Traditional Indian textiles**

1. Dacca Muslin
2. Chanderi Sarees and muslin
3. Kashmir shawls
4. Brocades of Hyderabad
5. Banaras Brocades
6. Brocades of Gujrat
7. Tie & Dye of Rajasthan and Gujrat
8. Patola of Gujrat, Orissa and Cuttack (Ikat)
9. Kota cotton and zari border sarees of Rajasthan

**Unit-II Embroideries of India**

1. Chikan Kari of Uttar Pradesh
2. Kasuti of Karnataka
3. Phulkari of Punjab
4. Kashida of Kashmir
5. Kantha of Bengal
6. Embroidery of Kutch and Kathiawar
7. Zari Embroidery
8. Sindhi Embroidery
9. Chamba Rumal
10. Manipuri

**Unit-III Design Analysis with respect to apparel and textile design**

1. Introduction to applied art
  - Elements of Design
  - Principles of Design
2. Designs: Structural, Decorative and abstract designs

3. Fittings- Principles, common fitting problems for different figure type, their rectification
  - Short figures • Thin figures
  - Large & flat chest • Flat & large hips
  - Broad & narrow shoulders • Long, short & thick neck

#### **Unit-IV**

##### **1. Introduction of Apparel Design with respect to Fashion**

- Fashion cycle
- Theories of Fashion
- Fashion terminology

##### **2. Family clothing**

- Factors affecting family clothing
- Wardrobe planning for the family

##### **3. Techniques in pattern making**

- Flat pattern • Drafting • Draping

#### **Books & References Paper-**

##### **Traditional Textiles & Apparel designing**

1. Agarwal Rajni & Gupta Sanjula : Praidhan Nirman Avam Fashion Designing
2. Henery Sapna & Patni Manju : Parivarik Paridhan Vyavastha
3. Patni Manju : Vastra Vigyan Avam Paridhan Vyasvastha, Star Publication, Agra
4. Singh Vrinda : Vastra Vigyan Avam Paridhan
5. Tumter G.L. : Cutting & Tailoring
6. Verma Pramila : Vastra Vigyan Avam Paridhan



**Paper – C12**  
**Surface Ornamentation on Textile**  
**M.A. Home Science**  
**Semester VIII**

**Course Type -Practical Major**  
**Credit: 4**

**CIE: 25**  
**UE: 75**

**Objectives**

To impart skill of value addition to various products through dyeing and printing

**Contents**

| S. N. | Topic  | Practical |
|-------|--|-----------|
| 1. a. | Textile design through dyeing.   | 6         |
|       | - Tie and dye<br>- Batik   |           |
| b.    | Making an article using each of these.   |           |
| 2.    | Preparation of screens for printing and making an article of Textile design through Screen printing.                         | 10        |
| 3.    | Textile design through Block printing and Stencil printing and making an article using each of these'.                       | 10        |
| 4.    | Usage of traditional and contemporary embroidery techniques for developing an article.                                       | 6         |
| 5.    | Preparation an article using any two of the above techniques.  | 4         |
| 6.    | Developing a portfolio exhibiting various styles and methods of dyeing, printing and embroidery traditionally used in India. | 6         |
| 7.    | Reports of visits to dyeing and printing Units.  | 4         |
| 8.    | Learning to exhibit products made in the semester.   | 2         |

**References**

1. V. A. Shenai( 1987 ), Chemistry of Dyes and principles of Dyeing, Sevak. Prakasan, Mumbai.
2. H. A. Lubs, Robert E. Chemistry of Synthelic Dyes and pigments, Krieger Publishing company, New Yark.
3. V. A. Shenai( 1999), Azo Dyes – Facts and Figures- SevakPrakashan, Mumbai.
4. R. S. Prayag, Technology Textile printing- Naves Data Corporation Corporation.

5. V. A. Shenai (1977), Technology of printing – Technology of Textile processing, Vol. IV, Sevak Publication.
6. M. L. Gulrajari and Deepti Gupta (1990), Natural Dyes and their Application to Textiles” ed. I.I.T. Delhi publication.
7. John and margarat Cannon (1994), Dye plants and Dyeing, The Herbert press ( UK)
8. ASTM and ISI Standards.
9. K. Venkatrama (1970) Chemistry of Synthetic Dyes, Part I and II.

**A130806R**

**Paper – C 13**

**Research Project**

**M.A. Home Science**

**Semester VIII**

**CIE – 25 Marks**

**UE – 75 Marks**

**Credits: 4**

**Course Content:**

1. Review of Literature and methodology of the study
2. Finalization of Data collection tool

**Abbreviations:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

# **Semester IX**

A130901T

**Paper – C14**  
**Advanced Apparel Designing & Production**

**M.A (Home Science)**

**Semester: IX**

**Course type: Theory Major**

**CIE: 25**

**Credits: 4**

**UE: 75**

**Objectives:**

1. To impart an in depth knowledge of style reading pattern making and garment construction techniques.
2. To develop and understand the principles of pattern making through flat pattern.
3. To impart creative and technical and skills for designing product with special emphasis on structural design.

