

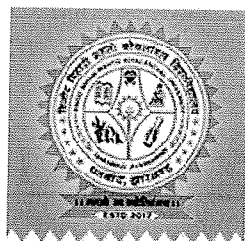
**SYLLABUS FOR FOUR YEAR UNDER GRADUATE
PROGRAMME (FYUGP)**

HOME SCIENCE

(UNDER CHOICE BASED CREDIT SYSTEM)

As per provision of NEP-2022

ACADEMIC SESSION: w.e.f. 2022-26



For

**All Constituent/Affiliated Colleges Under Binod Bihari
Mahto Koylanchal University,
Dhanbad**



Notification

In exercise of the powers vested in him under the Jharkhand State Universities Act 2000 as amended up-to-date, the Vice-Chancellor is pleased to constitute a Board of Studies (BOS) for the Department of Home Science, comprising of following members for a period of one year from the date of notification :

For Under Graduate

- | | |
|---|-------------------|
| 1. Dr. Seema Kumari
Head, University Department of Home Science,
BBMKU. | - Chairperson |
| 2. Dr. Manju Kumari
University Department of Home Science ,
Ranchi University, Ranchi | - External Member |
| 3. Dr. Reshma Xalxo
University Department of Home Science ,
Ranchi University, Ranchi | - External Member |
| 4. Dr. Chanchala Verma
University Department of Home Science, BBMKU. | - Member |
| 5. Mrs. Asha Singh
Dept. of Home Science , Bokaro Mahila College,
Bokaro | - Member |
| 6. Dr. Anju Verma
Dept. of Home Science , BSSM College, Dhanbad | - Member |
| 7. Dr. Shanta Badaik
Dept. of Home Science , SSLNTM College, Dhanbad | - Member |
| 8. Dr. Susmita Kumari
Dept. of Home Science , SSLNTM College, Dhanbad | - Member |

By order of the Vice-Chancellor
Sd/-


Registrar


Date 14/07/2023

Memo No. BBMKU/R/...1231/2023

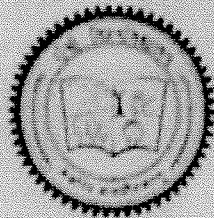
Copy to: -

1. Persons concerned.
2. Dean, Faculty of Science, BBMKU.
3. Establishment Section, BBMKU, Dhanbad.
4. P.A. to VC/PVC/F.A./R for information to VC/PVC/F.A./R.
5. Guard File.


Registrar
BBMKU, Dhanbad.


14.07.23

Dr. (Mrs.) Reshima Xalvo
M.A., Ph.D.
Associate Professor
P.G. Deptt. of Home Science
Ranchi University
Ranchi-834008, Jharkhand



Residence:
"Ashirwad"
C/o Mr. Shital Oraon
209/C, Behind Rahul Automobile
Karamtoli, Hariatu Road, Ranchi-8
(Jharkhand) Ph: 09431103818

Ref. No.

Date 25/07/2023

This is to certify that syllabus for 4 years Under Graduate program (FYUGP) course in Home Science (Honors) at BBMK University Dhanbad MDC Course, Major, Minor course and Advance Major Course under U.G NEP 2022 purposed syllabus are approved.

External Member

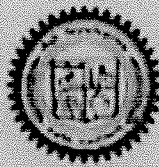
Reshima Xalvo
25/07/2023

Dr. Reshima Xalvo
Associate Professor
University Department of
Home Science
Ranchi University,
Ranchi

Dr. Manju Kumari

Ph.D., D.Litt.

Associate Professor
University Dept. of Home Science
Ranchi University, Ranchi-834008



Residence :

KARNIK COTTAGE
A/5, Gauri Enclave, Maitri Marg,
Bariatu, Ranchi-9 (Jharkhand)
Phone : 0651-2541319
Cell. : 9431585498

Ref. :


Date : 25/07/2023

This is to certify that 4 years Under Graduate program course in Home Science (Honors) at BBMK University Dhanbad MDC Course, Major , Minor course and Advance Major Course under U.G NEP 2022 purposed syllabus are approved.

External Member
Manju Kumari
Dr. Manju Kumari
Associate Professor
University Department of Home Science
Ranchi University, Ranchi.

**Members of Board of Studies of Four Years Under-Graduate Programme (FYUGP) syllabus as per Guidelines of the (NEP-2022)
Binod Bihari Mahto Koyalanchal University, Dhanbad**

1. Chairman : Dr. Seema Kumari
2. External expert member : Dr. Manju Kumari
3. External expert member : Dr. Reshma Xalxo
4. Members : Dr. Chanchala Verma


(Dr. Seema Kumari) 22/07/2023

Head

University Department of Home Science
BBMKU, Dhanbad

Dr. Seema Kumari
Head of the P.G. Deptt. of Home Science
B.B.M.K. University
Dhanbad-826001 (Jharkhand)

Course Structure for Four Year Undergraduate Programme in Home Science

Semester wise Course Code, Marks, Credit Points:

Course Structure for Undergraduate Certificate Programme (Semester I & II)

Semester	Course Code	Name of Paper	Credit	Full Marks	Internal Theory (Mid-Sem)	End Sem Theory (U & E)	End Sem Practical	Pass Marks		
								Internal Theory Mid Sem	End Sem. Theory	End Sem. Pract.
I	AEC-I	Ability Enhancement Course-I	2	50	-	50	-	-	20	-
	VAC-I	Value added course-I	4	100	-	100	-	-	40	-
	SEC-I	Skill Enhancement Course-I	3	75	-	75	-	-	30	-
	MDC-I	Multi-disciplinary Course-I	3	75	-	75	-	-	30	-
	MN-1A	Minor from Discipline-I	3+1	100	15	60	25	-	30	10
	MJ-I Theory	Major paper-I (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
II	AEC-2	Language and Communication Skills (Eng.)	2	50	-	50	-	-	20	-
	SEC-2	Skill Enhancement Course-2	3	75	-	75	-	-	30	-
	MDC-2	Multi-disciplinary Course-2	3	75	-	75	-	-	30	-
	MN-2A	Minor from Vocational Studies/Discipline-2	4	100	-	100	-	-	40	-
	MJ-2 Theory	Major paper-2 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-3/Practical-I	Major Paper Practical-I	4	100	-	-	100	-	-	40
III	AEC-3	Language and Communication Skills (MIL-2; Modern Indian Language including TRL)	2	50	-	50	-	-	20	-
	SEC-3	Skill Enhancement Course-3	3	75	-	75	-	-	30	-

