



Kamla Nehru Institute of Physical and Social Sciences,

Sultanpur U.P. India

(An Autonomous Institute) Affiliated to Dr. Ram Manohar Lohia Avadh University Ayodhya U.P.



Accredited "A" Grade by NAAC

**New education policy 2020
Structure of Syllabus for the
B.Sc. Home Science NEP Syllabus**

Syllabus developed / proposed by:

| S. No. | Name | Designation | Department | College / University |
|--------|------------------------------------|-----------------------------------|--------------|--|
| 1. | Dr. Mamta Jaiswal | Convenor | Home Science | K.N.I.P.S.S., Sultanpur |
| 2. | Dr. Pushpa Maurya | Member | Home Science | K.N.I.P.S.S., Sultanpur |
| 3. | Dr. Seema Dubey | Member | Home Science | K.N.I.P.S.S., Sultanpur |
| 4. | Prof. Sadhana Singh | Member (Nominee Academic Council) | Home Science | Dean , faculty of Home Science, A.N.D.U.A.T., Kumarganj, Ayodhya |
| 5. | Dr. Babita Verma | Member (Nominee Academic Council) | Home Science | A.N.D.U.A.T., Kumarganj, Ayodhya |
| 6. | Dr. Deepa Verma | Member (Nominee V.C. , Dr. RMLAU) | Home Science | Rajkiya Mahavidyalaya, Hansaur, Barabanki |
| 7. | Shri. Baldev Singh (Industrialist) | Member (nominated principal) | NA | Punjabi Colony, Kurwar Naka, Sultanpur |
| 8. | Shri. Jagjeet Singh (Ex- Student) | Member (nominated principal) | NA | Near Vijay Deluxe, Laldiggi, Sultanpur |

Sandhya Singh
10.9.23

Sandhya Singh
10/9/23

Kajal
10/9/23

Pranshu
10/9/23

Arjun
10.9.23

Sandhya Singh
10.9.23

Sandhya Singh
10.09.2023



**Kamla Nehru Institute of Physical &
Social Sciences, Sultanpur (UP)-228118**

(An Autonomous Institute)

'NAAC - 'A' Grade'

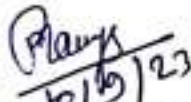
Structure of syllabus for the program

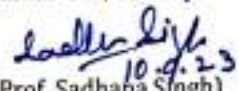
B.Sc.: Subject- Home Science

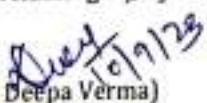
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| 7. | Sri Baldev Singh (Industrialist) | Member (Nominated Principal) | NA | Punjabi Colony, Kurwara Naka, Sultanpur |
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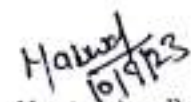
As per syllabus development guidelines of Higher Education for UG Course-

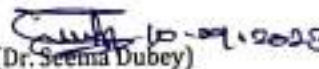

(Dr. Pushpa Maurya)
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(Prof. Sadhana Singh)
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Dean, Faculty of Home Science,
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(Dr. Deepa Verma)
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Member
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Member (Nominee Academic Council)
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Kamla Nehru Institute of Physical and Social Sciences,
Sultanpur U.P. India
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**New education policy 2020
Structure of Syllabus for the
B.Sc. Home Science NEP Syllabus**

Syllabus developed / proposed by:

| S. No. | Name | Designation | Department | College / University |
|--------|------------------------------------|-----------------------------------|--------------|--|
| 1. | Dr. Mamta Jaiswal | Convenor | Home Science | K.N.I.P.S.S., Sultanpur |
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| 6. | Dr. Deepa Verma | Member (Nominee V.C. , Dr. RMLAU) | Home Science | Rajkiya Mahavidyalaya, Hansaur, Barabanki |
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| 8. | Shri. Jagjeet Singh (Ex- Student) | Member (nominated principal) | NA | Near Vijay Deluxe, Laldiggi, Sultanpur |

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Upadhyay
10/3/23
Sadhana Singh
10.9.23
Prasanna
10/9/23

Programme Objectives:

The objective of the Course is to develop responsive and responsible home-makers and skillful, talented, productive citizens of the nation with high potential and professionalism by imparting knowledge in various areas of Home Science and creating suitable attitude for the same. The major objectives are:

- Women empowerment
- Skill development and enhancement
- Capacity building
- Entrepreneurial development
- Student centric and job oriented course

Learning outcomes:

In contemporary times, Home Scientists promote capacity building of individuals and communities for social and economic empowerment. They train community women and youth from various strata of society for entrepreneurship. Many Home Scientists have done exceptionally well as entrepreneurs themselves. They do not remain job seekers but have also become job creators. They gain and provide employment in research organizations, food and textile industries, dietetic practice, education and child development domains, accreditation of green buildings, strategic planning and communication technologies. Years of national and international experience in the field has contributed to the wisdom that all the five windows of opportunity that Home Science offers be opened for i.e. Food and Nutrition, Human Development, Resource Management, Extension and Communication and Fabric and Clothing and Textile. In this course, the students will learn the fundamental principles and foundations of all the five areas. They are expected to internalize the principle of a Home Scientist, that is, to give back to the community from which they draw, for sustainable development.

- Understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities
- Understand the sciences and technologies that enhance the quality of life of people
- Acquire professional and entrepreneurial skills for economic empowerment of self in particular, and community in general
- Develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development
- Take science from the laboratory to community.



Course Content-

- **Core Courses I –IV Semester-** 3 Core Courses of 06 credit each [**18 x 4 = 72 Credits**]
- **Core Courses V –VI Semester-** 8 Core Courses of credit each [**20x2 = 40 Credits**]
- **Minor Elective I-IV Semester-**2(paper) 1 in each year of any semester[**4x2=8Credits**]
- **Vocational I-IVSemester-**1 paper in each semester (**4X3=12 Credits**)
- **Co-curricular (Qualifying)- I –VI -1** paper in each semester (**6X0=0 Credit**)
- **Research Project-** I and II (Qualifying) V and VI semester (**8 Credits**)

Total Credits – 132

- **I Year -Certificate in faculty-** 46 Credits
- **II Year- Diploma in faculty-** 92 Credits
- **III Year- Bachelor in faculty-** 132 Credits

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|------------------|----------------------------|
| Group – 1 | Food & Nutrition |
| Group – 2 | Child Development |
| | Extension Education |
| Group -3 | Family Resource Management |
| | Clothing & Textile |

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Sadhvi *[Signature]*

Course Structure of B.Sc. Home Science

| Year | Sem. | Course code | Subject | Paper title | credit T/P | Evaluati on CIE+UE |
|---------|------|-------------|---------------|--|------------|--------------------|
| I Year | I | HSFN - 111 | Core1 | Fundamentals of food and human physiology | 4+2 | T-25+75 P-50+50 |
| | | HSCD - 112 | Core2 | Life Span Development | 4+2 | T-25+75 P-50+50 |
| | | HSCT - 113 | Core3 | Fundamentals of clothing and Textiles | 4+2 | T-25+75 P-50+50 |
| | | | Vocational | As available | 0+3 | Qualifyi ng |
| | | | Core4 | Food, Nutrition and Hygiene | - | Qualifyi ng |
| | | | Minor | Offered by other department | 4+0 | Qualifyi ng |
| | II | HSFN – 121 | Core1 | Nutrition Science | 4+2 | T-25+75 P-50+50 |
| | | HSFRM – 122 | Core 2 | Family Resource management | 4+2 | T-25+75 P-50+50 |
| | | HSEE - 123 | Core 3 | Home Science extension extension education and Communication | 4+2 | T-25+75 P-50+50 |
| | | | Vocational | As available | 0+3 | Qualifyi ng |
| | | | Co-curricular | First Aid and Health | - | Qualifyi ng |
| | | | Minor | Offered by other department | 4+0 | Qualifyi ng |
| II year | III | HSFN – 211 | Core 1 | Nutrition During Life Cycle | 4+2 | T-25+75 P-50+50 |
| | | HSCA - 212 | Core 2 | Computer Application Research Methodology | 4+2 | T-25+75 P-50+50 |

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| | | HSCT - 213 | Core 3 | Basics of Clothing Construction | 4+2 | T-25+75 P-50+50 |
| | | | Vocational | As available | 0+3 | Qualifying |
| | | | Co-curricular | Human values and Environment studies | - | Qualifying |
| | | | Minor | Offered by other department | 4+0 | Qualifying |
| | IV | HSFN - 221 | Core 1 | Food Preservation & Microbiology | 4+2 | T-25+75 P-50+50 |
| | | HSEE - 222 | Core 2 | Entrepreneurship | 4+2 | T-25+75 P-50+50 |
| | | HSCT - 223 | Core 3 | Fabric Construction and Finishing | 4+2 | T-25+75 P-50+50 |
| | | | Vocational | As available | 0+3 | Qualifying |
| | | | Co-curricular | Human values and Environment studies | - | Qualifying |
| | | | Minor | Offered by other department | 4+0 | Qualifying |
| III year | V | HSFN - 311 | select any two groups from Group 1-3 | Group 1 | 4+2 | T-25+75 |
| | | HSFN - 312 | | <ul style="list-style-type: none"> Therapeutic Nutrition | 4+0 | P-50+50 |
| | | HSCD - 313 | | Group 2 | 4+2 | T-25+75 |
| | | HSEE - 314 | | <ul style="list-style-type: none"> Early Childhood Care and Education Extension Training Management | 4+0 | T-25+75 |
| | | HSFRM - 315 | | Group 3 | 4+2 | T-25+75 |
| | | HSCT - 316 | Project | <ul style="list-style-type: none"> Consumer Economics Advance Garment | 0+4 | T-25+75 |

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| | | HSRP - 317 | | Construction | | T-25+75 P-50+50 Qualifying |
| | VI | HSFN - 321 | select any two groups from Group 1-3 | Group 1 | 4+0 | T-25+75 |
| | | HSFN 322 | | <ul style="list-style-type: none"> Community Nutrition | 4+2 | T-25+75 P-50+50 |
| | | HSEE - 323 | | <ul style="list-style-type: none"> Food Service Management | 4+2 | T-25+75 P-50+50 |
| | | HSCD - 324 | | Group 2 | 4+0 | T-25+75 |
| | | | | <ul style="list-style-type: none"> Community development & education | | |
| | | HSCT - 325 | | <ul style="list-style-type: none"> Theories of Human Development | 4+0 | T-25+75 |
| | | HSFRM - 326 | | Group 3 | 4+2 | T-25+75 P-50+50 |
| | | | Project | <ul style="list-style-type: none"> Traditional Textiles of India | 0+4 | Qualifying |
| | | HSRP - 327 | | <ul style="list-style-type: none"> Interior Designing and Decoration | | |
| | | | | <ul style="list-style-type: none"> Research Project - II | | |