**Contents**

| Units                                | Topic                             | Periods |
|--------------------------------------|-----------------------------------|---------|
| <u>UNIT I:</u><br>INTRODUCTION       | (a) Target market, Merchandising. | 1       |
|                                      | (b.) Line and its development.    | 1       |
| <u>UNIT II:APPAREL</u><br>PRODUCTION | (a) Costing a garment             | 1       |
|                                      | (b) Purchasing of piece goods     |         |
|                                      | (c) Production schedule.          | 1       |
|                                      | (d) Garment Assembly              | 1       |
|                                      | (e) Preparation for dispatch      | 1       |

|  |   |                     |
|--|---|---------------------|
| <b>UNIT III:</b><br><b>TECHNIQUES OF</b><br><b>MASS PRODUCTION</b> | (a) Planning of Garment Business, procurement of raw material, organization in an apparel firm.<br>(b) Sampling Department- Importance, objective, types of samples (size set, fit sample, prototype sample, production sample.), Design development and Developing a sample garment<br>(c) Cutting Department-Cutting procedure - fabric laying, marker preparations, sorting, numbering & bundling.<br>(d) Machinery and equipment require for garment production for industrial level cutting, sewing, finishing and embellishment | 3<br><br><br><br>3  |
| <b>UNITIV:PRODUCTION</b><br><b>AND QUALITY</b><br><b>CONTROL</b>   | (a) Production Department- Selection of production system (progressive bundle system, unit production system), modular manufacturing, piece work, production planning.<br>(b) Finishing and pressing Department- Trimming, packing.<br>(c) Applying Quality control, quality assurance in production processes - fabric cutting, sewing, finishing and packing.   | 2<br><br>2<br><br>2 |

### Sessional

| S. N. | Sessional   | Periods |
|-------|---|---------|
| 1.    | Drafting of personal Blouse pattern and plain sleeve block and construction of simple sari blouse.  | 8       |
| 2.    | 1. (a) Manipulation of personal block –<br>(i) Relocation of darts by slash and spread method<br>(ii) Converting darts into tucks,<br>(iii) gathers (iv) yokes (v) lines.<br>(b) Construction of three sari blouses using any of the above. | 8       |
| 3.    | Development of basic skirt block and its adaptation into style variations (Half scale) Construction of any one skirt for self.  | 8       |

|    |   |   |
|----|---|---|
|    | (i) Its adaptation to various skirt styles on half scale<br>(ii) Construction of any one of these / Indo- western outfit.   |   |
| 4. | Designing of two adaptive clothing for each of the following and construction of any one for any group -<br>(i) Maternity wear (ii) Feeding mothers (iii) Physically challenged (iv) Old age. | 8 |

## References

1. Leanard G. Rubin (1976): The world of fashion, Publication canfield Press, San Fransisco.
2. Patrick John Ireland: Fashion Design Illustration, B. T. Batsford Ltd. London.
3. Prakash, K. (1989): Impressions, Ethnic Textile Designs, Deluxe Packaging.
4. Prakash, K. (1989): Impressions, Deluxe Packaging.
5. Carr, H. and Pomery, J. (1992): Fashion Design and Product Development, Blackwell scientific Publication, London, Edinburgh, Boston.

A130902T

**Paper – C 15**  
**Women Studies**  
**M.A (Home Science)**  
**Semester IX**

Course Type: Theory Major

Credits: 4

Teaching Periods: 4/ week

CIE – 25 Marks

UE – 75 Marks

**Objectives:**

To impart knowledge regarding scope and perspectives to women' studies in cultural context and acquaint them to various important issues regarding women's studies and development.

| UNIT-I   | Women Perspectives and Movements- A General Overview   | PERIODS |
|----------|--|---------|
|          | a. Meaning and scope of women's studies  | 2       |
|          | b. Women's perspective and its constituent elements in present social economic and cultural context  | 4       |
|          | c. Women's Movement in pre independent and post independent periods and present trends   | 4       |
|          | d. Milestones and obstacles in women's Movement in India   | 2       |
| UNIT- II | Women and the Indian Scenario  |         |
|          | a. Feminism, its basic types and their relevance to Indian context. Facts and myths of feminism.   | 2       |
|          | b. Importance of women's participation in economics, educational, social and political development.  | 6       |
|          | c. Gender role and sex role stereotypes. changes in educational, economic, social and familial status of women   | 4       |
| UNIT-III | Women Challenges and Issues  |         |
|          | a. Population statistics and sex ratio   | 2       |
|          | b. Working women and challenges - problems of working women in unorganized sector  | 3       |
|          | c. Issues concerning Women-gender violence, dowry harassment and deaths, suicides. Commercial and religious prostitution, eve-teasing, family and domestic violence foeticide and infanticide, child marriage. | 7       |



|                 |   |          |
|-----------------|---|----------|
| <b>UNIT- IV</b> | <b>Media, Laws and Policies</b>   |          |
|                 | a. A critique of laws for women   | <b>4</b> |
|                 | b. Women and mass media   | <b>2</b> |
|                 | c. Women's health and family planning, health indicators  | <b>2</b> |
|                 | d. National Women's Commission and State Commission for Women and their role in women studies and policy issues | <b>4</b> |

### **Sessional Work**

- a) Observational visits to women's organization
- b) Planning and organizing awareness campaigns on vital women's issues
- c) Portrayal of women in mass media-newspapers, magazines, television, movies.  
- Critical analysis
- d) Situation analysis of gender equality and equity

### **References:**

1. Baker, H.A. Berthieide, G.W. and other (Eds.) (1980) Women Today: A multidisciplinary approach to women's studies. Brooks/cole publication.
2. Joseph, A & Shama K. (Ede) (1994). Whose News? The media and women's issues: sage: New Delhi.
3. Jain D & Banerjee N. (1985) The tyranny of house hold, investigative essay on women and work: Vikas New Delhi.
4. Anderoson L. Margoret (1997) Thinking about women sociological perspective on sex and gender, allyn and bacon, A via com company. 160 gold stroet needhenin heights, U.S.A.
5. Dutta R.K. 2003 Crimes Against Women Reference Press.
6. Devi L. 1998 Encyclopedia of Women Development and Family Welfare. Volumes 1-6, Anmol Publication Pvt. Ltd. New Delhi.
7. Baruah A. 2003 Women in India Anmol Publication Pvt. Ltd.
8. Kahol Y. 2003 Violence Against women Reference Press.