	MDC-3	Multi-disciplinary Course-3	3	75	-	75	-	-	30	-
	MN-1B	Minor from Discipline-I	3+1	100	15	60	25	-	30	10
	MJ-4 Theory	Major paper-4 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-5:Practical-2	Major Paper Practical-2	4	100	-	-	100	-	-	40
IV	AEC-2	Language and Communication Skills (MIL-2/English-2)	4	100		100	-		40	-
	VAC-2	Value Added Course-2	2	50	-	50	-	-	20	-
	MN-2B	Minor from Vocational Studies/Discipline-2	4	100		100	-		40	-
	MJ-6 Theory	Major Paper-6 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-7 Theory	Major Paper-7 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-8:Practical-3	Major Paper Practical-3	4	100	-	-	100	-	-	40
V	MN-IC	Minor from Discipline-1	3+1	75	15	60	25	-	30	10
	MJ-9 Theory	Major Paper-9 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-10 Theory	Major Paper-10 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-11 Practical	Major Paper Practical-11	4	100	-	-	100	-	-	40
	IAP	Internship/Dissertation/Project work	4	100	-	100	-	-	40	-
VI	MN-2C	Minor form Vocational Studies	4	100		100	-		40	-
	MJ-12 Theory	Major Paper-12 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-13 Theory	Major Paper-13 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-

	MJ-14 Theory	Major Paper-14 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-15 Practical-5	Major Paper Practical-15	4	100	-	-	100	-	-	40
VII	MN-1D	Minor from Discipline-I	3+1	75	15	60	25	-	30	10
	MJ-16 Theory	Major Paper-16 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-17 Theory	Major Paper-17 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-18 Theory	Major Paper-18 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	MJ-19 Practical-6	Major Paper Practical-19	4	100	-	-	100	-	-	40
VIII	MN-2D	Minor from Vocational Studies/Discipline-2	4	100	-	100	-	-	40	-
	MJ-20 Theory	Major Paper-20 (Disciplinary/Interdisciplinary Major)	4	100	25	75	-	10	30	-
	RC/	Research Internship/Filed Work/Dissertation OR	12/	300						
	AMJ-I Theory	Advanced Major paper-1	4	100	25	75	-	10	30	-
	AMJ-2 Theory	Advanced Major paper-2	4	100	25	75	-	10	30	-
	AMJ-3 Practical	Advanced Major practical-3	4	100	-	-	100	-	-	40
		Total Credit-	160							

Abbreviations:

AEC – Ability Enhancement Courses

SEC – Skill Enhancement Courses

IAP – Internship/Apprenticeship/Project

MDC – Multi Disciplinary Courses

MJ – Major Disciplinary/Interdisciplinary Courses

DMJ – Double Major Disciplinary/Interdisciplinary Courses

MN – Minor Disciplinary/Interdisciplinary Courses

MN – Minor Vocational Courses

AMJ – Advance Major Disciplinary/Interdisciplinary Courses

RC – Research Courses

UNIVERSITY: Binod Bihari Mahto Koylanchal University, Dhanbad

Semester wise courses in Home Science

Four year under graduate programme (2022 onwards)

Major/Advanced Major Paper

Credits: 4 (Theory:4, Practical: 4)

Courses			Examination Structure			
Sem	Code	Paper Title	Credit	Mid Sem Theory (F.M.)	End Sem Theory (F.M.)	End Sem Prac/Viva (F.M.)
I	MJ-1	Fundamental of food and nutrition	4	25	75	-
II	MJ-2	Introduction to human development	4	25	75	-
	MJ-3	Practical-I	4	-	-	100
III	MJ-4	Fundamental of family resource management	4	25	75	-
	MJ-5	Practical-II	4	-	-	100
IV	MJ-6	Introduction to clothing and textile	4	25	75	-
	MJ-7	Introduction to extention education	4	25	75	-
	MJ-8	Practical-III	4	-	-	100
V	MJ-9	Applied food and nutrition	4	25	75	-
	MJ-10	Family relationship	4	25	75	-
	MJ-11	Practical-IV	4	-	-	100
VI	MJ-12	Early childhood care and education	4	25	75	-
	MJ-13	Food preservation and processing	4	25	75	-
	MJ-14	Home decoration	4	25	75	-
	MJ-15	Practical-V	4	-	-	100
VII	MJ-16	Communication process in development	4	25	75	-
	MJ-17	Nutritional management	4	25	75	-
	MJ-18	Advance clothing and textile	4	25	75	-
	MJ-19	Practical-VI	4	-	-	100
VIII	MJ-20	Advance human physiology	4	25	75	-
	RC-1	Research methodology Home Sc.	4	25	75	-
	RC-2	Project work/dissertation/research internship/field work	8	-	-	200
	OR AMJ-1	Community nutrition	4	25	75	-
	AMJ-2	Therapeutic nutrition	4	25	75	-
	AMJ-3	Practical-VII	4	-	-	100

Year wise structure of U.G. Programme in Home Science

UNIVERSITY: Binod Bihari Mahto Koylanchal University, Dhanbad

Subject: Home Science

Minor Paper

Credits: 4 (Theory:3, Practical: 1)

Courses			Examination Structure			
Sem	Code	Paper Title	Credit	Mid Sem Theory (F.M.)	End Sem Theory (F.M.)	End Sem Prac/Viva (F.M.)
I	MN-1A	Human nutrition	3+1	15	60	25
III	MN-2A	Therapeutic nutrition	3+1	15	60	25
V	MN-3A	Introduction to textiles & clothing	3+1	15	60	25
VII	MN-4A	Introduction to Home Management and Interior decoration	3+1	15	60	25

MDC (Multi Disciplinary Courses)

Credits : 3

Courses			Examination Structure			
Sem	Code	Paper Title	Credit	Mid Sem Theory (F.M.)	End Sem Theory (F.M.)	End Sem Prac/Viva (F.M.)
	MDC-1	Introduction to Home Science	3	-	75	-

Year wise structure of U.G. Programme in Home Science

- **Learning Outcome Based Approach to Curriculum Planning**

The degree is awarded on the basis of demonstrated achievement of outcomes of knowledge, skill and community interventions and academic standards expected from Home Science. Learning outcomes specify what graduates completing a particular programme of study are expected to know, understand and be able to do at the end of their programme of study.

The main objectives of the U.G. Home Science Programme are :-

- Enable students with knowledge, skills, attitudes and values to do community work in all areas of Home Science.
- Ensure global competitiveness and excellence in theory and practice
- Prepare the students for higher education.
- Train the students to take science from lab to community to improve quality of life of people.