Dr. Jey
Dr. I
Dr. Senthil
Dr. Prap
Dr. Sankar
Dr. Harish

| Program/Class: Bachelor in Home science | Year: I | Semester: I (Paper I) |
|--|--|------------------------|
| Subject: Home Science | | |
| Course Code: HSFN - 111 | Course Title: Fundamentals of food and human physiology 6(4+2) | |
| Course Objectives: | | |
| <ul style="list-style-type: none"> • Comprehend relationship between food, nutrition and health. • Develop understanding about the methods of preparing food. • Gain the basic knowledge of human anatomy and physiology. Define the main structures composing human body. | | |
| Course outcomes: | | |
| After completion of this course, a student will be able to | | |
| <ul style="list-style-type: none"> • Understand the functions of food, basic concepts of food groups and balanced diet. • Understand the selection, nutritional contribution the commonly consumed foods • . Explains structure and functions of cells, tissues and organs, systems of the human body • Relates structure and functions of tissue. | | |
| Credits:6(4+2) | | Core Compulsory |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | |
| Unit | Topics | No. of Lectures |
| I | Basic concepts in food and nutrition <ul style="list-style-type: none"> • Concept of nutrition and health. define balanced diet, recommended dietary allowances (RDA), functional food, fortified food, phytochemicals, nutraceuticals, dietary supplements • Relationship between food, nutrition and health • Functions of Food-Physiological, psychological and social | 08 |
| II | <ul style="list-style-type: none"> • Food Groups and food guide pyramid and its importance, • Objectives of cooking, processing, preservation, methods of cooking (Dry, moist and combination) with their merits and demerits. • Effect of cooking and heat on nutritive value of foods | 08 |

Dr. Jyoti

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Dr. Sushil
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| III | <ul style="list-style-type: none"> • Introduction to Human body: Organs, tissue and cell, cell structure, cellular organelles and their functions, skeletal system. • Blood and Lymphatic System: Blood - Composition and functions, plasma Protein -Composition and functions. | 10 |
| IV | <p>Digestive system:</p> <ul style="list-style-type: none"> • Overview of the Gastrointestinal Tract, organization and functions of digestive system | 10 |
| V | <p>Cardiovascular system:</p> <ul style="list-style-type: none"> • Structure and function of heart, blood vessels (systemic, pulmonary, and portal), Blood pressure (Definition and factors affecting) <p>Respiratory Physiology:</p> <ul style="list-style-type: none"> • General overview of the respiratory passage, structure and functions. | 14 |
| VI | <ul style="list-style-type: none"> • Endocrine System: Overview of endocrine system, functions of endocrine glands: Pituitary, Thyroid, Parathyroid, Adrenal Glands, sex and Pancreatic hormone • Reproductive system: Structure and function of uterus and ovaries. Menstruation and Menopause | 10 |
| Practical | <ul style="list-style-type: none"> • Identification and use of different kitchen items and equipment • Knowledge of different food stuffs in English, Hindi and local language. • Different Styles of cutting fruits & vegetables • Salad Decorations & Dressings • Determination of pulse rate in resting condition and after exercise (30 beats/10 beats method) • Determination of blood pressure by Sphygmomanometer (Auscultator method). • Detection of Blood group (Slide method). • Measurement of Hemoglobin level (Sahli's or Drabkin method). | |

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RECOMMENDED READINGS:

- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition.
- Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2007). Food Science, 4th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition.
- Mosby, Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi, 2015
- Dr Deepa Verma and Dr Rajeshwari Pandey (2021) Uchch poshan ewam manav vikas (Advance Nutrition and human development), Sahitya Prakashan
- Dr. vrinda singh, (2020). Aahar vigyan evam poshan (Dietetics & Nutrition)
- Dr. Reena Khanuja, (2012). Aahar Evam Poshan Vigyan
- Das, A. (2004) Medical Physiology-Vol. I and II 3rd Books and Allied (P) Ltd.
- Tortora, G.J and Grabowski, S.R. (2000) Principles of Anatomy and Physiology.9th ed. John Wiley and Sons.Inc.
- Chaudhari S K. (2000) Concise Medical Physiology.3rd Edition. Central
- Mahapatra, A.B.S. (2003): Essentials of Medical Physiology.3rd Edition. Current BooksInternational

Dr. Verma *Dr. Rajeshwari* *Dr. Mathur*
Dr. V. Singh *Dr. R. Khanuja* *Dr. Das*

| Program/Class: Bachelor in Home science | | Year: I | Semester: I (Paper 2) |
|---|--|-------------------------------------|------------------------|
| Subject: Home Science | | | |
| Course Code: HSCD - 112 | | Course Title: Life Span Development | |
| Course Objectives: | | | |
| <ul style="list-style-type: none"> • Develop an understanding about the need and importance of studying human growth and development across life span • Develop professional attitude for working with human beings across life span | | | |
| Course outcomes: | | | |
| After completion of this course, a student will be able to | | | |
| <ul style="list-style-type: none"> • Learn about the biological and environmental factors that affect development • Learn about the characteristics, needs and developmental tasks of different stages in the human life cycle • Understand the different theoretical frameworks fundamental to HDFS • Learn about the classic human development theories | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Prenatal, perinatal and postnatal stages- Issues and scientific concepts associated with conception, pregnancy, prenatal development, labor/ birth, postnatal life. • Infancy- physical, motor, social, emotional, cognitive and language characteristics. | | 15 |
| II | <ul style="list-style-type: none"> • Physical, motor, social, emotional, cognitive and language characteristics. Stimulating approaches for optimizing development during: Early Childhood, Early Childhood, Adolescence, Adulthood, Old age. Decline of language in the aged (Speech impairment and disorders). | | 15 |
| III | <ul style="list-style-type: none"> • Development stages of play: Play as means of development and learning. Social dimension of play, unoccupied behaviour, onlooker behaviour, solitary play, parallel play, associative play and co-operative play. | | 15 |



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| IV | <ul style="list-style-type: none"> • Marriage: Meaning, definition, purpose, motives, functions and types of marriage. Laws related to marriage and family. Stages of family life cycle; | 15 |
| Practical | <ol style="list-style-type: none"> 1. Observing children indifferent situations, recording the observations, analyzing the observations and writing report 2. Assessment of physical development of children 3. Assessment of motor development of children: gross motor skills, fine motor skills 4. Assessment of social behavior 5. Plan and develop activities to facilitate development in different domains 6. Prepare play materials and teaching aids for children 7. Observational visits to baby clinic to observe full term and preterm babies. | |

RECOMMENDED READINGS

1. Rice, F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice Hall.
2. Rutter, M. and Rutter, M. (1992) Developing Minds. Challenge and continuity across the life span. London: Penguin.
3. Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: TataMcGraw- Hill.
4. Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. NewDelhi: Orient BlackSwan.
5. Tennant, M. and Pogson, P. (1995) Learning and Change in the Adult Year, San Francisco: Jossey-Bass.



| Program/Class: Bachelor in Home science | | Year: 1 | Semester: 1 (Paper 3) |
|--|--|--|------------------------|
| Subject: Home Science | | | |
| Course Code: HSCT - 113 | | Course Title:- Fundamentals of clothing and Textiles | |
| Course Objectives: <ul style="list-style-type: none"> • Fundamental understanding of Textiles. • Knowledge development regarding various types of basic textiles fibres. • Learning development regarding processes involved in yarn manufacture. • Comprehension development regarding use of various types of fibers and yarns. | | | |
| Course outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> • Learning development regarding processes involved in yarn manufacture. • Comprehension development regarding use of various types of fibers and yarns. | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Basics of textile and clothing • Scope and importance of textile and clothing • Importance and function of clothes and factors affecting clothing choices • Terminologies used in textile and clothing. | | 15 |
| II | <ul style="list-style-type: none"> • Yarn: definition and basic concepts, types and properties • Manufacturing process: Mechanical spinning and Chemical Spinning • Yarn numbering system-count, denier, Tex • Twists in yarns, Textured yarns, Fiber blends • The effect of yarn on the finished fabrics | | 15 |

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| III | <ul style="list-style-type: none"> • Definition and Classification of textile fibers • History, manufacture, properties (physical, chemical and microscopic) and importance of following textile fibers: • Natural Fibers: Protein: wool, silk Cellulose: cotton, linen Mineral : Asbestos | 15 |
| IV | <ul style="list-style-type: none"> • Man-made/Synthetic Fibers: Cellulose: Rayon Polyamide: Nylon Polyester Acrylic and Mod acrylic Olefin Elastomeric Mineral: Glass, Metallic | 15 |
| Practical | <ol style="list-style-type: none"> 1. Study of general physical properties of fibers 2. Fiber identification: Identification of natural and manmade fibers appearance microscopic test, burning test and solubility test. 3. Study of effect of various acids on fibers 4. Study of effect of various alkalis on fibers 5. Collection and study of various types of Yarns. 6. Study of S twist and Z twist | 10 |

RECOMMENDED READINGS

1. Dantiyagi, S. (1996). Fundamentals of Textiles and their Care. India: Orient Black swan Private Limited.
2. D'Souza, N. (2014). Fabric Care. New Delhi: New Age International Publishers.
3. Greaves, P.H., Saville, B. P. (1995). Microscopy of textile fibres. bios Scientific Publishers
4. Gohl, E., Vile sky, L. (2003), Textile Science: an explanation of fiber properties (2 edition), New Delhi.
5. Hollen, R. N., Saddler, J., & Langford, A. (1979). Textiles. Macmillan Publishers.