### **Abbreviations:**

**CIE:** Continuous Internal Evaluation  
**UE:** University Exam

**Paper – C 16**  
**Applied Nutrition-Health and Fitness**  
**M.A (Home Science)**

**Semester IX**

Course Type: Theory Major

Credits: 4

Teaching Periods: 4/ week

CIE – 25 Marks

UE – 75

**Objectives:**

- To promote the students understanding about the functional benefits of foods for health and fitness.
- To enable the students to understand the role of nutrition in the dietary management of geriatrics
- To enable the students to understand the physiological demands during different sports activities.

**CONTENTS**

| <b>UNIT -I</b>  | <b>ANTIOXIDANTS IN HEALTH &amp; DISEASE</b>  | <b>PERIODS</b> |
|-----------------|--|----------------|
|                 | 1.Effect of oxidants on Macromolecules- Carbohydrates, proteins, lipids , nucleic acids.   | 3              |
|                 | 2.Nutrient antioxidants with potent health effects   | 2              |
|                 | 3. Non- Nutritive food components with potential effects (Flavonoids-polyphenols and tannates, phytoestrogens, cyanogenic compounds) | 2              |
|                 | 4. Pre and Probiotics  | 2              |
|                 | 5. Foetal origin of Non-communicable disease   | 1              |
|                 | 6.Nutrigenomics- the future of Nutrition care for health management, treatment and prevention of diseases.                           | 2              |
| <b>UNIT-II</b>  | <b>GERIATRIC NUTRITION- MULTIFACETED ASPECT OF AGEING</b>  |                |
|                 | 1.Ageing process- changing demographic trends, theories of ageing  | 3              |
|                 | 2.The ageing process- physiological, biochemical and body composition changes  | 3              |
|                 | 3.Health and Nutritional problems of the elderly   | 2              |
|                 | 4. Nutritional requirements and dietary guidelines   | 2              |
|                 | 5. Community geriatrics- Dimensions, issues and solutions.   | 2              |
| <b>UNIT-III</b> | <b>NUTRITIONAL MANAGEMENT- HEALTH &amp; FITNESS</b>  |                |
|                 | 1.Definitions, components and assessment criteria of-<br>- Specific fitness<br>- Health status                                       | 2              |
|                 | 2. Holistic approach to management of fitness and health<br>- energy input and output<br>- diet and exercise                         | 1<br>1         |

|                 |  |   |
|-----------------|--|---|
|                 | - effect of specific nutrients on work performance and physical fitness  | 3 |
|                 | - nutrition, exercise, physical fitness and health inter-relationships   | 3 |
|                 | 3. Alternative systems for health and fitness like Ayurveda, yoga, meditation, vegetarianism and traditional diets.                    | 2 |
| <b>UNIT- IV</b> | <b>NUTRITION IN SPORTS</b>   |   |
|                 | 1. Physiological aspects- Metabolic changes during sports activity   | 2 |
|                 | 2. Energy systems for endurance and power activity   | 2 |
|                 | 3. Fuels for muscle contraction, Nutritional requirements for sports: Pre game, during and post game meal ( Short-duration, endurance) | 4 |
|                 | 4. Water & Electrolyte balance and replenishments  | 2 |
|                 | 5. Ergogenic aids, sports drink, uses and abuse of dietary supplements   | 2 |

#### References:

1. Shils ME, Olson JA and Shike N (1994). Modern Nutrition in Health & Disease. 8<sup>th</sup> Edition, Vol I and II, Philadelphia Lea and Febiger.
2. Bagchi K and Puri S (1999). Diet and Ageing: Exploring some facts. Society of Gerontological research and HelpageIndia, New Delhi.
3. Parizkova J (1997). Nutrition, physical activity and health in early life. Ed. Wolinsky, I, CRC press.
4. McArdle W, Katch F, Katch V (1996). Exercise physiology, exercise energy, nutrition and human performance. 4<sup>th</sup> Edition. Williams and Wilkins, Philadelphia.
5. Indian Council of Medical Research (2000). Nutrient Requirements and Recommended Dietary Allowances for Indians: A report of the expert group of the ICMR, New Delhi.
6. Hickson JH (2000). Nutrition for exercise & sport. CRC Press. 2<sup>nd</sup> Edition.
7. Mahan, L.K and Escott Stump .S. (2008). Krause's Food & Nutrition Therapy. 12<sup>th</sup> Ed. Saunders-Elsevier.
8. Ira Wolinsky (Ed.). Nutrition in Exercise & Sports. 3<sup>rd</sup> Edition.