Some of the characteristics attributes of U.G. Home Science include:-

- **Disciplinary Knowledge:** Students are able to demonstrate comprehensive knowledge and understanding of major concepts of the five Home Science disciplines (Food & Nutrition, Human Development & Childhood Studies, Fabric & Apparel Science, Development Communication & Extension, Resource Management & Design Application) with support of different allied subjects of Life Science, Physical Science and the Social Science.
- **Communication Skills:** Students are competent in public speaking, writing and interpersonal skills. Students are exposed to technical and soft skills. Communication is a core area in the discipline of Home Science.
- **Critical thinking:** Students develop critical sensitivity towards both community issues and process. They learn to do lateral thinking developing out of the box solution and effective problem solving skills to address community issues.
- **Cooperative/team work:** Students have basic management skills for independently organizing events, resource mobilization and leading community based projects and initiatives.
- **Multicultural competence:** Students are confident of working in diverse socio-cultural contexts. They are able to effectively engage with multicultural groups and teams. They have sensitivities of cross cultural and ethnic diversity which they can apply to different settings.
- **Lifelong learning:** Students are capable to self-directed/paced learning for the continued learning and holistic development for meeting their professional and personal needs in varying environment and changing contexts.

Program Outcomes (POs)

- The program has been framed in such a manner that students receive real feel of quality education by touching all aspects of human lifecycle.
- Designed to enhance the capacity of students to understand universal and domain-specific values in Home Science.
- Develop the ability to address the complexities and interface among of self, social and national priorities.
- Inculcate both generic and subject-specific skills to succeed in the employment market and standards of life.
- Promote research and innovation and design (product) development favouring all the disciplines in Home Science.
- This programme develops scientific and practical approach among the students which helps in their day-to-day life.
- Develop professional skills in food, nutrition, textiles, housing, product making, communication technologies and human development.

Syllabus for Undergraduate Certificate Programme

Semester-I

Major Theory Paper - I

Home Science

Fundamentals of Food and Nutrition

HSC-MJ-1(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To understand the basic concept of Food and Nutrition.
2. Develop the understanding of the role of various nutrients & their requirements, deficiency, excess and metabolism of nutrients.
3. To learn about nutritional contributions of different food stuffed.
4. To learn about different methods of improving nutritional quality of food.

Theory :

Unit-I Meaning and Definition of Nutrition- Optimum nutrition, Good nutrition and Balance diet.

Meaning and Definition of Nutrients – Classification of nutrients :
Macronutrients and Micro nutrients.

Functions of food and its significance – Physiological functions, social work and psychological functions.

Unit-II Macronutrients :

Carbohydrate : Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess.

Protein : Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess.

Fat: Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess.

Unit-III Micronutrients :

Minerals: Introduction structure, classification, function, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency and excess of calcium, iron, iodine, sodium, potassium, phosphorous and zinc.

Vitamins : Fat soluble vitamins (A, D, E, K) : Introduction, functions, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency.

Water soluble vitamins (Thiamine, Riboflavin, Niacin, Pyridoxine, Folic Acid & Vitamin C) : Introduction, functions, dietary sources, recommended dietary allowances, clinical signs and symptoms of deficiency.

Unit-IV Water : Introduction, structure, properties and function, water balance in body, water activity, quality of drinking water.

Unit-V Digestion, Absorption and Metabolism :

Carbohydrate : Digestion in mouth, stomach, duodenum, small intestine, large intestine, absorption of carbohydrate and metabolism of carbohydrate.

Protein: Digestion in mouth, stomach, duodenum, small intestine, large intestine, absorption of protein and metabolism of protein.

Fat: Digestion in mouth, stomach, duodenum, small intestine, large intestine, absorption of fat and metabolism of fat.

Recommended Books:

- | | |
|-----------------------------|-------------------|
| 1. Food & Nutrition | M Swaminathan |
| 2. Food Science | Mudambi, S.R. |
| 3. Nutritional Science | B. Sri Lakshmi |
| 4. Aahar & Poshan | Verma & Pandey |
| 5. Aahar evam Poshan Vigyan | Dr. Aasha Kumari |
| 6. Aahar & Poshan | Dr. Reena Khanuja |

Syllabus for Undergraduate Certificate Programme

Semester-II

Major Theory Paper - II

Home Science

Introduction to Human Development

HSC-MJ-2(T)

Credit -04 (Lecture-60)

Full Marks 100

SIE-25

ESE-75

Pass Marks-40

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To learn about basic concepts of human development and their stage & principles.
2. To understand pre-natal and post-natal development of children.
3. To sensitize the students towards intervention in the field of human development.
4. Develop an understanding about the need and importance of studying human growth and development across life span.

THEORY

Unit – I Human development:

- Historical backgrounds of human development.
- Meaning and definition of human development
- Scope or subject matter of human development
- Characteristics and importance of human development.

Unit- II Growth and development :

- Meaning and definition of growth and development
- Different aspects of growth
- Principles of development
- Factors affecting growth and development.
- Difference between growth and development.

Unit-II Prenatal development :

- **Conception & Characteristics of prenatal development.**
- **Stages of prenatal development: Period of ovum, period of embryo, period of foetus.**
- **Emotional and motor development in prenatal stage.**
- **Factors affecting prenatal development.**

Unit-IV Various aspects of human development :

- **Infancy and childhood**

Physical development : Development of external and internal organs, factors affecting the physical development.

Motor Development : Meaning and kinds of motor development, importance of motor development in life, development of different motor abilities and factor affecting motor development.

Social Development : Meaning and the process of social development, factors affecting social development.

Emotional Development : Meaning and definition of emotion, characteristics of emotional behaviour, factors affecting emotional development and types of emotions.

Language Development : Meaning, importance of language development, stages in speech development, disorder of speech, factors affecting language development.

Cognitive Development : Meaning, intelligence, piaget's principles of cognitive development, factors influencing the intelligence.

- **Adolescence :** Introduction, Characteristics and factors affecting physical development, social development, emotional development, cognitive development and moral development.

Unit-V Personality development :

Meaning and definition of personality, types of personality, characteristics of personality development of infancy, childhood and adolescence. Factors influencing the development of personality.