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6. Joseph, M. (1992), Introductory Textile Science. Sixth edition, California: Harcourt College Publishers
7. Rastogi, D., & Chopra, S. (2017). Textile Science, India: Orient Blackswan Private Limited
8. Dr. Reena Khanooja, Vastra Vigyan evam paridhan.
9. Dr. Reena Khanooja, Vastra Vigyan ke Siddhant.
10. Dr. Pramila Verma. Vastra Vigyan evam Paridhan.
11. Dr Deepa Verma and Monica Tiwari (2021) vastra vigyan ,paaidhan evam parivarik sansadhan vywastha, Sahitya Prakashan

Dinesh
 Manoj
 Sushil
 Anjali
 Anjali
 Anjali

| Program/Class: Bachelor in Home science | | Year: I | Semester: II (Paper 1) |
|--|---|---------------------------------|-------------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 121 | | Course Title: Nutrition Science | |
| Course Objectives: <ol style="list-style-type: none"> To study the bio-molecules present in biological system of energy metabolism and its nutritional aspects. To study the chemical/biochemical properties of carbohydrates, lipids, and proteins. To study the functional role of proteins. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> Learn to examine the functional role of vitamins and minerals. understand the research techniques used in basic biochemistry and nutritional biochemistry research | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | No. of Lectures | |
| I | Carbohydrate: <ul style="list-style-type: none"> Importance and classification. Structures of Monosaccharides, Disaccharides and Poly saccharides. Carbohydrate metabolism, glycolysis, gluconeogenesis, glycogenesis, glycogenolysis, blood sugar regulation, Inborn errors of metabolism Factors affecting energy requirements. BMR, PAL, SDA Digestion and absorption of Carbohydrates. | 10 | |
| II | Lipid: <ul style="list-style-type: none"> Definitions and classification of lipids Types and properties of fatty acids Ketone bodies and ketosis & significance of cholesterol Digestion and absorption of Fat | 10 | |

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| III | <p>Protein:</p> <ul style="list-style-type: none"> • Definition, classification and properties of amino acids • Proteins quality: methods of assessment, Factors affecting protein bioavailability • Urea cycle • Digestion and absorption of Protein. | 10 |
| IV | <p>Vitamins – Functions, and biochemical role:</p> <ul style="list-style-type: none"> • Fat soluble vitamins – A, D, E and K • Water soluble vitamins – B and C <p>Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients</p> | 10 |
| V | <p>Minerals:</p> <ul style="list-style-type: none"> • Biological role of inorganic elements – iron, calcium, phosphorous, iodine, selenium and zinc • Functions, dietary sources and clinical manifestations of deficiency/ excess of the following nutrients: Minerals – Calcium, Iron, Phosphorus, Iodine, Selenium & Zinc <p>Enzymes: Classification and properties of Enzymes, Water: electrolyte and acid base balance</p> | 10 |
| Practical | <ul style="list-style-type: none"> • Qualitative Tests for reducing and non-reducing sugars in foods • Estimation of ascorbic acid content of foods by titrimetric method • Identification of different types of tissues (permanent slides) • Identification of different types of blood cells -slide preparation • Monitoring of heart beat, pulse rate and blood pressure | |

Shrey
Mahesh

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RECOMMENDED READINGS

- Deepa verma; (2016) Fal evam sabji parirakshan: Ayushman publication, New delhi
- Sehgal, S., Grewal, R.B., Kawatra, A. and Kaur, Y. (1997). Practical Aspects of Food Preservation. Directorate of Publications, Haryana Agricultural University, Hisar.
- Vijay K., (1999), Text book of Food, Storage and Preservation, Kalyani Publishers, New Delhi.
- Kalia, M. and Sood, S. (2010). Food Preservation and Processing. Revised Edition, Kalyani Publishers, New Delhi.
- Jood, S. and Khetarpaul, N. (2002), Food Preservation, Geeta Somani Agrotech Publishing Academy, Udaipur.
- Swaminathan M.-(1985) Essentials of food and nutrition Vol. I & II, Ganesh & Co. Madra.
- Gopalan C. – et. al., (1991) Nutrition Value of Indian Foods, Indian Council of Medical Research, (1989).
- Nutrition Requirements and Recommended Dietary Allowance for Indian, New Delhi.
- FAO/WHO/UNO- Technical Report-Series 724 (1985) Energy and Protein Requirement Geneva.
- WHO – Technical Report Series for Different Nutrition
- Lehninger A L, Nelson D L and Cox M M (2009). Principles of Biochemistry, 6th Ed. CBS Publishers and Distributors.



Handwritten signatures of five individuals, likely authors or reviewers, arranged in a cluster. The signatures are: Anshu (top), Mahesh (right), Anshu (middle), Anshu (bottom), and Anshu (left).

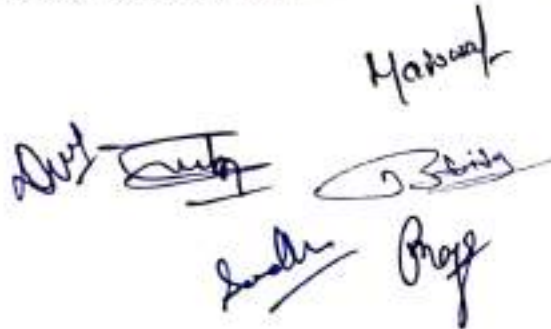
| Program/Class: Bachelor in Home science | | Year: I | Semester: II (Paper 2) |
|--|--|--|-------------------------|
| Subject: Home Science | | | |
| Course Code: HSFRM - 122 | | Course Title: Family Resource Management | |
| Course Objectives: <ul style="list-style-type: none"> • Comprehend the fundamentals of resource management in changing scenario. • Familiarize the students with the available resources, their uses and conservation. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • To utilize resources in a prudent manner. • Understand the processes of management in a scientific manner in the use of resources. | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Introduction to management: Basic concepts of management, Purpose of Management • Obstacles to the improvement of management Lack of awareness of management, Lack of awareness of resources, Failure to evaluate result of management, Lack of information, Seeking readymade answer to problems | | 15 |
| II | <ul style="list-style-type: none"> • Management Process: planning, controlling, evaluation etc. • Factors motivating management: Goal-definition, types and utility, Values- importance, sources of values, classifications, characteristic, changing values, Standards-definition, classification | | 15 |
| III | Decision making: Role of decision making in management, Steps in decision making Resources in the family: Classification, Factors affecting the use of resources, The family life cycle | | 15 |



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| IV | <ul style="list-style-type: none"> • Money Management: Family income, Expenditure, Family budget, Savings • Time management: Importance and Tools in time management • Work simplification- importance, steps, advantages and disadvantages, principles, techniques, Mundell's Classes of change in method of work | 15 |
| Practical | <ol style="list-style-type: none"> 1. Application of management process to organize an event – planning, organization, evaluation. 2. Listing out human and non – human resources, listing community resources 3. Preparation of resource book | |

RECOMMENDED READINGS:

- Nickell & Dorsey: Management in Family Living
- Gross & Crandle: Management for Modern families
- Vargese: Introduction to Home Management
- Dr. Manju Patni. Vastra vigyan, paridhan ewam pariwarik sansadhan vayastha (Clothing, textiles and family resource management), Star Publications.
- Dr Deepa Verma and Monika Tiwari (2021) Vastra vigyan, paridhan ewam pariwarik sansadhan vayastha (Clothing, textiles and family resource management), Sahitya Prakashan
- Manju Patni. Grih Prabandhan
- Dr. Reena Khanuja, Grih Prabandha, Sadhan vayastha ewam aantarik sajja.



 The block contains several handwritten signatures in blue ink. One signature is clearly legible as 'Manju Patni'. Other signatures are less legible but appear to be 'Sudha' and 'Prage'.

| Program/Class: Bachelor in Home science | | Year: I | Semester: II (Paper 3) |
|--|--|--|-------------------------|
| Subject: Home Science | | | |
| Course Code: HSCEE - 123 | | Course Title: Home Science Extension Education and Communication | |
| Course Objectives: <ul style="list-style-type: none"> • Gain knowledge on the need and importance of extension education and its significance in exchange of information • Scope and importance of Home Science Extension Education • Acquire knowledge on the extension models and approaches | | | |
| Course outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> • Understand about extension techniques • Able to extend knowledge in rural and urban areas. | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | No. of Lectures | |
| I | <ul style="list-style-type: none"> • Concept, Meaning, origin, history and importance of Extension Education with special reference to Home Science • Principles, scope, Goals, objectives and philosophy of Extension Education • Home Science Education as empowerment, Theinterdisciplinary role of Home Science Education | 15 | |
| II | <ul style="list-style-type: none"> • History and scope of Home science education • Extension worker- Role and Qualities of home science extension worker • Types of Education, differences between formal, informal and non-formal education ,Characteristics and features of extension education | 15 | |

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Pragya

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| III | <ul style="list-style-type: none"> Teaching Learning process: Meaning and Definition of Teaching, Learning, Learning experience and Learning situation, Elements of learning situation and its characteristics, Principles of learning and their implication for teaching. Motivation, needs, cone of experience | 10 |
| IV | <ul style="list-style-type: none"> Concept of development communication Meaning, scope, importance, nature, level and purpose of communication in development | 10 |
| V | <ul style="list-style-type: none"> Communication process- concept, importance and elements Theories and models of communication Methods of communication to reach individuals <ul style="list-style-type: none"> Individual, Group and Mass methods: types and characteristics, Selection, preparations, use and evaluation of the above methods | 10 |
| Practical | <ul style="list-style-type: none"> Interaction with villagers and understand the felt and unfelt need Visit to a community organization/women development and understand the organizational structure and Interact with the staff and understand their functions Use Supportive techniques – secondary sources, direct observation, and semi structured interviews, case studies and stories, drama, games, role play, workshops etc. as per the situation Develop common information materials | |

RECOMMENDED READINGS:

- Reddy A : Extension Education, Bapatia, India, Sri Laxmi Press
- WHO- Education for Health
- Gorges, Alan Teaching Adults in Extension Education
- Ray, G. L. (2003), Extension Communication and Management. Kalyani Publishers.
- Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
- Sandhu, A.S. (1993) Textbook on Agricultural Communication: Process and Methods. Oxford and IBH Publishing Co. Pvt. Ltd.
- Manju Patni, Prasaar Siksha ewam sanchar
- Huma Zaidi. Introduction To Home Science. Omega Publications



| Program/Class: Bachelor in Home science | | Year: II | Semester: III (Paper 1) |
|---|---|---|--------------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 211 | | Course Title: Nutrition During Life Cycle | |
| Course Objectives: <ul style="list-style-type: none"> • Understanding the basic concept of balance diet, principles of meal planning, food pyramid. • Acquire knowledge about the nutritional needs of an individual through the life cycle. • Competent in calculating nutritive value of food product. | | | |
| Course outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> • Gain knowledge of nutrition consideration, guidelines, food selection for different age groups, activity levels and income groups. • Able to provide balanced meal to different age groups and physiological conditions. | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Basic concepts and importance meal planning: Factors affecting meal planning, Dietary guidelines for Indians • Hormonal and Physiological changes, RDA and selection of food during pregnancy and lactation. | | 15 |
| II | <ul style="list-style-type: none"> • Complications of pregnancy and their nutritional management, impact of nutrition on the outcome of pregnancy. • Psycho-physiology of lactation; milk synthesis and secretion, maternal needs during lactation, composition of colostrums and mature human milk. | | 15 |
| III | <ul style="list-style-type: none"> • Nutrition during Infancy- on physical and mental development, Weaning and supplementary foods. Nutritional disorders and common ailments in infancy • Nutrition during childhood: Growth standards, nutritional guidelines & nutritional concerns, RDA and selection of food for Infants&Preschool children, | | 15 |

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| IV | <ul style="list-style-type: none"> Nutritional guidelines, RDA and selection of food for School children & Adolescents Nutrition during the adult years and old age.: RDA, sex and different activities, food selection | 15 |
| Practical | <ul style="list-style-type: none"> Use of Food Composition Table and food exchange list for meal planning Planning and preparation of diets for <ol style="list-style-type: none"> Pregnant and Lactating woman Weaning food Preschool child School age child and adolescents packed lunches for preschoolers and school children, adolescent boys and girls, Young adult Elderly Sensory evaluation of all the developed products | |

RECOMMENDED READINGS:

- Seth V and Singh K (2006). Diet Planning through the Life Cycle: Part I Normal Nutrition. A Practical Manual. Elite Publishing House Pvt. Ltd. New Delhi.
- Gopalan C, Rama Sastri BV, Balasubramanian SC (1989) Nutritive Value of Indian Foods. National Institute of Nutrition, ICMR, Hyderabad.
- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Wardlaw GM, Hampi JS, DiSilvestro RA (2004). Perspectives in Nutrition, 6th edition. McGraw Hill.
- ICMR (2011) Dietary Guidelines for Indians. Published by National Institute of Nutrition, Hyderabad.
- ICMR (2010) Recommended Dietary Allowances for Indians. Published by National Institute of Nutrition, Hyderabad.
- Chadha R and Mathur P Eds. Nutrition: A Lifecycle Approach. Orient Blackswan, New Delhi. 2015.
- Dr. Anita Singh, Advance Poshan ewam manav Vikas.
- Srivastava/ Agnihotri, Unnat Poshan ewam manav vikas
- Dr. Lalita Sharma, Matra ewam Shishu poshan
- Dr Deepa Verma and Dr Rajeshwari Pandey (2021) Uech poshan ewam manav vikas (Advance Nutrition and human development), Sahitya Prakashan

| Program/Class: Bachelor in Home science | | Year: II | Semester: III (Paper 2) |
|---|---|---|--------------------------|
| Subject: Home Science | | | |
| Course Code: HSCA - 212 | | Course Title: Computer Application and Research Methodology | |
| Course Objectives: <ul style="list-style-type: none"> To understand the role of statistics and computer applications in research. To apply statistical techniques to research data for analyzing and interpreting data meaningfully. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> Apply statistical techniques in research. Know the importance of computer applications in research. Analyzing and interpreting data in research. | | | |
| Credits: 6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | Fundamental of computer: History, Generation of computer, language, Components application of computers, Operating system and internet. | | 15 |
| II | Experimental designs: Completely randomized design, Randomized block design, Latin square design, Factorial design; Trend Analysis. | | 15 |
| III | <ul style="list-style-type: none"> Social research- concept, meaning, scope and importance types and classification Sampling- Concept, Techniques, Principles and Limitations of sampling Data collection tool and techniques- survey, interview, questionnaire etc. Report writing | | 15 |

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| IV | <ul style="list-style-type: none"> • Statistics – concept, meaning, scope and importance • Some common statistical tests – Measures of central tendency, Measures of variability dispersion etc. | 15 |
|----|--|----|

RECOMMENDED READINGS:

- Garrett, Henry E (1971). Statistics in Psychology and Education. David Heleyand Co.
- Mukherjee, R.(1989) : The Quality of life: Valuation in Social Research, Sage publications, New Delhi.
- Edwards. Experimental design as Psychological Research.
- Kerlinger: Foundation of Education Research.
- SPSS/PC for the IBM PC/XT, SPSS Inc.
- Suggestive digital platforms web links- Swayam Portal; <http://hecontent.upsdc.gov.in/Home.aspx>
<https://ecourseonline.iasri.res.in/course/view.php>

| Program/Class: Bachelor in Home science | | Year: II | Semester: III (Paper 3) |
|---|---|---|--------------------------|
| Subject: Home Science | | | |
| Course Code: HSCT - 213 | | Course Title: Basics of Clothing Construction | |
| Course Objectives: <ul style="list-style-type: none"> • Understanding fundamentals of Clothing Construction • Learning terms and terminologies used in clothing construction • Development of ability for selection of fabrics • Acquiring practical knowledge about construction of some basic garments | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • : Development of ability for selection of fabrics • Acquiring practical knowledge about construction of some basic garments | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Basic terminologies used in clothing construction • Equipment's and supplies used in clothing construction, their maintenance, and problems faced remedies with specific reference to sewing machine. • Drafting and general principles of clothing construction, • Selection of Fabrics, understanding width and right side of fabric, Arranging Stitching area, Layout of paper pattern, marking, cutting and stay stitching | | 15 |
| II | <ul style="list-style-type: none"> • Body measurement for different types of garments • Preparation of fabrics for garment making, laying out of pattern, marking and cutting of different types of fabrics (like checks, floral prints, pile etc.) • Interfacing, lining and interlining | | 15 |
| III | <ul style="list-style-type: none"> • Different types of stitches, necklines, fasteners etc. used in clothing construction • Fullness, gathers, pleats, tucks etc. | | 15 |

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| | <ul style="list-style-type: none"> • Finishing of raw edges and disposal of fullness in clothing construction | |
| IV | <ul style="list-style-type: none"> • Especial considerations for sewing for babies and children • Household Linen: Importance, factors affecting selection of various household linen, care and maintenance. | 15 |
| Practical | <ul style="list-style-type: none"> • Sewing machine and its parts, common defects and remedy for them, equipment used for clothing construction. • Sewing techniques: basic stitches, seams, fullness, gathers, pockets, tucks • Fasteners in common use, their application to the garments • Drafting, cutting and stitching of some common garments such as: Bib, apron, frock, blouse, petticoat, suits etc. | |

RECOMMENDED READINGS:

- Holman, Gillian. (1997), Pattern Cutting Made Easy, BSP.
- Janace E. Bubonia. (2012), Apparel production terms and processes, Fairchild Books, New York.
- Anna Jacob: Art of Sewing UBSPD, New Delhi
- Bane A –Tailoring, Mc Graw Hill Publication
- Reader's Digest: Complete Guide to Sewing, Association inc New York
- Doongaji&Deshpandey : Basic Process and Clothing Construction, New Delhi, NewRaj Book Depo
- Dr Deepa Verma and Monika Tiwari (2021) Vastra vigyan, paridhan ewam pariwarik sansadhan vayastha (Clothing, textiles and family resource management), Sahitya Prakashan

| Program/Class: Bachelor in Home science | | Year: II | Semester: IV (Paper 1) |
|--|--|--|-------------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 221 | | Course Title: Food Preservation & Microbiology | |
| Course Objectives: <ul style="list-style-type: none"> To provide knowledge of microorganisms associated with foods and their origin and role; Knowledge of the factors that determine the presence, growth and survival of microorganisms in food. Knowledge of the main microbial groups involved in different food types and their prevention. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> Learn about different types of microbes, useful vs. harmful Learn different techniques of preservation. | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> Importance and scope of food preservation and storage. Principles and methods of food preservation - drying and dehydration, use of high temperature, use of low temperature, foods as preservatives, use of chemicals, radiation, combination of above methods. Storage of common perishable, semi perishable and non perishable foods. Packaging and packing material, labelling of the product. | | 15 |
| II | <ul style="list-style-type: none"> Introduction to microbiology and its relevance to everyday life, General morphology of micro-organisms- general characteristics of bacteria, fungi, virus, protozoa and algae Growth of micro-organism- growth curve. Thermal Death Time Control of micro-organisms- Physical and chemical methods | | 15 |

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| III | <ul style="list-style-type: none"> Microbial contamination and spoilage of different kinds of foods and their prevention: Cereal and cereal products, vegetables and fruits, Meat and fish, eggs and poultry, milk and milk products, canned foods | 15 |
| IV | <ul style="list-style-type: none"> Food fermentation: definition and types (batch, fed batch and continuous) | 15 |
| Practical | <ul style="list-style-type: none"> Market survey of raw and preserved foods. Drying of fruits and vegetables (blanched & un-blanched) – Solar drying, Sun drying, oven drying. Domestic preservation of foods by freezing. Preparation of preserved products. Squash, crush, jams, jellies, marmalade, preserves, murabbas, pickles with and without oil, chutneys, ketchup, sauces, candies. Demonstration on storage of food grains and canning and bottling of fruits and vegetables. Visits to food processing and preservation units, canning and bottling units, grain storage institute, dairy plant and FCI godown. | |

RECOMMENDED READINGS:

- Deepa verma; (2016) Fal evam sabji parirakshan: Ayushman publication, New delhi
- Sehgal, S., Grewal, R.B., Kawatra, A. and Kaur, Y. (1997). Practical Aspects of Food Preservation. Directorate of Publications. Haryana Agricultural University, Hisar.
- Vijay K., (1999), Text book of Food, Storage and Preservation, Kalyani Publishers, New Dehi.
- Kalia, M. and Sood, S. (2010). Food Preservation and Processing. Revised Edition, Kalyani Publishers, New Delhi.
- Jood, S. and Khetarpaul, N. (2002). Food Preservation. Geeta Somani Agrotech Publishing Academy, Udaipur.
- Food Microbiology by Stanier
- Microbiology by Frazier
- Textbook of microbiology by Pclezar



| Program/Class: Bachelor in Home science | | Year: 2 | Semester: IV(Paper 2) |
|---|--|--------------------------------|------------------------|
| Subject: Home Science | | | |
| Course Code: HSEE - 222 | | Course Title: Entrepreneurship | |
| Course Objectives: <ul style="list-style-type: none"> • Development of concept of Enterprise and Entrepreneurship • Development of Understanding of scope of Entrepreneurship • Development of Understanding of process of Entrepreneurship • Development of Understanding of support institutions to promote Entrepreneurship | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • Develop Understanding of process of Entrepreneurship • Develop Understanding of support institutions to promote Entrepreneurship | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Definition and concept of Entrepreneurship, difference between Wage Employment, self-employment and Entrepreneurship • Role of entrepreneurs in economic development of India. • Role of women entrepreneurs: opportunities and problems | | 15 |
| II | <ul style="list-style-type: none"> • Qualities of personality of an entrepreneur • Process of Enterprise development and management • Process of initiating enterprise. • Identification of opportunity • Preplanning of formalities • Preparation of preliminary project report | | 20 |
| III | <ul style="list-style-type: none"> • Types of entrepreneurs, functions and characteristics of entrepreneurs, importance of entrepreneurial development, and process of entrepreneurship development. | | 15 |
| IV | <ul style="list-style-type: none"> • Government policies and schemes for entrepreneurship development among farm women. | | 10 |



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| <p>Practical</p> | <ul style="list-style-type: none"> • Project Planning, formulation and report preparation (individual/group exercise) • Interaction with entrepreneurs (industry visits) • Visit to small scale industries. • Interaction with successful entrepreneurs. • Visit to financial institutions and support agencies. <p>Preparation of project proposal for funding by different agencies</p> | |
|-------------------------|--|--|

RECOMMENDED READINGS:

- Kaulgud A Entrepreneurship management
- Ormerod A Textile Project Management, the Textile Institute, 1992.
- SangramKeshariMohanti Fundamentals & Entrepreneurship: 2009: PHI learning.
- Vasanth Desai the dynamics of entrepreneurial development & Management: 6th edition Himalaya publish house. 2009.
- Franklin, T. Principles of Management, AITBS. 2002

| Program/Class: Bachelor in Home science | | Year: II | Semester: IV(Paper 3) |
|---|---|---|------------------------|
| Subject: Home Science | | | |
| Course Code: HSCT - 223 | | Course Title: Fabric Construction and Finishing | |
| Course Objectives: <ul style="list-style-type: none"> • Understanding techniques and processes involved in fabric construction • Understanding the principles and processes of finishing fabrics • Understanding applications and use of various types of fabric finishes for specific purposes | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • Identify Finishes of Fabric. • Construct Fabric. | | | |
| Credits:6(4+2) | | Core Compulsory | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Fabric construction • Structure and working of handloom • Types of weaves and Weaving process | | 10 |
| II | <ul style="list-style-type: none"> • Other processes of fabric preparation- Felting, Braiding, Netting, Knitting, Bonding, Lace etc. | | 10 |
| III | <ul style="list-style-type: none"> • Definition, Classification and purpose of finishes Finishing of Textiles <ul style="list-style-type: none"> • Bleaching • Mercerization • Weighing and sizing • Singeing • Beetling • Calendaring • Tentering | | 15 |