#### Journals:

1. Medicine and Science in sports in exercise
2. International Journal of Sports Nutrition
3. Journal of Applied Nutrition

|    | Sessional  |
|----|--|
| 1. | Market Survey for commercial nutritional products for physical fitness & sports performance available in India |
| 2. | Ayurveda Cooking   |
| 3. | Yoga and Pranayaam   |
| 4. | Vegetarian , Vegan and traditional Diets   |
| 5. | Diet for different sports activities- Endurance & power  |

**Paper: C 17**  
**Sustainable Development**  
**M.A (Home Science)**  
**IX Semester**

Instruction hours/week-4  
 Course Type-  
 Theory Major  
 Credit- 4

Max Marks- 100  
 CIE- 25  
 UE- 75

**Objectives -**

- To understand the concept of sustainability and development.
- Critically evaluate the inter linkages of people's participation and sustainable development.
- Understand the community resources and identify the trends in the extent and consequences of utilization.
- To understand the relationship between environmentally sound technologies and sustainability.

| UNIT | COURSE DETAILS  | PERIODS |
|------|---|---------|
| 1    | 1. Sustainability – meaning, concept and implications for development. Sustainable development – concept, philosophy, goals and challenges. | 4       |
|      | 2. Dimensions of sustainable development  | 3       |
|      | 3. Theories of development  | 2       |
|      | 4. Changes in concept of development.   | 3       |
| 2    | People's participation and sustainability   |         |
|      | 1. People's participation – history, concept and controversies,   | 3       |
|      | 2. Types and forms in development initiatives.  | 3       |
|      | 3. Relationship between participation, learning and sustainability, inter linkages of people's participation for                            | 5       |

|   |  |             |
|---|--|-------------|
|   | building local knowledge, capacity of people and local institutions  |             |
| 3 | community resource perspectives<br>1. concepts of resources, national and shared resources, ecological (air, water, fuel, flora and fauna)<br>2. Indicators of environmental unsustainability.   | 4<br>3      |
| 4 | People's initiative and sustainability<br>1. Ecology and resource conservation – concepts, biodiversity, resource conservation methods, renewable energy and resources<br>2. Environmentally sound technologies; their impact on sustainable management of resources, adoption pattern.<br>3. Environment and habitat.<br>Advantages and lacuna in the initiatives of different social structures in sustainable community resource management initiatives | 8<br>5<br>5 |

### Sessional Work

- Study of community resources in the selected area.
- Leadership building
- Capacity building
- Self-reliance for Sustainable development.

### References

- 1- Dale, R. (2000): organization and development strategies, structure and processes sage publication, New Delhi.
- 2- Sinha PC( 1998) international and encyclopedia of sustainable development Vol. 1-20 Anmol publication pvt. Ltd New Delhi.

### Abbreviation:

CIE- Continuous Internal Evaluation.  
UE – University Examination

A130905P

Paper- C 18

Computer Application in Designing

M.A (Home Science)

Semester IX

Course Type: Practical Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 4/Week

Credits: 4

Objectives:-

1. To enable students to learn /acquaint the CAD based application.
2. To understand the work of computers while designing.
3. To develop creativity in designing A.V.Aids.

Practical:

| S.No. | Topics                      | No. of Classes |
|-------|-----------------------------|----------------|
| 1.    | Use of computer peripherals |                |
|       | Scanner                     | 2              |
|       | Printer                     | 2              |
|       | Storage device              | 2              |

|    |  |                                      |
|----|--|--------------------------------------|
| 2. | Use of designing software<br><br>Power point<br>Coral draw<br>Photo Shop<br>Page Maker   | 3<br><br>7<br><br>4<br><br>4         |
| 3. | Planning and preparation of communication material for rural women related to agriculture/ home science<br><br>Slides<br>Leaflet/Folder<br>Booklet/flip Book<br>Cover page of different publications | <br><br>4<br><br>4<br><br>6<br><br>2 |
| 4. | Field testing of developed communication material  | 2                                    |
| 5. | Evaluation of the developed material   | 2                                    |
|    | <b>Total</b>   | <b>44</b>                            |

Reference: List of books related Computer Designing, Coral draw, photo shop and Page maker

1. Computer Graphics and Virtual Reality 2ed Willey Publication by R. K Mourya
2. Photoshop CS6 in Simple Steps by Congent Learning Solution Incorporation
3. Graphic Design Exercise Book - Revised Edition **Author:** Jessica Glaser
4. PageMaker 7 from A to Z **Author:** Marc Campbell Publisher Laxmi Publications
5. CorelDRAW X6 The Official Guide Paperback – by Gary David Bouton

**Abbreviations:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

**Paper – C 19**  
**Research Project**  
**M.A (Home Science)**  
**Semester IX**

CIE – 25 Marks  
UE – 75 Marks

Credits: 4

**Course Content:**

1. Data collection for the Study
2. Interpretation of the data



# Semester X

**A131001T**

**Paper – C 20**

**Ergonomics**

**M.A (Home Science)**

**Semester X**

Course Type: Theory Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 4/Week

Credits: 4

**OBJECTIVES:**

- To become aware of the role of ergonomics in work effectiveness and efficiency.
- To understand the environment factors contributing to safety, control and well-being of individual performing the work.
- To know application of ergonomic consideration in designing of work place.

| Unit – I  | Essentials of Ergonomics  | Periods |
|-----------|---|---------|
|           | (a) Definition, Scope of Ergonomics in home.  | 4       |
|           | (b) Need and importance of Ergonomics.  | 4       |
|           | (c) Components of worker input- Affective, Cognitive, Temporal, Physical.           | 4       |
| Unit – II | Work and Work Environment   |         |
|           | (a) Work component- content of job, analysis of work and amount of house hold work. | 6       |
|           | (b) Knowledge of various environmental factors and their effect-                    |         |

|                   |  |   |
|-------------------|--|---|
|                   | Heat, Noise, Vibration, Light and Atmospheric Pollution.   | 6 |
| <b>Unit – III</b> | <b>Anthropometry and Biomechanics</b>  |   |
|                   | (a) Definition of Anthropometry, Anthropometric consideration and principles.  | 4 |
|                   | (b) Working posture and motions, Common postural problems and factors to be considered, Effect of wrong Posture on body, correct technique of Lifting and Carrying weight. | 6 |
|                   | (c) Body mechanics: Definitions, Principles, Height of work surfaces.  | 4 |
| <b>Unit- IV</b>   | <b>Work place: The Kitchen</b>   |   |
|                   | (a) Workers consideration in work space design.  | 3 |
|                   | (b) Functional design of work place.   | 3 |
|                   | (c) Work centers.  | 3 |
|                   | (d) Component of work place.   | 3 |