Recommended Books:

1. Bal Vikas & Parivarik Sambandh : Dr. Mathureshwar Parik.
2. Mantrikala & Shishu Klayan : Dr. G.P. Shairi
3. Manav Vikash : Barma & Pandey
4. Parivarik Sambandh : Barma & Pandey
5. Child Development : Hurlock, E.B.
6. Bal Vikas : Nita Agarwal

Syllabus for Undergraduate Certificate Programme

Semester-II

Major Practical Paper – I

Home Science

HSC-MJ-3(P)

Full Marks:100

Credit: 04(Lecture 120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment	= 70 marks
Practical record notebook	= 10 marks
Specimen	= 10 marks
Viva-voce	= 10 marks

PRACTICALS

UNIT- I : Classify food on the basis of nutrients : Protein, Iron, Calcium, Vitamin-A, Vitamin-C, Carbohydrate.

UNIT- II : Food preparation, understanding the principles involved, nutritional quality and protein size (5-7). Commonly consumed recipes in each food group :

- Cereals : Rice, Pulao, Chapati, Paratha, Poori, Pastas, Poha
- Pulses : Whole, dehusked dal, Sambhar, Chole, Rajmah, Dhokla
- Vegetable : Vegetable soup, dry preparation, vegetable curries.
- Milk and Milk products : Kheer, Custard, Gulab-Jamun.
- Meat, Fish and Polutry preparations.
- Egg preparations : Boild, Poached, fried.

UNIT- III : Preparation of an Album of :

- a. Height and weight chart of growing children.
- b. Visit to an Aanganwadi.
- c. Pictorial chart of motor development for the child of zero to one year.

UNIT- IV : Preparation of balanced diet of one day for :

- Infancy
- Early childhood (preschool child)
- Late childhood (school going child)
- Adolescents.

UNIT- V : Preparation an album to show the :

- Characteristics features and patterns of children's clothes.
- Characteristics features and patterns of children's books.

UNIT- VI : Write a report on the personal and social development of adolescents.

Note : No Internal Examination.

Syllabus for Undergraduate Diploma Programme

Semester-III

Major Theory Paper - IV

Home Science

Fundamentals of Family Resource Management

HSC-MJ4-(T)

Credit -04 (Lecture-60)

Full Marks 100

SIE-25

ESE-75

Pass Marks-40

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Group A is compulsory** which will contain two questions. **Question No. 1 will be of very short answer type** consisting of five questions of 1 mark each. **Question No. 2 will be short answer type** of 5 marks. **Group B will contain descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To understand about management process and family resource.
2. To learn about management of money and energy.
3. Comprehending the purpose of managing resources
4. Setting realistic goals and being practical and prudent in the use and management of limited resources by making intelligent decisions.

THEORY

UNIT-I Home Management:

- Meaning and definition of home management.
- Characteristics of home management
- Importance and objectives of home management.
- Qualities of a home maker.

Unit-II Decision making process :

- Definition and characteristics of decision making
- Steps of decision making
- Types of decision making

- Factors affecting decision making process

Unit-III Motivating factors of management :

- Value : Origin and development of values, types of values.
- Goals : Meaning, classification of goals
- Standards : Meaning, classification, factors affecting standard.

Unit IV (A) Family Resources : Meaning, types (Human and Non-Human), characteristics of resources, importance of family resources, factors affecting family resources.

(B) Money Management :

- Family Income : Characteristics, types, factors affecting family income, sources of family income.
- Family expenditure : Types, factors affecting family expenditure.
- Family Budget : Definition, importance, types, important point of budget, steps in preparing a budget.
- Saving : Meaning, importance, factors affecting saving, means of saving i.e. Bank, Post office, Life insurance, private and public sector scheme, provident fund scheme (function, objective)
- Investment : Meaning, importance, types of investment, factors affecting investment.

Unit-V – Management of Energy:

Meaning, definition, fatigue and its types, measures to avoid fatigue, definition of work simplification, method of simplification of various family activities. Steps of management of energy.

Recommended Books:

- | | |
|--|----------------------|
| 1. Grih Prabandh | : Dr. G.P. Shairi |
| 2. Grih Sazza & Grin Vayvastha | : Dr. S.P. Sukhiya |
| 3. Parivarik Sadhno ki Vavyastha | : Barma & Pandey |
| 4. Home Management | : Vargese M.A. |
| 5. Management in family living | : Nickell and Dorsey |
| 6. Family Resource Management
& Interior Decoration | : B. Bhagava |

Syllabus for Undergraduate Diploma Programme

Semester-III

Major Practical Paper – II

Home Science

HSC-MJ-5(P)

Full Marks:100

Credit: 04(Lecture 120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 70 marks

Practical record notebook = 10 marks

Specimen = 10 marks

Viva-voce = 10 marks

PRACTICALS

UNIT-I : Preparation of family budget for :

Lower income group

Middle income group

High income group

UNIT- II : Comprehend and give a write up on values held values held and goals set for

Infancy

pre school children

school going children

adolescents

UNIT- III : Identify resources in and around your family, their uses and benefits accrued.

UNIT- IV : Time and Motion studies for simplifying work – Flow process chart.

UNIT- V : Survey on the service in context of saving and investment.

Bank – Account opening, Account handling, cheque books & their operation, closure of account.

LIC – Policies, premium and benefits of LIC

Post Office – Operation of different saving accounts.

UNIT- VI : Prepare a pattern of family account keeping.

Note : No internal Examination.

Syllabus for Undergraduate Diploma Programme

Semester-IV

Major Theory Paper - VI

Home Science

Introduction to Clothing and Textile

HSC-MJ-6(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To get acquaint with different textiles and their performances.
2. Impart knowledge on different textiles.
3. Develop to skills for identification of different fibers and fabrics
4. Understand different types of yarns and weaves.

THEORY

UNIT-I Textile: Importance of clothes, history of textile and importance of textile.

Classification of textile fibres : Filament, staple fibres. Natural and artificial fibres.

Unit-II Natural Fibres : Vegetable fibres: Cotton fibres : History, process of manufacturing of cotton textile, properties of cotton fibres.

Linen : History, manufacturing of linen, properties of linen fibres, finishing.

Animal Fibres : Silk : Origin and history, manufacturing of silk fibres, types of silk, properties of silk fibre.

Wool : History, sources of wool, classification of wool, types of woollen clothes, manufacturing of wool, properties of wool.

Unit-III (A) Man made Fibres :

Rayon : History, production of rayon, properties of rayon fibres.

(B) Synthetic fibres :

Nylon : History, manufacturing of nylon fibre, types of nylon fibres, properties of nylon fibres.

Polyester : History, properties of polyester fibres.