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| IV | 1. Finishing of Textiles <ul style="list-style-type: none"> • Embossing • Napping • Water resistant and water proof • Crease resistant • Sanforization • Moth resistant and bacteriostate • Antistatic • Stain and soil resistant | 15 |
| V | Different types of printing- block printing, stencil printing, tie and dye, batik with different dyes, screen printing etc. | 10 |
| Practical | <ul style="list-style-type: none"> • Weaving: Graphical representation of straight draft plan, lift plan and tie-up of plain weave and its variations • Preparation of handloom for plain weave and weaving of sample identification of fancy weaves. • Identification of fancy weaves • Design development: All over design, border design, spot design and pallav design. • Printing: Block printing, stencil printing, tie and dye and batik with different dyes. • Screen printing and Stain removal • Bleaching, whitening, Mercerization and Starching | |

RECOMMENDED READING:

- Corbman, P.B. (1983). Textiles: Fibre to Fabric. McGraw-Hill Publishers.
- Dantiyagi, S. (1996). Fundamentals of Textiles and their Care. India: Orient Black swan Private Limited.
- D'Souza, N. (2014). Fabric Care. New Delhi: New Age International Publishers.
- Gohl, E., Vile sky, L. (2003). Textile Science: an explanation of fiber properties (2 edition), New Delhi.
- Hollen, R. N., Saddler, J., & Langford, A. (1979). Textiles. Macmillan Publishers.
- Joseph, M. (1992). Introductory Textile Science. Sixth edition, California: Harcourt College Publishers
- Rastogi, D., & Chopra, S. (2017). Textile Science. India: Orient Blackswan Private Limited.
- Dr Deepa Verma and Monika Tiwari (2021) Vastra vigyan, paridhan ewam pariwariksansadhan vayastha (Clothing, textiles and family resource management), Sahitya prakashan

| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Paper I) |
|--|---|-------------------------------------|-----------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 311 | | Course Title: Therapeutic Nutrition | |
| Course Objectives: | | | |
| <ul style="list-style-type: none"> • Knowledge of principles of diet therapy • Understanding the various therapeutic modification of normal diet • Ability to counsel the persons and individuals about dietary intakes and modifications | | | |
| Course outcomes: After completion of this course, a student will be able to | | | |
| <ul style="list-style-type: none"> • Know about therapeutic diets. • To treat a patient by therapeutic modification of diet. | | | |
| Credits:6(4+2) | | Core Compulsory –Group I | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | No. of Lectures | |
| I | Introduction to Diet Therapy Basic concepts of diet therapy, role of dietitian <ul style="list-style-type: none"> • Determination of nutritional requirements: recommended dietary allowance, caloric consumption unit, • Therapeutic modifications of the normal diet, types of diets • Methods of feeding (Normal and artificial) | 15 | |
| II | Common diseases/ disorders <ul style="list-style-type: none"> • Aetiology, symptoms and dietary management in acute and chronic fevers. Typhoid, influenza, tuberculosis • Etiology, clinical features and dietary management of: GIT disorder- Peptic ulcers, Diarrhea, constipation, pancreatitis Underweight, overweight and obesity | 15 | |
| III | Lifestyle disorders <ul style="list-style-type: none"> • Etiology, clinical features and dietary management of: Diabetes, Cardiovascular disease Hypertension, Hypothyroidism | 15 | |



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| IV | <p>Chronic diseases</p> <ul style="list-style-type: none"> • Etiology, symptoms and dietary management in liver diseases. Hepatitis, jaundice, cirrhosis of liver, cholelithiasis. • Functions of the kidney, nephritis, urinary calculi, types of renal failure, dialysis • Etiology, symptoms and dietary management in Arthritis, osteoporosis, and Gout. | 15 |
| Practical | <p>Visit to hospitals with therapeutic kitchen setup</p> <ol style="list-style-type: none"> 1. Planning of different types of diets: Bland, liquid, semi-liquid, Soft and normal 2. Planning and preparation of diets in- <ol style="list-style-type: none"> a. Overweight and underweight b. Fevers c. Constipation and Diarrhea, ulcers d. Jaundice and other liver diseases e. Diabetes mellitus, Hypertension and coronary heart diseases. f. Renal diseases g. Gout h. Arthritis i. Planning and preparation of diets for pregnant and lactating women. j. Planning and preparation of diets for special occasion. Birthdays, festivals, packed lunches. | |

RECOMMENDED READING:

- Khanna K, Gupta S, Seth R, Passi SJ, Mahna R, Puri S (2013). Textbook of Nutrition and Dietetics. Phoenix Publishing House Pvt. Ltd.
- Stacy Nix (2009). William's Basic Nutrition and Diet Therapy, 13th Edition. Elsevier Mosby.
- ICMR (1989) Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
- Seth V and Singh K (2007). Diet Planning through the Life Cycle Part II: Diet Therapy. A Practical Manual, 4th edition. Elite Publishing House Pvt. Ltd.

| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Paper 2) |
|--|---|----------------------------|-----------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 312 | | Course Title: Food Science | |
| Course Objectives: <ul style="list-style-type: none"> Gain knowledge of nutritional composition of various food commodities, its wise selection and storage guidelines. Get acquainted with the different therapeutic diets. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> Understand the basic concept of food science and its multidisciplinary nature. Acquire brief and coherent knowledge of food chemistry and its application in cookery Know about therapeutic diets, | | | |
| Credits:6(4+0) | | Core Compulsory –Group 1 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-0 | | | |
| Unit | Topics | No. of Lectures | |
| I | <ul style="list-style-type: none"> Introduction to food science and its multidisciplinary approach Cereals; Functional properties: gelatinization, dextrinization & factors affecting the same, Effect of processing on nutritive value of cereals | 15 | |
| II | <ul style="list-style-type: none"> Fats and oils- Shortenings, Emulsifying agents, Fat substitutes, Role in cookery, Deterioration of fats/oils Pulses: Effect of processing on nutritive value, Anti nutritional factors of pulses. Milk: Composition of milk, Effect of heat, acid etc on milk | 15 | |
| III | <ul style="list-style-type: none"> Meat, Fish and poultry: Nutritional contribution in diet, brief description of ageing, tenderization and curing Egg: Structure, composition and nutritive value, storage, evaluation of quality of egg, role of egg in cookery. | 15 | |



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| IV | <ul style="list-style-type: none"> • Fruits and vegetables: Nutritional contribution, effect of processing on nutritive value and different pigments of Fruits and vegetables. • Food additives. Preservatives, coloring agents, antioxidants, emulsifying agents, leavening agents and stabilizing agents | 15 |
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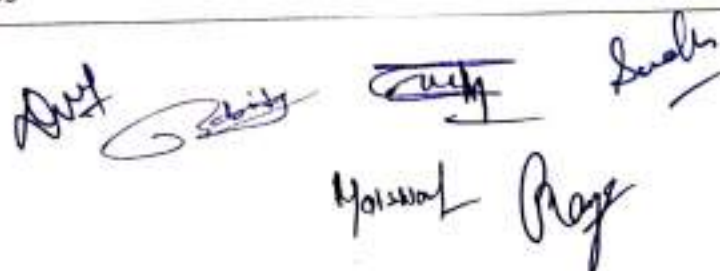
RECOMMENDED READINGS

- Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). The Art and Science of Cooking: A Practical Manual, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). Basic Food Preparation: A Complete Manual, Fourth Edition, Orient Black Swan Ltd.
- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). Textbook of Human Nutrition, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2007). Food Science, 4th Edition, New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). Perspectives in Nutrition, Sixth Edition. Mosby. Chadha R and Mathur P (eds). Nutrition: A Lifecycle Approach. Orient Blackswan, Delhi. 2015 P13



 A collection of handwritten signatures in black ink, including names like 'Sudh', 'Sudh', 'Pragya', and others, arranged in a cluster.

| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Paper 1) |
|--|---|--|-----------------------|
| Subject: Home Science | | | |
| Course Code: HSCD - 313 | | Course Title: - Early Childhood Care and Education | |
| Course Objectives: <ul style="list-style-type: none"> • Explain the need and importance of studying childhood as a distinctive stage of the life-span. • Explain the importance of early childhood years and significance of intervention programs for early childhood development. | | | |
| Course Outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • Describe the historical views and theories on childhood • Describe the characteristics, needs and developmental tasks of infancy, early childhood | | | |
| Credits:6(4+2) | | Core Compulsory –Group 2 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Significance and objectives of Early Childhood Care and Education. • Historical Overview of ECCE: • Objectives of ECCE: ECE Programme- Balwadi, Anganwadi, Nursery Schools, Kindergarten, Montessori, Laboratory Nursery School. ECCE Programme- I.C.D.S. and Mobile Creche, Play Group, Crèche and Day Care | | 15 |
| II | <ul style="list-style-type: none"> • View of Educationist and Philosophers - Comenius, Rousseau, Pestalozzi, Frobel, McMillan Sisters. Dewey and Montessori. • Psychological- Recognition of Effect of experiences in early childhood years, opportunities for expression of anger, tension through creative activities and dramatic play for proper mental hygiene. • Cognitive approach – Piaget’s contribution to curriculum for cognitive development. | | 20 |
| III | <ul style="list-style-type: none"> • ECCE in India – Contribution of Rabindra Nath Tagore, Gandhiji, Tarabai Modak • Recent Development: Policies, Institutions and contributions of NGOs | | 10 |



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| IV | <ul style="list-style-type: none"> • Programme planning in ECE- Steps and types of programme planning. • Preparing equipments lists for indoor and outdoor activities • Parental involvement in early childhood education and care programmes. | 15 |
| Practical | <ul style="list-style-type: none"> • Developing and conducting activities to promote all the developments i.e. physical, motor, cognitive, language, socio-emotional and personality. • Prepare picture book/story/Resource book for infants and toddlers. • Planning pre-reading and writing skills. Collection of traditional stories and songs. • Plan activities/materials to promote mathematical concepts and science experience. • Visit, observe and submit report to early childhood education center and recording observation. crèches, balwadis/aganwadi and preparatory schools. | |