### SESSIONAL WORK

- Survey on different types of work center.
- Identifying anthropometric measures and types of posture during work in the kitchen.
- Preparing educational material for incorrect postures.

### References:

- Asrard, P., Roods H.T.K. – Text book of work physiology.
- HauptandFeinleis – Physiology of Movement.
- Nag P.K. – Ergonomics and Work Design.
- Cross man Richard – Ergonomics Pocket Book
- Steidaland Bratton – Work in Home.
- TulandWeerdneester – Ergonomics for beginners.
- Gandtora, Oberoi and Sharma – Essential of Ergonomics.
- Amit Bhattacharya - Occupation Ergonomics.  
and James D. Mcglothlin (Theory and Application)
- Karl H.E.Kroemer and - Office Ergonomics  
Anne D. Kr

10/5

**Abbreviations:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

12/1

## Paper – C 21

Study of Family and Society  
M.A (Home Science)

## Semester X

Course Type: Theory Major

Credits: 4

Teaching Periods: 4/ week

CIE – 25 Marks

UE – 75 Marks

**Objectives:**

1. To understand family as a component of socio-cultural milieu and context.
2. To familiarize student with developmental perspectives in family life cycle.
3. To understand variations in family life patterns.
4. To create awareness regarding philosophy, structure, function, needs and strengths of families with specific reference to the Indian family.

| UNIT-I   | The Family in Social Context   | PERIODS |
|----------|--|---------|
|          | a. The family as a component of social system<br>i. Family as an evolving and dynamic institution<br>ii. Functions of Family                                   | 6       |
|          | b. Types of family- Nuclear, Joint, Extended, Alternate families (Single parent, Female headed families, DINK families, adopted families and live in families) | 6       |
| UNIT- II | Mental Hygiene, Family Disorganization and Legislatives  |         |
|          | a. Mental health, meaning and movement, its importance in family life  | 3       |
|          | b. Family counseling process   | 3       |
|          | c. Divorced and separated families, legislations pertaining to marriage, property and adoption   | 6       |
| UNIT-III | Contemporary Issues and Concerns   |         |
|          | a. Dowry   | 3       |
|          | b. Family violence   | 3       |
|          | c. Family crises   | 3       |
|          | d. Gender and role discrimination  | 3       |
| UNIT- IV | Family and Societal Changes and their Influences on  |         |

|  | <b>Family Working</b>               |          |
|--|-------------------------------------|----------|
|  | a. Working Women in family          | <b>3</b> |
|  | b. Family health issues             | <b>3</b> |
|  | c. Religion and family cohesiveness | <b>3</b> |
|  | d. Ecology and family               | <b>3</b> |

### **Sessional Work**

1. Identification and study of family in relation to societal changes.
  - (a) Working Women
  - (b) Family health issues
  - (c) Ecology and family
2. Case study of three families in different stages of family life cycle and reporting their objectives, needs and adjustment.
3. Seminar Presentation of Five families in distress reported in media

### **References:**

1. Kenkel W.F. 1973 The Family in Perspective (III Edition) Appleton Century Crofts Meredith corporation. New York.
2. Stewart E.W. 1978 sociology – The Human Science Mc Graw Hill Company.
3. Leslie G.R. 1976. The Family in social Context, Oxford University Press New York
4. Duvall E.M. 1962. Family Development J.P. Lippincot Co.
5. Wineh R.F. 1963. The Modern Family. Holt Rinchart and Winston.
6. Adarms B.N. 1975. The family: A sociological Interpretation. Rand Menully Co. Chicago.
7. Ahuja R. 1997 India Social System (IInd Edition) Rawat Publishing Jaipur
8. Lock S.L. 1992. Sociology of the family Prentice Hall London.

### **Abbreviation:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam

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A131003T

**Paper-C 22**  
**Training and Management**  
**M.A (Home Science)**  
**Semester X**

Instruction hours/week-4

Course Type

Theory Major

Credit- 4

Max Marks- 100

CIE- 25

UE- 75

**Objectives -**

- 1) To be aware of the overall goals of designing training programmes for development.
- 2) To understand the different methodologies of Training.
- 3) To conceptualize the training process.
- 4) To develop skills in training programme

| UNITS | COURSE AND DETAILS   | PERIODS |
|-------|--|---------|
| 1     | 1. Concept, need and importance of training.   | 3       |
|       | 2. Principles of Adult Learning.   | 2       |
|       | 3. Facilitation Skills in Training, Paraphrasing summarizing, question asking.           | 3       |
|       | 4. Training Process-phases of training process-Pre-training, training and post-training. | 3       |
|       | 5. Conceptual models of training process-simple elaborated and spiral.                   | 3       |
|       | 6. Participatory and conventional training.  | 3       |
| 2     | Designing Training Programme:  |         |
|       | 1. Need Assessment-concept and techniques.   | 4       |
|       | 2. Designing overall training schedule   | 5       |