Unit-IV Yarn construction : Spinning, yarn construction from fibres, different stages of yarn construction.

Weaving : Loom, types of weaving, points to be considered while weaving.

Unit-V Finishes : Meaning and definition, aims of finishing, factors influence the type of finish, methods of finishing – Mechanical and Chemical.

Recommended Books:

- | | |
|---|--------------------|
| 1. Vastr Vigyan ke Sidhant | : Dr. Rani Khanuja |
| 2. Vastr Vigyan | : Barma & Pandey |
| 3. Textile Technology | : N.N. Mahapatra |
| 4. Introduction of Textile Science | : S.J. Kadolph |
| 5. Fundamentals of Textiles
& their care | : S. Dantyagi |

Syllabus for Undergraduate Diploma Programme

Semester-IV

Major Theory Paper - VII

Home Science

Introduction to Extension Education

HSC-MJ-7(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. Learn about the concept of extension, extension approaches and models.
2. Be aware of the extension models in practice and their scope in facilitating development.

THEORY

UNIT I Meaning, definition, need, scope, objectives and importance of extension education. History of extension education.

UNIT-II Characteristics of extension education, philosophy of extension education, principles of extension education.

UNIT-III Extension teaching Methods:

Difference between formal education and extension (informal) education.
Steps in extension teaching.

Classification of extension teaching methods according to use and according to form or nature, combined use of extension teaching methods, factors affecting choice and use of extension teaching methods.

UNIT-IV Rural Sociology:

Meaning, definition, characteristics of rural life.

Extension Worker : Functions and role of extension worker, qualities of extension worker.

Rural Leadership : Meaning, definitions, importance and need, characteristics of rural leader, role and functions of leader.

Recommended Books:

- | | |
|---------------------------------------|---------------------------|
| 1. Understand Extension Education | : M. Nisha |
| 2. Extension Education | : U.K. Singh & A.K. Nayak |
| 3. Prasar Shiksha & Sanchar Vayvastha | : Shaw & Shaw |
| 4. Prasar Shiksha | : Dr. Harpalani |
| 5. Grin Vigyan Prasar Shiksha | : Verma & Pandey |

Syllabus for Undergraduate Diploma Programme

Semester-IV

Major Practical Paper – III

Home Science

HSC-MJ-8(P)

Full Marks:100

Credit: 04(Lecture 120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 70 marks

Practical record notebook = 10 marks

Specimen = 10 marks

Viva-voce = 10 marks

PRACTICALS

UNIT- I : Weaving :

Loom (different parts of Loom and their functions.

Different types of weaving – Plain, Rib, Basket, Twill, satin, satain.

UNIT- II : Identification of Textile Fibres :

Visual or appearance test, length and diameter test, feeling test, fibre breaking test, burning test.

UNIT- III : Prepare a chart to show the classification of different types of textile fibres.

UNIT- IV : Preparation of posters, flash card and puppets.

UNIT- V : Analysis of different programmes: Visit to specific measures for women and children such as ICDS, Aanganwadi.

UNIT- VI : Leaflet making.

Note : No Internal Examination.

Syllabus for Bachelor's Degree Programme

Semester-V

Major Theory Paper - IX

Home Science

Applied Food & Nutrition

HSC-MJ-9(T)

Credit -04 (Lecture-60)

Full Marks 100

SIE-25

ESE-75

Pass Marks-40

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To study the different methods of cooking foods and their effect of nutritive value of different nutrients.
2. Obtain knowledge of different food groups their composition and nutrients present in the food.
3. To study the methods of improving nutritional quality of food.

THEORY

UNIT- I- Composition and Nutritional Contributions.

Cereals :- Structure, Nutritional composition, effect of germination and fermentation on cereals.

Pulses & legumes :- Nutritional composition, effect of heat, germination and fermentation, importance of pulses in human nutrition.

Vegetables:- Composition, Nutritional value, type of vegetables, effect of heat on vegetables.

Fruits :- Types, Nutritional composition, effect of heat, uses of fruits in daily diet.

Milk and Milk Products :- Nutritional composition, type of milk, milk products like curd, butter, ghee, paneer, cheese.

Nuts & Oilseeds :- Nutritional composition, types of nuts, types of oil seed.

Meat, Fish, Poultry eggs : Structure, Nutritional composition, factors effecting coagulation of egg protein.

Sugar, beverages :- Nutritional composition types of sugar and beverages.

Spices & Condiments :- Nutritional composition, major and minor spices of India.

Unit-II - Cooking :- Introduction, different methods of cooking :

Through water, oil, steam, pressure cooking, air cooking.

Unit-III- Advantages of cooking, Disadvantages of cooking:

Effect of cooking and heat on nutritive value of carbohydrate, protein, fat, minerals and vitamins.

Changes take place during cooking : Changes in colour, shape, texture, smell and taste.

Unit-IV- Methods of Improving Nutritional quality of food :

Germination : Method, changes in the nutritive value of different nutrients.

Fermentation : Method, changes in the nutritive value of different nutrients.

Fortification and Enrichment : Method, changes in the nutritive value of different nutrients.

Supplementation : Method, changes in the nutritive value of different nutrients.

Recommended Books:

- | | |
|------------------------|-------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Ahhar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Postan Vigyan | : Dr. Asha Kumari |

Syllabus for Bachelor's Degree Programme

Semester-V

Major Theory Paper - X

Home Science

Family Relationship

HSC-MJ-10(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To Acquire knowledge and insight about marriage and family systems in India.
2. To Become aware of the changing roles and relationship within family.
3. To Understand the families in crisis.

THEORY

UNIT –I - The Family: Origin, meaning, definition, characteristics of family, Family as a Basic social institution.

Types of family: Joint family & nuclear family (characteristics merits and demerits). Difference between nuclear family and joint family, functions of family.

UNIT-II – Interrelationship within family : Family life cycle, its importance, place of members in the family, their role in changing society.

Family relationship : Introduction, parent child relationship, sibling relationship, relationship with in-laws.

UNIT-III- Families and Problems :

(A) Marital disharmony, families in distress, violence, dowry, struggle for existence.

(B) **Intervention for families in trouble** : Need, counselling (premarital and post marital). Family welfare and rehabilitation policies and programmes implemented by government.

UNIT-IV- Marriage : Meaning, definition, motives and functions of marriage. Types of marriage, present condition of marriage in India, challenges in marriage.

UNIT-V- Education & Counselling for marriage and family life.