RECOMMENDED READINGS

- Agarwal, J. C. (2007). Early childhood care and education: principles and practices. New Delhi: Shipra
- Agarwal, S.P. and Usmani, M. (2000). Children's education in India: from vedic a. times totwenty first century New Delhi: Shipra.
- Canning, N. (2010) Play and practice in the early years: Foundation stage. New Delhi: Sage.
- FLeer, M. (2010). Early learning and development: Cultural-historical concepts in play. Cambridge: Cambridge University Press.

| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Paper 2) |
|--|---|---|-----------------------|
| Subject: Home Science | | | |
| Course Code: HSEE - 314 | | Course Title: Extension Training Management | |
| Course Objectives: <ul style="list-style-type: none"> • Understanding the basic concept of training and its importance • Knowledge on various training methods • Understanding concept of adult learning | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • Understand need of adult education. • Expertise in training methods of extension education. | | | |
| Credits:6(4+0) | | Core Compulsory –Group 2 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-0 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Training: Concept, need, definition, importance. Identification of training need. Types of Training. • Training process, different phases of training and its management. • Qualities of good trainer- communications skills, training skills, motivational skills and handling difficult situations. | | 15 |
| II | <ul style="list-style-type: none"> • Adult learning, characteristics of adult learner. Facilitation skills in training, problem and prospects of training | | 15 |
| III | <ul style="list-style-type: none"> • Designing training module: Basic guidelines, steps in module designing. • Training methods- seminar, conference, symposium, workshop etc. | | 15 |
| IV | <ul style="list-style-type: none"> • Training evaluation: Objectives, principle, steps and indicators of training evaluation. Important training institutions in India | | 15 |

RECOMMENDED READINGS

- Gupta, C.B. (2001). Human Resource Management. Sultan Chand and Sons.
- Dahama, O.P. and Bhatnagar, O.P. (2003). Education and Communication for Development. Oxford and IBH Publishing Co. Pvt. Ltd.
- Lynton, R.P. and Pareek, V. (2008). Training for Development. Vistaar Publications.
- Narwani, G.S. (2002). Training for Rural Development. Rawat Publication.
- Saxena, J.P. and Kakkar, A.T. (2000). Training and Development.

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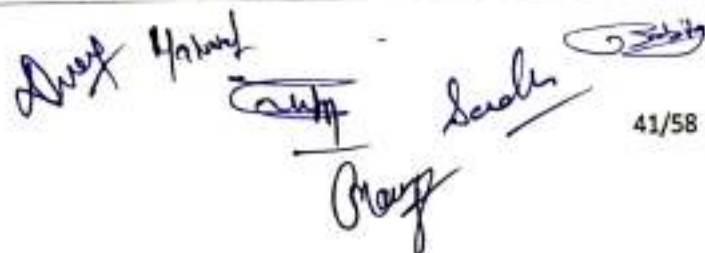
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| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Paper I) |
|---|---|----------------------------------|-----------------------|
| Subject: Home Science | | | |
| Course Code: HSFRM - 315 | | Course Title: Consumer Economics | |
| Course Objectives: <ul style="list-style-type: none"> To learn about the family income. To have a fair knowledge about the saving methods. To know about the consumer rights and laws. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> Understand consumer rights. Prepare a family budget according to their need and income. | | | |
| Credits:6(4+0) | | Core Compulsory –Group 3 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-0 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> Meaning and scope of family finance management. Family - definitions, characteristics, its types and factors affecting family income and expenditure. | | 15 |
| | <ul style="list-style-type: none"> Income concepts: productive income, hidden income, money income, real income, psychic income | | |
| II | <ul style="list-style-type: none"> Budgeting - steps and types of family budget, Engel's law of consumption. Account keeping and record keeping. Planning for family's financial security - savings, investments, insurance, taxation and will. | | 15 |
| | <ul style="list-style-type: none"> Consumer – definition and role. Consumer problems in rural and urban areas. Consumerism - its growth, consumers right and responsibilities. | | |
| III | <ul style="list-style-type: none"> Consumer – definition and role. Consumer problems in rural and urban areas. Consumerism - its growth, consumers right and responsibilities. | | 15 |
| IV | <ul style="list-style-type: none"> Unfair trade practices - adulteration, faulty weights and measures etc., Sources of consumer information - advertisements, labels, packages etc. Consumer protection and welfare. Consumer protection laws. | | 15 |
| | <ul style="list-style-type: none"> Consumer protection and welfare. Consumer protection laws. | | |



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RECOMMENDED READINGS:

- Bhargava, Bela. (2005). Family Resource Management and Interior Decoration. Univ. book home Pvt. Ltd. Jaipur.
- Khetarpaul, N and Grover, I. (2004). Consumer Guide for Home Maker – Udaipur: Agratech Pub Academy.
- Maneesha Shukul and Veena Gandotra. (2006). Home Management and Family Finance. Dominant Publishers and Distributors, New Delhi.
- Mann, M.K. (2004) Home Management for Indian Families. Kalyani Publishers, New Delhi.
- Rice, Nickel and Tucker. (1976). Management in Family Finance. John Wiley and Sons., New York
- Seetharaman P. Sethi M. (2002). Consumerism Strategies and Tactics. CBS Publishers and Distributors, New Delhi.
- Tiwari, O.P. (2000). Consumer Protection Act Allahabad: Allahabad Law Agency.
- Verghese, M.N. Ugale, W. N. and Srinivasan, K. (1997). Home Management, New Delhi: New Age International.

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| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Paper 2) |
|---|--|--|-----------------------|
| Subject: Home Science | | | |
| Course Code: HSCT - 316 | | Course Title: Advance Garment Construction | |
| Course Objectives: <ul style="list-style-type: none"> • Understanding the scientific approach to Anthropometric measurements • Gaining knowledge about use and handling of various types of fabrics • Getting acquainted about pattern and pattern making | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • Learn the use of components of garment construction. • Learn and practice about fitting and common fitting problems. | | | |
| Credits:6(4+2) | | Core Compulsory –Group 3 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Total No. of Lectures-Tutorials-Practical (in hours per week): L-T-P: 3-1-2 | | | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Methods of taking body measurement for different garments. • Fabrics for Garment making: • Handling of different types of fabrics. • Estimation of material required for different garments. | | 15 |
| II | <ul style="list-style-type: none"> • Working on the Bias • Study of garment components and trims • Basics of binding, Frills, Braids, Tassel, Pompons and fringe preparation • Pattern Making: Techniques of pattern making. Principles and application of flat patterns for different styles. | | 15 |
| III | <ul style="list-style-type: none"> • Draping.: concept, requirements, technique, advantages and disadvantages • Fitting • Principle of fitting. • Common fitting problems and remedial methods. | | 15 |

Dr. Jyoti
Dr. Sushma
Dr. Pray
Dr. Subhita
Dr. Mahesh

| | | |
|-----------|---|----|
| IV | <ul style="list-style-type: none"> Commercial Patterns: concept, Common fitting problems and remedial methods Embroidery stitches: basics of embroidery and types | 15 |
| Practical | <ul style="list-style-type: none"> Embroidery stitches- making a display file of various embroideries Make samples of different types of stitches Preparation of two consumer's items using contemporary embroidery. Pattern making: variation in collars, sleeves, yokes Garments: Gathered frock with Peter pan collar, Salwar kameez, Saree blouse, Nightie Drafting and construction of following garments for women, men and children fancy frock salwar/ pyjama/pyjama kurta (gents)/kameez (ladies) night dress/ gown Preparation of Yoke, gather, pleats, tucks, shirring, smocking, trimmings | |

RECOMMENDED READINGS :

- Anna Jacob: Art of Sewing UBSPD, New Delhi
- Bane A –Tailoring, Mc Graw Hill Publication
- Reader's Digest: Complete Guide to Sewing, Association inc New York
- Majumdar&Vatsala : Textbook of Clothing Construction, ICMR
- Carr& Latham: The Technology of Clothing Manufacture, Blackwell Science
- Doongaji&Deshpandey: Basic Process and Clothing Construction. New Raj Book Depot, New Delhi
- Jindal R: handbook of Fashion Designing
- Frings GS fashion from concept to consumerPrentice Hall Inc New Jersey, United States of America

*Deep
Sinha*

*Harsh
Pray*

| Program/Class: Bachelor in Home science | | Year: III | Semester: V(Research work) |
|---|--|------------------------------------|-----------------------------|
| Subject: Home Science | | | |
| Course Code: HSRP - 317 | | Course Title: Research project - I | |
| Course Objectives: <ul style="list-style-type: none"> Learns to communicate with community around. Becomes sensitized to problems being faced in community Increases awareness of candidate. | | | |
| Course outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> Learns to prepare a survey/interview schedule. | | | |
| Credits:6(0+4) | | Core Compulsory –Group 3 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | | No. of Lectures |
| I | Survey of community services surrounding living area of candidate The Candidate has to explore the surroundings and study / identify problem in any one of the following. 12 It many include Anganwadi/ Health services/ Market / Dairy/ Agricultural farmland / NGO / Crèche/ Nursery School/ Hospital/ Fitness center/ Diet councillor/ Boutique/Balwadi/ Youth center/ Primary school/ Vridha Ashram(old age home)/ Divang school/ Mentally challenged institution/ Village panchayat / School councillor/ Dyeing or printing Unit/ Cottage level embroidery or food processing unit / SHGs/ Bank schemes/ Subsidies available/ Industry producing consumer goods | | 15 |
| II | Seek permission to carry the visits, Plan Visits to the area/ site for developing an understanding | | 15 |
| III | Develop a tool for conducting a survey of the selected area and collect data from the area/ seek permission to conduct short training in the area. | | 15 |
| IV | A detailed Report to be prepared and submitted. | | 15 |



| Program/Class: Bachelor in Home science | | Year: III | Semester: VI (Paper 1) |
|--|--|-----------------------------------|-------------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 321 | | Course Title: Community Nutrition | |
| Course Objectives: <ul style="list-style-type: none"> • Develop basic understanding of concept of community nutrition. • Understand the Multifaceted nature, causative factors and preventive strategies of common nutritional problems of India. | | | |
| Course outcomes: After completion of this course, a student will be able to <ul style="list-style-type: none"> • Learn Direct and Indirect Nutritional assessment methods for individual, family and community. • Get insight of various aspects of nutrition education. | | | |
| Credits:6(4+0) | | Core Compulsory –Group 1 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Community nutrition: Definition and importance, • Common nutritional deficiencies; Etiology, prevalence, clinical features, prevention and management of Protein Energy Malnutrition (PEM): Marasmus, Kwashiorkor, vicious cycle of malnutrition. Micronutrient deficiencies such as Vitamin A deficiency, iron deficiency Anemia, Iodine Deficiency Disorders, fluorosis | | 15 |
| II | <ul style="list-style-type: none"> • Assessment of nutritional status: Direct methods – anthropometry, biochemical and clinical examination, dietary surveys and Indirect methods – vital statistics | | 15 |
| III | <ul style="list-style-type: none"> • Nutrition education: Meaning, objective, importance, principles and methods of nutrition education. | | 15 |
| IV | <ul style="list-style-type: none"> • Organizing nutrition education programme. • National programmes and role of national and international agencies. In improving nutritional status of the community - ICDS, MDM, SNP, ANP, FAO, WHO, UNICEF, CARE, UNDP etc. | | 15 |