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|    |   |                             |
|----|---|-----------------------------|
| 3  | <b>Management of Training Programme</b> <ol style="list-style-type: none"> <li>1. Physical arrangements, selection of participants, selection of trainers/resource persons, aids and equipment transportation, finances, monitoring of training.</li> <li>2. Organizational factors-Working environment, leadership, values, mechanics of change, organizations as socio-technical systems-impact development.</li> <li>3. Developing organizational structures for facilitating micro and macro level interventions for facilitating development.</li> </ol> | 4<br><br><br>4<br><br><br>4 |
| 4. | <b>Evaluation of training</b><br>Issues in evaluation in training, evaluation of learning in terms of gain in knowledge, attitude and skills; measurement of change in behavior in participants; measurement of results/impact of training.   | 10                          |

#### **Sessional Work**

1. Designing training programmes for different developmental goals
2. Developing skills in selection and use of different training methods-case study, role playing, psychodrama, buzz group, group discussion, transactional analysis, process work, micro labs, business games etc.
3. Organizing and conducting training programmes.

#### **References**

1. William R. Tracy, "Designing training & development system" Bombay T. publication.
2. Singh B. Manual, "Advances in Training Technology (manual IARI)"
3. William R. Tracy, "Designing training & development sy

#### **Abbreviation:**

CIE- Continuous Internal Evaluation.  
UE – University Examination.

*108/2*



**Paper-C 23**  
**Food Processing and Preservation**  
**M.A (Home Science)**

**Semester-X**

Course Type: Theory Major

UE – 75 Marks

CIE – 25 Marks

Credits: 4

Teaching Periods: 4/ week

**Objectives :**

- Enabling students to understand the principles and processes involved in food processing
- Familiarizing the students with the technological innovations for various food stuffs.
- Making students aware of the role packaging plays in the delivery of food stuffs.

**CONTENTS**

| UNIT-I   | FOOD PRESERVATION  | PERIODS          |
|----------|--|------------------|
|          | 1. Principles underlying food preservation operations :-<br>i) Thermal<br>ii) Refrigeration and freezing<br>iii) Dehydration<br>iv) Radiation                    | 2<br>2<br>1<br>1 |
|          | 2. Use of chemical additives, ionizing radiations, pickling and curing in preservation.  | 4                |
| UNIT -II | PROCESSING TECHNOLOGY OF FOODS   |                  |
|          | 1. Cereals: Wheat milling process, baking technology, production of bread, barley malting. Rice processing, fractionation, parboiled rice.                       | 4                |
|          | 2. Fruits & Vegetables: Changes during ripening  | 2                |
|          | 3. Canning process of fruits & vegetables  | 2                |
|          | 4. Milk and Milk products: Milk processing, separation, standardization, pasteurization, homogenization, ultrahigh sterile milk.                                 | 4                |
|          | 5. Meat & Fish processing : Rigor mortis, ageing, tenderizing, curing, salting, pickling.  | 2                |
| UNIT-III | FORTIFICATION AND EXTRUSION TECHNOLOGY   |                  |
|          | 1. Fortification Technology<br>- Objectives<br>- Nutritional significance<br>- Selection of Vehicle<br>- Fortification of salt, cereal products & dairy products | 2                |

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|                |  |   |
|----------------|--|---|
|                | 2. Extruded Food: An introduction to extrusion technology  | 2 |
| <b>UNIT-IV</b> | <b>PACKAGING TECHNOLOGY, FOOD LABELLING &amp; FOOD LAWS</b>  |   |
|                | 1. An Introduction to packaging technology <ul style="list-style-type: none"> <li>- Objectives</li> <li>- Basic packaging materials and their protective qualities</li> <li>- Effect of packaging on the nutritive value of foods</li> </ul> | 2 |
|                | 2. FPO and other food laws governing Indian Food Industry  | 2 |

#### References:

- Dey S: Outlines of Dairy Technology, Oxford University Press, Delhi.
- Desrosier NW: Elements of Food Technology, Connecticut, USA: AVI publishing co.
- Mat : Cereal Technology, Connecticut, USA: AVI publishing co.
- Siddapa, GS (1986), Preservation of Fruits & Vegetables, ICAR Publication.
- National Dairy development board, Amul, Milk and Milk products processing
- Gould GW. New Methods of Food Preservation. Blacklie. Academic & Professional, London.

#### Sessional Work

1. Seminar presentation on any topic from syllabus.
2. Academic assessment through short and long questions.
3. Discussions on any topic from entire syllabus.

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A131005P

**Paper- C 24**  
**Food Preservation Techniques**  
**M.A (Home Science)**

**Semester-X**

Course Type: Practical Major

UE – 75 Marks

CIE – 25 Marks

Credits: 4

Teaching Periods: 4/ week

**Objectives :**

- Enabling students to understand the principles and processes involved in food processing
- Familiarizing the students with the technological innovations for various food stuffs.
- Making students aware of the role packaging plays in the delivery of food stuffs.

| PRACTICALS |  |
|------------|--|
| 1.         | Dehydration of fruits and vegetables and shelf life studies: is effect on colour, texture and flavour. |
| 2.         | Preservation of fruits and vegetables using low temperature  |
| 3.         | Preservation of fruits and vegetables using heat, salt and sugar                                       |
| 4.         | Processing of tomato products  |
| 5.         | Processing of Jams, jellies and marmalades   |
| 6.         | Processing of pickles and brines.  |
| 7.         | Prepare simple extruded foods  |