Recommended Books:

1. The Urban family: A study of Hindu social system: A. K. Lal
2. Parivarik Sambandh : Barma & Pandey
3. Family Dynamics : Debolina Sahay

Syllabus for Bachelor's Degree Programme

Semester-V

Major Practical Paper – IV

Home Science

HSC-MJ-11(P)

Full Marks:100

Credit: 04(Lecture 120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 70 marks

Practical record notebook = 10 marks

Specimen = 10 marks

Viva-voce = 10 marks

PRACTICALS

UNIT I : Nutritional contribution of different types of salad

Vegetable Salad

Fruit Salad

Mixed Salad

Beverages : Tea, Coffee, Soup (Veg & Non-Veg)

UNIT II : Development of food products by germination : Sprouts

UNIT III : Development of food products by fermentation : Idli, Dhokla

UNIT IV : Nutritional contribution of multigrains products like chapatti, puree, dhuska, chila.

Nutritional contribution of milk and milk products : Kheer, Curd, Paneer

UNIT V : A comparative study of rural and urban family under following perspectives : Social, Economical and Religious.

UNIT VI : A survey on the problems of women in society

- A survey on the marital status and adjustments problem in the modern era.
- Prepare a report by interviewing the old age people to show their adjustments and difficulties in family relationship.

Note : No Internal Examination.

Syllabus for Bachelor's Degree Programme

Semester-VI

Major Theory Paper - XII

Home Science

Early Childhood Care & Education

HSC-MJ-12(T)

Credit -04 (Lecture-60)

Full Marks 100

SIE-25

ESE-75

Pass Marks-40

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objectives:

1. To gain knowledge about different day care services provided for children.
2. To understand about importance of early childhood education.
3. To understand importance of play & family relationship in the development of children.

UNIT

- I. **Child rearing practices:** Introduction, need, different technique of child rearing. National policy on education 1986 and Early childhood care and education-ECCE, Objective and services of ICDS.
- II. **Early childhood Education :** Introduction, need, importance.
School : Need and Importance of school, role of school, nursery, Montessori system, Aanganbadi, kindergarten method, Balwadi Education Method.
- III. **Child parent relationship:** Introduction, causes and impact of under protection and over protection.

- IV. **Play**: Introduction, definition, types of play, characteristics of child play, importance of play in development. Theory of play, factors effecting the play activities of the children.

Substitute care at home & outside : Introduction, need, importance and different types of substitute care like day care centre or crèche etc.

Recommended Books:

1. Bal vikash & parivarik Sambandh : Dr. Mathureshwar Parik.
2. Matrikala & Shishu Kalyan : Dr. G.P. Shairi
3. Manav Vikash : Barma & Pandey
4. Parivarik Sambandh : Barma & Pandey
5. Child Development : Hurlock, E.B.
6. Bal Vikas : Nita Agarwal

Syllabus for Bachelor's Degree Programme

Semester-VI

Major Theory Paper - XIII

Home Science

Food Preservation & Processing

HSC-MJ-13(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain **descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Objective :

1. To gain the knowledge of role of microorganism in human being.
2. To understand the importance of microorganism in food spoilage.
3. To understand methods of food preservation.
4. To understand fruits and vegetables processing.

UNIT-I (A). Food preservation :

- Definition and importance of food preservation.
- Principle of food preservation
- Food which need to be preserved at various seasons.

(B) **Methods of food preservation** : Physical methods, drying, heat treatment, irradiation, high pressure processing, chemical preservatives and normal anti microbial compounds, biologically based preservation, system and probiotic bacteria.

UNIT-II (A). Food Spoilage : Causes of food spoilage, spoilage of different groups of food.

(B) Introduction and importance of microorganisms in food. Advantages and disadvantages of microorganisms in food.

UNIT-III Fermentation technology : Introduction of fermentation, types of fermentation. Use of yeast, milk product, fermented vegetable, beer, vinegar, fermented soya products.

UNIT-IV (A). Food Processing : Meaning and definition of food processing. Effect of food processing on nutritive value.

Fruits and vegetable processing : Canning with special reference to fruit and vegetables. Syrup and canned food, precaution to be taken.

Methods of Fruit concentration – Jam, Jelly.

(B) **Packaging :** Pickles, chutney, sauces.

Recommended Books:

- | | |
|------------------------|-------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Ahhar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Postan Vigyan | : Dr. Asha Kumari |

Syllabus for Bachelor's Degree Programme

Semester-VI

Major Theory Paper - XIV

Home Science

Home Decoration

HSC-MJ-14(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To understand about interior decoration
2. To understand about different types of flower arrangement
3. To understand about furniture and furnishing materials.
4. To understand different types of designs.

THEORY

UNIT-I- Interior Decoration :

Introduction, Meaning, Definition and Objectives of Home Decoration.

Principles of Art : Harmony, Balance, proportion, rhythm and emphasis.

Elements of Art : Line, Shape, Texture, Design, Light, Colour and Space

Design : Meaning and Types of design: Structural and decorative design, Difference between the designs.

UNIT-II- Colour and its role in home decoration :

Meaning of colour, functions and principles of colour – prang colour system, effect of colour on human mind, factors affecting the selection of colours in home decoration. Colour wheel.

UNIT-III- Light Management :

Meaning, types and need of light. Lighting arrangement in different rooms.

UNIT-IV- Flower Arrangement :

History and need, Home decoration by flowers, principle of art in flower arrangement. Types of flower arrangement.

UNIT-V- Furniture and furnishing :

Brief history of furniture, importance of furniture, selection of furniture, types of furniture, factors affecting purchase of furniture and furnishing materials.

Accessories of home decoration, care of furniture and furnishing materials.

Recommended Books:

- | | |
|----------------------------------|--------------------|
| 1. Grih Prabandh | :Dr. G.P. Shairi |
| 2. Grih Sazza & Grih Vayvastha | : Dr. S.P. Sukhiya |
| 3. Parivarik Sadhno ki vavyastha | : Verma & Pandey |
| 4. Home Management | : Vargesa M.A. |

Syllabus for Bachelor's Degree Programme

Semester-VI

Major Practical Paper – V

Home Science

HSC-MJ-15(P)

Full Marks:100

Credit: 04(Lecture120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 70 marks

Practical record notebook = 10 marks

Specimen = 10 marks

Viva-voce = 10 marks

PRACTICALS

UNIT 1 : Preparation of suitable play material for early childhood stage.

UNIT 2 : Preparation of food items for children of nursery school.

UNIT 3 : Survey and report writing on the work culture of Aanganbadi.

UNIT 4 : Preparation of Jam & Jelly.