RECOMMENDED READINGS:

1. Wadhwa A and Sharma S (2003). Nutrition in the Community- A Textbook. ElitePublishing Pvt Ltd, New Delhi.
2. ICMR (1989) Nutritive value of Indian Foods. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
3. ICMR (2011) Dietary Guidelines for Indians – A Manual. National Institute of Nutrition, Indian Council of Medical Research, Hyderabad.
4. Understanding Nutrition: Whitney E.N. & Rolfe S.R. 8th Edition West/ Wordsworth. 1999
5. Nutritional Research: Current Scenario and Future Trends Editor: K, Krishnaswamy, Oxford and IBH Publication Co. Pvt. Ltd., 2000 6)
6. Nutritional Problems of India: Shukla P.K., Prentice Hall of India Pvt. Ltd., Delhi 1982



| Program/Class: Bachelor in Home science | | Year: III | Semester: VI (Paper 2) |
|---|--|--|--------------------------------|
| Subject: Home Science | | | |
| Course Code: HSFN - 322 | | Course Title: Food Service Management | |
| Course Objectives: | | | |
| <ul style="list-style-type: none"> • Knowledge of type of food services in INDIA • Analysis of various resources required for food service establishments | | | |
| Course outcomes: After completion of this course, a student will be able to: | | | |
| <ul style="list-style-type: none"> • Understanding characteristics of various food service outlets | | | |
| Credits:6(4+2) | | Core Compulsory –Group I | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | No. of Lectures | |
| I | Introduction to Food Service <ul style="list-style-type: none"> • Types of food service institutions, • Factors contributing to the growth of food service industry | 15 | |
| II | <ul style="list-style-type: none"> • Menu planning: Importance and types of menu, Factors affecting menu planning, Menu planning for different kinds of food service units • Food Purchase and Storage • Quantity Food production: Standardization of recipes, quantity food preparation techniques, recipe adjustments and portion control | 15 | |
| III | <ul style="list-style-type: none"> • Financial management- Cost concepts, food cost control, pricing, book-keeping, accounting • Personnel management- Policies, recruitment, selection, facilities, benefits, trainings and development | 15 | |
| IV | <ul style="list-style-type: none"> • Sanitation, hygiene and safety in food service establishment. Laws governing food service establishments, legal issues. Current issues | 15 | |

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| <p>Practical</p> | <ul style="list-style-type: none"> • Preparation and service of Hi teas/ lunches for special occasions and a formal lunch. • Visit to a Food Service Establishments to study its planning and functioning • Visit to canteen attached to hospital and dietary department cafeteria, 3-star hotel/restaurant. 5-star hotel / restaurant, industrial canteen • Standardization of recipes suitable for fast food outlet, industrial canteen, hospitals, college hostel. • Analyze the relationship between the purchased amount, edible portion and cooked weight of food stuffs. • Cost analysis of menu. • Practical exercise on planning, preparation and service in a cafeteria, snack, bar fast food outlet. Management of cafeteria – preparation, costing and fixing of price for meal items. | |
|------------------|---|--|

RECOMMENDED READINGS:

- West B Bessie & Wood Levelle (1988) Food Service in Institutions 6th Edition Revised By Hargar FV, Shuggart SG, & Paigne Palacio June, Macmillian Publishing Company New York.
- Sethi Mohini (2005) Institution Food Management New Age International Publishers
- Knight J B & Kotschevar LH (2000) Quantity Food Production Planning & Management 3rd edition John Wiley & Sons
- Philip E Thangam (2008) Modern Cookery for teaching and Trade Part I & II Orient Longman
- Taneja S and Gupta SL (2001) Entrepreneurship development, Galgotia Publishing
- Dinesh Kumar, Food service and catering management.

| Program/Class: Bachelor in Home science | | Year: III | Semester: VI (Paper I) |
|--|--|---|-------------------------|
| Subject: Home Science | | | |
| Course Code: HSCEE - 323 | | Course Title: Community Development & Education | |
| Course Objectives: <ul style="list-style-type: none"> • Get acquainted with extension activities for community development • Awareness on developmental programmes and schemes | | | |
| Course Outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> • Learn the history of community development programs in India • Gain knowledge of extension methods and approaches | | | |
| Credits:6(4+2) | | Core Compulsory –Group 2 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • History of Community Development: Definition, objectives, steps and process, limitations and elements of community development, Role of community development worker • Pre and post-independence development programmes- Shriniketan rural reconstruction, Gurgaon experiment, Marthandum project, Gandhian constructive programme, Etawah pilot project, Indian village service. Firka development scheme, Nilokheri experiment etc. | | 15 |
| II | <ul style="list-style-type: none"> • Schemes and programmes for community development-JRY, SGSY, TYSEM, DWCRA, CRY, SITRA, MNREGA, ICDS and other latest programmes | | 15 |
| III | <ul style="list-style-type: none"> • Participatory tools and Approaches • People's participation and social mobilization in development | | 15 |
| IV | <ul style="list-style-type: none"> • Diffusion and adoption of innovation: concept and meaning, process and stages of adoption. • Adoption: meaning, definition, stages of adoption ,adoption process, factor affecting adoption and innovation – decision process and constraints. • Innovation–decision process, types of innovation decision, perceived attributes of Innovation, consequences of innovations. • Adopter categories- concept and types. | | 15 |



| | | |
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| Practical | <ol style="list-style-type: none"> 1. Visit of Local NGO 2. Analysis of different development programmes 3. Exercise on PRA tools and techniques | |
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RECOMMENDED READINGS:

- S. Chandra, Guidelines for NGO Management in India (2003), Published by Kanishka Distributors, New Delhi
- D. Lewis, Management of Non Governmental Development Organization (2001), Second Edition, Published by Routledge, Newyork.
- A. Abraham, Formation and Management of NGOs (2003), Third Edition, Published by Universal Law Publishing Co. Pvt Ltd., New Delhi.
- Sundar, P. 2013, Business and Community: The Story of Corporate Social Responsibility in India, New Delhi, Sage Publication.
- Aggarwal, S.2008, Corporate Social Responsibility in India, Sage Publication Pvt. Ltd
- Ray, G.L. (2003) Extension Communication and Management. Kalyani Publishers. Fifth revised and enlarge edition.
- Dahama, O.P. and Bhatnagar, O.P. (2003). education and communication for development. Oxford and IBH Publishing Co. Pvt. Ltd.
- Sandhu, A.S. (1993) Textbook on Agricultural Communication: Process and Methods". Oxfordand IBH West B Bessie & Wood Levelle (1988).

| Program/Class: Bachelor in Home science | | Year: III | Semester: VI (Paper 2) |
|--|---|---|--------------------------|
| Subject: Home Science | | | |
| Course Code: HSCD - 324 | | Course Title: Theories of Human Development | |
| Course Objectives: <ul style="list-style-type: none"> • Apply the theoretical approaches to work with human being across life span • Learn about the classic human development theories. • Identify the biological and environmental factors affecting human development. | | | |
| Course outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> • Develop professional attitude for working with human beings across life span • Explain the need and importance of studying human growth and development across life span. | | | |
| Credits:6(4+0) | | Core Compulsory –Group 2 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Early views on human development: Western and Indian Perspective of Human Development. Psychosexual • Development Theory and Psychoanalytic Theory of Personality – Sigmund Freud Psychosocial Theory – Erik Erikson | | 15 |
| II | <ul style="list-style-type: none"> • Social Learning Theory – Albert Bandura • Learning Theories – Watson, Pavlov and Skinner | | 15 |
| III | <ul style="list-style-type: none"> • Cognitive Development Theory – Jean Piaget • Socio-Cultural theory of Cognitive Development – Vygotsky | | 15 |
| IV | <ul style="list-style-type: none"> • Kohlberg's Moral Judgement Theory • Ecological Theory – Urie Bronfenbrenner | | 15 |

Teacher
Dr. S. Srinivas
Dr. Praveen
Dr. Anand
Dr. Praveen
Dr. Anand

RECOMMENDED READINGS:

1. Bhangaokar, R., & Kapadia, S. (in press). Human Development Research in India: A historical overview. In G. Misra (Ed.), *Hundred years of Psychology in India*. New Delhi: Springer.
2. Feldman, R., & Babu, N. (2009). *Discovering the life span*. New Delhi: Pearson
3. Kakar, S. (1998). *The inner world. Psychoanalytic study of childhood and society in India*. Delhi: Oxford University Press.
4. Kapadia, S. (2011). Psychology and human development in India. Country paper. *International Society for the Study of Behavioural Development Bulletin Number 2, Serial No. 60, pp.37-42.*
5. Keenan, T., Evans, S., & Crowley, K. (2016). *An introduction to child development*. Sage.
6. Lightfoot, C., Cole, M., & Cole, S. (2012). *The development of children (7th ed.)*. New York: Worth Publishers.
7. Santrock, J. (2017). *A topical approach to life span development (9th ed.)*. New NY.: McGraw-Hill Higher Education.
8. Singh, A. (2015). *Foundations of Human Development: A life span approach*. ND: Orient Black Swan.
9. Walsh, B.A., DeFlorio, L., Burnham, M.M., & Weiser, D.A. (2017). *Introduction to Human Development and Family Studies*. NY: Routledge

A collection of handwritten signatures and initials in black ink, including names like 'Srinivas', 'Sudh', 'Prasanna', 'Hartman', and 'Amy'.