18/11

**A131006R**

**Paper – C 25**  
**Research Project**  
**M.A (Home Science)**  
**Semester X**

CIE – 25 Marks  
UE – 75 Marks

Credits: 4

**Course Content:**

Report writing and finalization of Research project



**PGDR**  
**(Home Science)**  
**(2022)**

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# Semester XI

**A131101T**

**PAPER – C1**

**Thrust Areas of Home Science**

**PGDR (Home Science)**

**Semester XI**

Course Type: Theory Major

CIE – 25 Marks

Teaching Periods: 6/Week

UE – 75 Marks

Credits: 6

**Objectives:**

- To understand the need and significance of Research in different areas Home Science.
- To know the different funding agencies for Research Projects
- To gain the knowledge of different Research Applications in various fields of Home Science

| UNIT- I   | INTRODUCTION TO RESEARCH IN HOME SCIENCE  | PERIODS |
|-----------|---|---------|
|           | Need of research in different fields of Home Science                            | 6       |
|           | Identification of thrust areas of Home Science                                  | 6       |
| UNIT- II  | SIGNIFICANCE OF RESEARCH IN HOME SCIENCE  |         |
|           | Scope and Significance of Research Conducted in different areas of Home Science | 12      |
| UNIT- III | SOURCES AND PRIORITY OF FUNDING AGENCIES FOR PROJECTS AND RESEARCH              |         |
|           | Understanding types of Grant and Funding  | 4       |
|           | National and international funding agencies (UGC, DST, NIPCED, UNICEF, INSA)    | 4       |
|           | Process to get funding for a research project                                   | 4       |
| UNIT- IV  | RESEARCH APPLICATIONS OF HOME SCIENCE   |         |

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|  |   |   |
|--|---|---|
|  | Research Applications of Home Science in formal and informal institutions | 7 |
|  | Relevance of Home Science in Current Era                                  | 5 |

**SESSIONAL WORK:** Assignments related to the respective units

### References:

1. Research Projects and Research proposals. A guide for Students seeking funding by Paul G. Chaplin. Cambridge University Press.
2. Desrosier NW: Elements of Food Technology, Connecticut, USA: AVI publishing co.
3. Principles of Home Science: S.R.Sharma, Vijay Kausik; Anmol Publications PVT. LTD, New Delhi
4. Encyclopedia of Home Science: S. A Srivastava
5. Education and Communication for Development : O. P. Dahama and O.P. Bhatnagar; Oxford & IBH Publishing Co. PVT Ltd. New Delhi
6. Child Development : E. B. Hurlock
7. Human Development: F. P. Rice; Perntice Hall, New Jersey
8. Research Trends in Home Science and Extention: Prakash Singh; Akinik Publications, New Delhi
9. Teaching of Home Science, Seema Yadav; Anmol Publications PVT. LTD. New Delhi

### Abbreviations:

CIE: Continuous Internal Evaluation

UE: University Exam





A131102T

**Paper – C 2**

**Essentials of Entrepreneurship**

**PGDR (Home Science)**

**Semester XI**

Course Type: Theory Major

CIE – 25 Marks

UE – 75 Marks

Teaching Periods: 6/Week

Credits: 6

**Objectives:**

1. The main aims of the course are to familiarize students with various concepts used in understanding processes involved in entrepreneurship and business formation and development.
2. Understand theories of entrepreneurship and business development
3. Understand the key resources required to develop an existing business such as ideas and finance, launch a new venture, or initiate a business enterprise
4. Be able to state, understand and evaluate the key factors needed to develop a successful business
5. Understand the central role of opportunity recognition and marketing to business development

| UNIT- I  | Concept of Entrepreneurship  | PERIODS |
|----------|--|---------|
|          | Definition, Concept of entrepreneurial development, Theory of Entrepreneurial origin, Need for Self Employment     | 3       |
|          | Economic empowerment, Gender discrimination from societal perspective, Status of women in India in the last decade | 3       |
|          | Desired qualities in entrepreneurs   | 3       |
|          | Development of women entrepreneurs in India  | 3       |
| UNIT- II | Establishing a Small Scale Enterprise  |         |
|          | Environment scanning   | 3       |

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|                 |  |   |
|-----------------|--|---|
|                 | Enterprise selection, market assessment, enterprise feasibility study, SWOT analysis | 3 |
|                 | Resource mobilization finance technology, raw material, site and manpower            | 3 |
|                 | Costing, Quality control, profitability and future growth                            | 3 |
| <b>UNIT-III</b> | <b>Operating the Small Scale Enterprise</b>  |   |
|                 | Schemes available for women entrepreneurs  | 4 |
|                 | Financial management issues in SSE- definition and scope                             | 4 |
|                 | Marketing management issues in SSE- marketing strategies and marketing mix variables | 4 |
| <b>UNIT- IV</b> | <b>Project Planning</b>  |   |
|                 | Planning basic concepts, need, and feasibility                                       | 4 |
|                 | Project identification basic goal  | 4 |
|                 | Monitoring and evaluation  | 4 |

#### **SESSIONAL WORK**

1. Prepare case profiles of any five entrepreneurs in India.
2. Review employment trends of women in the organized and unorganized sectors.
3. Visit small enterprises and prepare report on it.
4. Prepare a project plan for any business.