UNIT 5 : Preparation of pickles, Chutney and Sauce.

UNIT 6 : Preparation of food items through fermentation technique: Idle, Dhokla, Uthapam.

UNIT 7 : Preparation of different food items by using different methods of preservation.

UNIT 8 : Different types of flower arrangement by using natural and artificial flower, presentation of Ikebana flower style.

UNIT 9 : Preparation of colour wheel on chart paper.

UNIT 10 : Market survey and report writing on different types of furnitures and furnishing materials.

UNIT 11 : Preparation of a chart on lighting arrangement of different rooms.

Note : No Internal Examination

Syllabus for Under Graduate Certificate Programme of Home-Science

Semester-I

Minor Theory Paper - IA

Human Nutrition

HSC-MN-1A(T)

Credit -03 (Lecture-45)

Full Marks 75

SIE-15

ESE-60

Pass Marks-30

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1 will be very short answer type** in Group A consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of 5 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Learning Objectives:

1. To understand the vital link between foods, nutrition and health.
2. Gain knowledge on functions, requirement and effects of deficiency of nutrients.
3. To understand the basic concept of food and nutrition, role of various nutrients and their requirement, deficiency and excess.

THEORY

UNIT-I- Basic concepts of nutrition

- Basic terms used is nutrition
- Understanding relationship between food, nutrition and health
- Function of food : physiological, psychological and social
- Basic food groups and concept of balanced diet.

UNIT-II- Nutrients

- Energy – Functions, sources and concept of energy balance.
- Functions, recommended dietary allowances, dietary sources, effects of deficiency and excess consumption on health of the following nutrients.
- Carbohydrates and dietary fibre.
- Lipids
- Fat soluble vitamins – A, D, E and K

- Water soluble vitamins – Thamin, Riboflavin, Naicin, Pyridoxine, Vitamin-B,12 and Vitamin-C
- Minerals – Calcium, Iron, Zinc and Iodine.

UNIT-III- Nutritional requirements for the following life stages :

- Infant
- Pre-school children
- School going children
- Adolescent children
- Adult men/women
- Old age
- Pregnant woman and lactating woman

Recommended Books:

- | | |
|------------------------|--------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Aahar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Poshan Vigyan | : Dr. Asha Kumari. |

Syllabus for Under Graduate Certificate Programme of Home Science

Semester-I

Minor Paper Practical – IA

HSC-MN-1A(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment	= 15 marks
Practical record notebook	= 05 marks
Viva-voce	= 05 marks

PRACTICALS

UNIT-I – Identification and preparation of chart on following nutrients :

Energy, Protein, Calcium, Fiber, Vitamin-A, Ascorbic acid and Vitamin-B.

UNIT-II – Presentation of all the basic food groups on chart paper.

UNIT-III – Meal Planning and Preparation of food items by using basic food groups for :

- Adult man/woman of different activity levels
- Pre-school children
- School going children
- Adolescent children
- Pregnant woman
- Infancy.

Note :- No Internal Examination

Syllabus for Under Graduate Diploma Programme of Home-Science

Semester-III

Minor Theory Paper - IB

Therapeutic Nutrition

HSC-MN-1B(T)
Credit -03 (Lecture-45)

Full Marks 75
SIE-15
ESE-60
Pass Marks-30
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1** will be very short answer type in Group A consisting of five questions of 1 mark each. **Group B** will contain descriptive type two questions of 5 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Learning Objectives:

1. To gain knowledge about therapeutic nutrition in different disease.
2. To understand mode of different feeding methods.
3. To understand about normal diet and modified diet.

THEORY

UNIT-I- Therapeutic nutrition :

- Introduction and definition of therapeutic diet.
- Principles of diet therapy
- Importance of diet therapy
- Objectives of diet therapy

UNIT-II- Modification of diet : Type and importance.

- Different types of therapeutic diet: Normal diet, soft diet, clear fluid diet, liquid diet and bland diet.

UNIT-III- Feeding methods : Introduction and types.

- Different feeding methods – Oral feeding, (Nasal) Tube feeding and nerve feeding.

UNIT-IV- Therapeutic Adaptation of the normal diet :

- Altering food composition.
- By changing the amount of nutrients in food.
- Change in calories
- Altering meal times
- By changing nutrition methods.

UNIT-V- Etiology, clinical features, nutritional management and diet planning for :

- Under weight and over weight
- Typhoid
- Constipation
- Heart disease : Hypertension
- Diabetes
- Peptic ulcer
- Hepatitis
- Kidney disease
- Tuberculosis

Recommended Books:

- | | |
|------------------------|--------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Aahar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Poshan Vigyan | : Dr. Asha Kumari. |

Syllabus for Under Graduate Diploma Programme of Home Science

Semester-III

Minor Paper Practical – IB

HSC-MN-1B(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS

UNIT-I – Planning, Preparation and Service of diets for the following :

Normal diets, soft diets, liquid diets and bland diets.

UNIT-II – Prepare modified diet for :

- Constipation
- Diabetes
- Cardio vascular disease

UNIT-III – Planning a day meal for deficiency disease

- Vitamin 'A' deficiency
- Calcium deficiency
- Anaemia
- Protein calorie malnutrition

Note :- No Internal Examination.

Syllabus for Under Graduate Bachelor's Degree of Home-Science

Semester-V

Minor Theory Paper - IC

Introduction to Textiles

HSC-MN-1C(T)
Credit -03 (Lecture-45)

Full Marks 75
SIE-15
ESE-60
Pass Marks-30
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1** will be very short answer type in Group A consisting of five questions of 1 mark each. **Group B** will contain descriptive type two questions of 5 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Learning Objectives:

1. To get acquainted with textile technical terms, the properties, identification, production and uses of various textile fibers, fabrics.
2. Develop the skills for identification of fibers, yarn and fabrics.
3. Understand different types of yarns, weaves, selection of textile.
4. Learn the methods of dyeing, printing and finishing of fabrics.

THEORY

UNIT-I- Introduction to textile fibres :

- Morphology of textile fibres
- Physical and Chemical properties of fibres
- Classification of textile fibres

UNIT-II- Production, manufacturing process, properties and usages of fibres:

- Natural fibre : Cotton, Flax, Silk and Wool
- Man made fibres : Rayon, Nylon, Polyester and Acrylic.

UNIT-III- Production and properties of yarns :

- Yarns construction

- Types of yarns : Staple and Filament
- Simple yarns, complex yarns
- Yarns properties
- Difference between threads and yarns.