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|--|---|--|--------------------------------|
| Program/Class: Bachelor in Home science | | Year: 3 | Semester: VI(Paper 1) |
| Subject: Home Science | | | |
| Course Code: HSCT - 325 | | Course Title: Traditional Textiles of India | |
| Course Objectives: | | | |
| <ul style="list-style-type: none"> • Appreciation of diverse and rich textiles heritage of India • Comprehending about traditional textiles from different parts of the country • Scientific knowledge about conservation of textiles | | | |
| Course outcomes: After completion of this course, a student will be able to: | | | |
| <ul style="list-style-type: none"> • Learn about traditional embroideries from different parts of the country • Understanding role and significance of khadi | | | |
| Credits:6(4+0) | | Core Compulsory –Group 3 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | | No. of Lectures |
| I | Dyed and printed textiles: Kalamkari (painted and block printed), Patola, bandhani (tie and dye) of Gujarat and Rajasthan. Ikat of Orissa | | 15 |
| II | Woven textiles: Brocades of Uttar Pradesh .Baluchar of West Bengal, Brocades of South India, Muslin of Bengal. Shawls of Kashmir | | 15 |
| III | Embroidered Textiles: Chikankari of Lucknow, Phulkari of Punjab, Kantha of Bengal, Kashidakari of Kashmir. Kasuti of Karnataka, Zari embroidery, Embroidery of Kutch and Kathiawar. | | 15 |
| IV | Status of traditional textiles in modern India: Evolution and socio economic significance of khadi, hand loom and handicrafts sector Intervention by organizations in sustenance of Indian textile craft Conservation of textiles: factors affecting deterioration of textiles, care and storage of textiles | | 15 |

RECOMMENDED READINGS :

- Chattopadhyaya K D: Handicrafts of India Indian Council for Cultural Relations
- Dhamija & Jain: Handwoven Fabrics of India . Ahmedabad Mapin Publishing Pvt Ltd
- Bhatnagar P Traditional Indian Costumes & Textiles India Abhishek publications Chandigarh
- Dar SN Costumes of India and Pakistan. Bombay D B Taraporewala sons & Co Pvt Ltd

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| Program/Class: Bachelor in Home science | | Year: III | Semester: VI (Paper 2) |
|--|--|---|--------------------------|
| Subject: Home Science | | | |
| Course Code: HSFRM - 326 | | Course Title: Interior Designing and Decoration | |
| Course Objectives: | | | |
| <ul style="list-style-type: none"> • Understanding on the concepts designing and decoration • Understanding the various techniques of designing and decoration • Use of resources in designing and decoration | | | |
| Course outcomes: After completion of this course, a student will be able to: | | | |
| <ul style="list-style-type: none"> • Use resources in designing and decoration. • Decorate your surroundings by available resources. | | | |
| Credits: 6(4+2) | | Core Compulsory –Group 3 | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | | No. of Lectures |
| I | <ul style="list-style-type: none"> • Understand and apply the elements and principles of design in interior to enhance aesthetic performance. • Principles of Interior Design • Basics of Decorative styles and accessories | | 15 |
| II | <ul style="list-style-type: none"> • Lighting - Definition, Objectives, Functions and Importance of lighting. • Types of lighting - Natural and Artificial lighting. Methods of lighting - direct, semi-direct, In-direct, semi indirect and diffused lighting. • Lighting accessories – Selection of lamps and lamp shades. • Lighting fixtures – Structural lighting. Free-standing or portable - Table lamp, Floor lamp, standard lamp fixtures and office task light luminaries. | | 15 |
| III | <ul style="list-style-type: none"> • Accessories - Definition and importance in interiors, Classification – functional, decorative and both accessories. Factors influencing the selection of accessories, Placement, location and background for accessories. • Kinds of accessories - Decorative - mural, photographs, pictures, art, drawings, antiques and Functional - books, Mirror, Clock, accent furniture, indoor plants and flower arrangement as miscellaneous accessories. | | 15 |

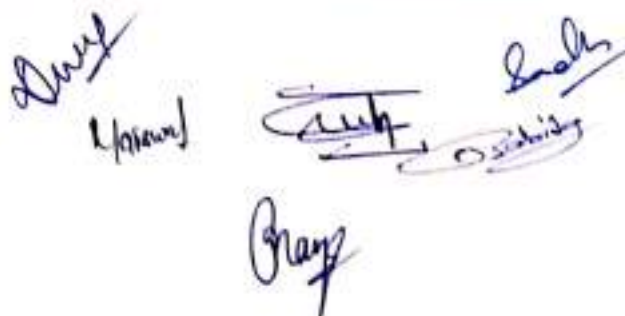


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| IV | <ul style="list-style-type: none"> • Art and Crafts – definition, kinds of art and crafts-pot painting, idols, sculptures, glass painting, wall art, wall hanging, pillows, cushions, pebble art, wood art, shell art, origami, models, lamps and vases, baskets, doll making, bamboo crafts, folk arts and crafts of India, Application of arts and crafts in interiors | 15 |
| Practical | <ul style="list-style-type: none"> • Application of elements and principles of interior design and Decoration • Preparation of utility and decoration articles by using various painting/printing techniques Calligraphy Use of floor decoration in interiors • Stationery designs; cover designs for books, magazines, illustrations, lettering construction etc. • Accessories; various types, materials and techniques; pottery, collage, handicrafts, utility articles, paper items, paper sculpture, poster making, greeting cards, fabric painting, glass painting, gift wrapping etc. | |

RECOMMENDED READINGS:

- Dorothi, S. et al. (1980). Introduction to Interior Design. New York: Mc Millan.
- Faulkner and Faulkner. (1975). Inside Today's Home. New York: Holt, Rinehart and Winston.
- Gewther, M. (1970). The Home, its Furnishings and Equipment U.S.A. Mc. Graw Hill.
- Mike, L. (1986). The Complete Interior Decoration. United Kingdom: Mc Donald.
- Ruth, M. (1975). The Home and its Furnishings. U.S.A.: Mc. Graw Hill.
- Seetharaman P. Sethi M. (2002). Interior Design and Decoration. CBS Publishers and Distributors. New Delhi.
- Chaudhari, S.N. 2006, Interior Design. Aavishkar Publishers, Jaipur.
- Premavathy Seetharaman and Parveen Pannu. (2009). Interior Design and Decoration. CBS Publishers and Distributors Pvt Ltd. New Delhi.
- Goldstein, (1976). Art in Every Day Life. Oxford and IBH Publishing

| Program/Class: Bachelor in Home science | | Year: III | Semester: VI (Research work) |
|--|--|------------------------------------|------------------------------|
| Subject: Home Science | | | |
| Course Code: HSRP - 327 | | Course Title: Research project - 2 | |
| Course Objectives: <ul style="list-style-type: none"> Learns to communicate with community around Becomes sensitized to problems being faced in community Increases awareness of candidate. | | | |
| Course outcomes: After completion of this course, a student will be able to: <ul style="list-style-type: none"> Learns to prepare a survey/interview schedule. | | | |
| Credits:6(0+4) | | Core Compulsory -Group J | |
| Max. Marks: 25+75 | | Min. Passing Marks: 40 | |
| Unit | Topics | No. of Lectures | |
| I | The Candidate has to select and give inputs in any one of the following: It may be included Anganwadi / Health services/ Market / Dairy/ Agricultural farmland / NGO / Crèche / Nursery School/ Hospital/ Fitness center/ Diet counselor/ Boutique/Balwadi/ Youth center/ Primary school/ Vridha Ashram(old age home)/ Divang school/ Mentally challenged institution/ Village panchayat / School counselor/ Dyeing or printing Unit/ Cottage level embroidery or food processing unit / SHGs/ Bank schemes/ Subsidies available/ Industry producing consumer goods | 15 | |
| II | An intervention plan would be developed based on problem identified in the area/ a field visit is mandatory to develop an understanding of the whole process. | 15 | |
| III | The planned intervention to be carried in the selected area Based on the intervention, the pre-intervention state and post intervention data has to be collected and compared / based on visit and interaction the detailed in depth data has to be collected. | 15 | |
| IV | A detailed Report is to be submitted and evaluated. | 15 | |



MINOR COURSES FOR B.Sc. HOME SCIENCE

| S. No. | Minor Courses |
|--------|-----------------------------|
| 1. | Food Microbiology |
| 2. | Food Biochemistry |
| 3. | Food Dairy Microbiology |
| 4. | Photography and Sketching |
| 5. | Pre And Post- Natal Care |
| 6. | Marketing Management |
| 7. | Food Preservation |
| 8. | Fashion Designing |
| 9. | Public Health And Nutrition |
| 10. | Clinical Nutrition |
| 11. | Web Technology |
| 12. | Graphic Designing |
| 13. | Basic English |
| 14. | Elementary Chemistry |
| 15. | Home Economics |

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LIST OF VOCATIONAL COURSE FOR B.Sc. HOME SCIENCE

| S. No. | Vocational Courses |
|--------|------------------------------|
| 1. | Clinical Microbiology |
| 2. | Sales & Marketing Management |
| 3. | Tailoring & Embroidery |
| 4. | Photography & Videography |

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Gray

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| S. No. | Vocational Courses |
|--------|------------------------------|
| 1. | Clinical Microbiology |
| 2. | Sales & Marketing Management |
| 3. | Tailoring & Embroidery |
| 4. | Photography & Videography |

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Sudha
Smita
Hirshul
Anurag
Pray
Anurag

MINOR COURSES FOR B.Sc. HOME SCIENCE

| S. No. | Minor Courses |
|--------|-----------------------------|
| 1. | Food Microbiology |
| 2. | Food Biochemistry |
| 3. | Food Dairy Microbiology |
| 4. | Photography and Sketching |
| 5. | Pre And Post- Natal Care |
| 6. | Marketing Management |
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| 10. | Clinical Nutrition |
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| 12. | Graphic Designing |
| 13. | Basic English |
| 14. | Elementary Chemistry |
| 15. | Home Economics |

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Ladkin Jh
Gobinda
Mansoor
Pragy
Sush
Dwey

कमला नेहरू भौतिक एवं सामाजिक विज्ञान संस्थान, सुलतानपुर

स्वायत्तशासी संस्थान

दिनांक: 10.09.2023

निर्णय संख्या-02-

प्रश्न-पत्र प्रारूप निर्धारण निर्णय निम्नवत् है:-

1. समस्त प्रश्न-पत्र 2 घण्टे का होगा।
2. प्रश्न-पत्र का पूर्णांक 75 अंकों का होगा।
3. प्रश्न-पत्र कुल 3 खण्डों में विभक्त होगा।
 - ❖ प्रथम खण्ड A में कुल 20 अति लघु उत्तरीय प्रश्न होंगे। जिसमें बहुविकल्पीय, सत्य/असत्य (ट्रू/फाल्स) एवं रिक्त स्थानों की पूर्ति (फिल इन द ब्लैंक) आदि प्रारूप शामिल किए जा सकते हैं। प्रत्येक प्रश्न पर 2 अंक निर्धारित हैं। अति लघु उत्तरीय प्रश्न पूरे पाठ्यक्रम को कवर करते हुए बनाया जाएगा। शब्द सीमा 25 शब्द की होगी।
 - ❖ प्रश्न-पत्र के दूसरे खण्ड B में कुल 05 लघु उत्तरीय प्रश्न होंगे। जिनकी शब्द सीमा 200 शब्दों की होगी। प्रत्येक प्रश्न पर 04 अंक निर्धारित होंगे। हर प्रश्न का विकल्प भी आवश्यक है।
 - ❖ प्रश्न-पत्र के खण्ड C में मात्र 01 प्रश्न होगा। अधिकतम शब्द सीमा 500 शब्द की होगी। इसके कम से कम 03 विकल्प आवश्यक होंगे। इस एक प्रश्न पर 15 अंक निर्धारित हैं। इस तरह कुल अंक एक प्रश्न-पत्र का 75 अंक का होगा।
4. समिति ने यह निर्णय लिया कि किसी असंगत स्थिति में समिति को अधिकार होगा कि वह आवश्यक सुझाव व परिवर्तन हेतु स्वतंत्र होगी।

Sudhakar Singh
10.9.23

Rabita
10/9/23

Dwey
10/9/23

Pranshu
10/9/23

Rishi
10.09.2023

Harsimran
10/9/23