#### **References:**

1. Dr. G.K. Varshney (2019), Fundamentals of Entrepreneurship, Sahitya Bhawan Publication.
2. S A Kumar, S C Poornima, M K Abraham, K Jayshree (2021), Entrepreneurship Development Paperback, New Age International publishers.
3. Charantimath Poornima M.(2018), Entrepreneurship Development and Small Business Enterprises, Third Edition, Pearson Education .
4. Chandra, P. (1992) project preparation, appraisal, budgeting and implementation, Tata Mc graw Hill, New Delhi.
5. Goel, E.B. (1991) project management. Tata Mc graw Hill, New Delhi.

#### **Abbreviations:**

**CIE:** Continuous Internal Evaluation

**UE:** University Exam



**Paper – C3**  
**Research Methodology**  
**PGDR (Home Science)**  
**Semester XI**

Course Type: Theory Major

CIE – 25 Marks

Teaching Periods: 4/Week

UE – 75 Marks

Credits: 4

**Objectives:**

- To understand the significance of Research Methodology in Home Science Research.
- To study the types, tools and Methods of Research and develop the ability to construct data appropriate to the Research Design.
- To be able to appreciate and understand importance of writing scientifically.
- To understand the role of Statistics in Research.
- To apply Statistical Techniques to Research Data for analyzing and interpreting data meaningfully.
- To understand the use of Statistical Software in the analysis of data.

| UNITS   | COURSE AND DETAIL  | PERIODS |
|---------|--|---------|
| UNIT- I | <b>INTRODUCTION TO RESEARCH</b><br><br>Research Methodology, Meaning of Research, Scientific Thinking, Objectives of Research, Types of research- analytical, applied fundamental, quantitative and qualitative, Conceptual and Empirical, Significance of research, Criteria of good research, Basis of selection of the broad areas of research, selection of Institute, selection of research supervisor, Major research centers in India. Ranking Institutions (Criteria and Selection Procedure), Problems encountered by researchers in India. | 12      |

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|          |  |   |
|----------|--|---|
| UNIT- II | <p align="center"><b>IDENTIFYING THE RESEARCH PROBLEM</b></p> <p>(a) What is research problem, Selection of the problem, Technique involved in defining a problem, Formulation of hypothesis, Meaning and need for research design, Research Designs- Exploratory, Descriptive, Experimental and Historical. Basic principles of research design, Execution of the research.</p> <p>(b) Sampling techniques, pilot study, Qualitative and Quantitative Data, Scaling and Measurement Techniques- Likert, Guttman and Thustone scale, testing of validity and reliability.</p>  | <p align="center">7</p> <p align="center">5</p>                         |
| UNIT-III | <p align="center"><b>DATA GATHERING INSTRUMENTS/ TOOLS AND ANALYSIS OF DATA THROUGH COMPUTER APPLICATIONS</b></p> <p>Collection and analysis of data, Data Analysis by using of computer software ( Excel, SPSS) - Coding, Tabulation, measures of central tendency, measures of dispersion, correlation, regression and test of significance (Z-Test, t-Test, Chi-Square test, F –test, ANOVA ).</p>  | <p align="center">12</p>  |
| UNIT- IV | <p align="center"><b>(a) INTERPRETATION AND REPORT WRITING</b></p> <p>Meaning of Interpretation, Necessity of interpretation, Techniques and precautions in Interpretation, Significance of report writing, Research papers and reviews, Different steps in writing report, Layout of the research report, precautions of writing research reports, developing a research proposal, Basic knowledge of organizing conferences, symposia, workshop, and exhibitions.</p> <p align="center"><b>(a) LITERATURE SURVEY</b></p> <p>References, Abstraction of a research paper, possible ways of getting oneself abreast of current literature, High rank Journals, Impact Factors, h – factor, Citation Index.</p> <p align="center"><b>(b) SCIENCE AND ETHICS</b></p> <p>Intellectual property and Intellectual property rights, Indian patent system, Research agreement, Ethical theory and applications, Ethical issues in science research and reporting the problem of plagiarism and related issues, International norms and standards.</p> | <p align="center">4</p> <p align="center">4</p> <p align="center">4</p> |

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## SESSIONAL WORK

- Prepare a research plan of any field of Home Science.
  - Prepare a Schedule/Questionnaire of the related topic using scaling techniques.
- Gathering information from pilot survey and make a sample master chart for analysis.

### References:

1. Research Methodology, Methods and Techniques. C.R. Kothari, New Age International (P) Limited Publishers.
2. Research Methodology – Deepak Kumar Bhattacharya Excel Books.
3. The Ethics of Science: An Introduction. David B Resnik, Routledge Publisher, USA.
4. Ethical values for Excellence in Education and Science. J.N. Kapur. VishvaPrakashan, New Delhi.
5. OSU Safety Manual 1.01
6. Practical skills in Chemistry, JR Dean, AM Jones, D. Holmes, R. Read, J. Weyers and A. Jones. Pearson Education Ltd. (Prentice Hall).
7. The Student's Guide to Preparing Dissertations and Thesis. London: Kogan.
8. MLA Handbook for writers of research papers, East West Press, New Delhi.
9. Thesis Writing: A manual for Researchers. New Age International Ltd.
10. Write and publish a scientific paper by Robert A. Day Oryse Press.
11. Research Projects and Research proposals. A guide for Students seeking funding by Paul G. Chaplin. Cambridge University Press.
12. Write Mathematics Right: L Radhakrishnan, Narosa.
13. Satarkar, S.V. (2000), Intellectual Property Rights And Copy Right, Ess Ess Publications.

### Abbreviations:

CIE: Continuous Internal Evaluation

UE: University Exam

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# Research Project (Qualifying)

187