UNIT-IV- Techniques of fabric construction

Weaving :

- Looms and its parts
- Classification of Basic Weaves – Plain, Twill, Satin.
- Novelty Weaves – Pile, Leno-Gauze, Honeycomb.
- Uses of fabrics with different weaves.

Knitting :

- Classification of knitting
- Construction and properties of warp and weft knitting
- Non-Wavers.

UNIT-V- Coloration and finishing of textiles :

Dyes :

- Fundamentals of dyeing
- Classification of dyes -
Direct, Act, Basic and Reactive dyes

Printing :

Styles of printing modern methods of printing

Finishing :

- Introduction of finishing
- Objective of finishing
- Classification and uses of finishing

Recommended Books:

1. Vastra Vigyan ke Sidhanth :Dr. Reena Khanuja
2. Vastra Vigyan : Verma & Pandey
3. Vastra Vigyan evam Paridhan : Dr. Brinda Singh

Syllabus for Under Graduate Bachelor's Degree of Home-Science

Semester-V

Minor Paper Practical – IC

HSC-MN-1C(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment	= 15 marks
Practical record notebook	= 05 marks
Viva-voce	= 05 marks

PRACTICALS

UNIT-I – Fibre identification test : Identification of natural and manmade fibers by following four methods.

- Visual test
- Burning test
- Microscopic test
- Chemical test

UNIT-II – Yarn identification : Single, Cord, Textured, Elastic, Monofilament and multifilament.

UNIT-III – Dyeing :

- Dyeing of cotton yarn and fabric with direct dyes.
- Dyeing of silk, wool and nylon yarn and fabrics with basic and acid dyes.
- Dyeing of polyester yarn and fabric with disperse dyes

UNIT-IV – Printing of fabrics : Batik and Block printing.

Note :- No Internal Examination.

**Syllabus for Under Graduate Bachelor's Decree Hons/Hons with
Research of Home-Science**

Semester-VII

Minor Theory Paper - ID

Interior Decoration

HSC-MN-1D(T)
Credit -03 (Lecture-45)

Full Marks 75
SIE-15
ESE-60
Pass Marks-30
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. **Question No. 1 will be very short answer type** in Group A consisting of five questions of 1 mark each. **Group B will contain descriptive type** two questions of 5 marks each, out of which any one to answer. **Class attendance score of 5 marks.**

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type five questions of fifteen marks each, out of which any three are to answer.

Learning Objectives:

1. To understand about interior decoration
2. To understand about different types of flower arrangement
3. To understand about furniture and furnishing materials.
4. To get acquainted with different types of accessories for home decoration.
5. To understand different types of design.

THEORY

UNIT-I- Interior Decoration :

Introduction, Meaning and Definition, Objectives of Home Decoration.

Principles of Art : Harmony, Balance, proportion, rhythm and emphasis.

Elements of Art : Line, Shape, Texture, Design, Light, Colour and Space

Design : Meaning and Types of design structural and decorative design and difference between the designs.

UNIT-II- Colour and its role in home decoration :

Meaning of colour, functions and principles of colour – prang colour system, effect of colour on human mind, factors affecting the selection of colours in home decoration. Colour wheel.

UNIT-III- Light Management :

Meaning, types and need of light. Lighting arrangement in different rooms.

UNIT-IV- Flower Arrangement :

History and need, Home decoration by flowers, principle of art in flower arrangement. Types of flower arrangement.

UNIT-V- Furniture and furnishing :

Brief history of furniture, importance of furniture, selection of furniture, types of furniture, factors affecting purchase of furniture and furnishing materials.

Accessories of home decoration, care of furniture and furnishing materials.

Recommended Books:

- | | |
|----------------------------------|--------------------|
| 1. Grih Prabandh | :Dr. G.P. Shairi |
| 2. Grih Sazza & Grih Vayvastha | : Dr. S.P. Sukhiya |
| 3. Parivarik Sadhno ki vavyastha | : Verma & Pandey |
| 4. Home Management | : Vargesa M.A. |

**Syllabus for Under Graduate Bachelor's Degree Hons/Hons with
Research of Home-Science**

Semester-VII

Minor Paper Practical – ID

HSC-MN-1D(P)

Full Marks:25

Credit: 01(Lecture 30)

Pass Marks: 10

Hours: 4

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 4Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS

UNIT-I – Flower arrangement in different styles : Natural flowers, artificial flowers and with the mixture of both, Ikebana flower arrangement.

UNIT-II – Preparation of a chart on colour wheel.

UNIT-III – Writing a report on the market survey of different types of furniture and furnishing materials.

UNIT-IV – Preparation of a chart on lighting arrangement in different rooms.

Note – No Internal Examination.

Syllabus for Four Year Under Graduate Programme of Home-Science

Multi Disciplinary Courses-I (MDC)

Introduction of Home Science

HSC-MDC-I(T)

Credit-03 (Lecture-45)

No Internal Examination

Full Marks 75

Pass Marks-30

Hours:3

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question No. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To make students enable to understand the domains if Home Science as a subject.
2. To make students aware of basics of Nutrition for a healthy life.
3. To make an understanding of life and Human Development.
4. To Develop understanding of resources and their utilisation.
5. To get acquainted with textile and their uses.
6. To understand Home Science extension education system for better community outreach programme.

THEORY

UNIT-I- Food and Nutrition :

Basic understanding of foods, nutrition. Health and its relationship.

Function of food, food groups as sources of various nutrients.

Macro and Micro nutrients, water

Principles of Meal Planning

A brief knowledge of nutrition during infancy, childhood, adolescence, adulthood, old age, pregnancy and Lactation.

UNIT-II- Human Development :

Definition, Introduction and importance of Human development.

Pre-natal development, stage and factors affecting pre-natal development.

Various developments during Infancy, childhood. Adolescence, adulthood, old age. (Physical, mental, social, emotional)

UNIT-III- Family resource management :

Concept, Definition and Scope of Home management.

Family as resource, meaning, classification and characteristics of resource, factor affecting, utilisation of resources.

Availability and management of resources of family – Money, time and energy.

UNIT-IV- Textiles and Clothing :

Textile fibers – its importance, properties and classification.

Uses of natural and manmade fiber.

Basic concept of yarn and fabric manufacturing process

Factors affecting selection of clothes.

Care and storage of clothes.

UNIT-V- Extension Education :

Definition, concept, nature, philosophy and principles of Home Science extension education.

Methods and Types of Communication, Elements of communication.

Audio visual aids – concept, classification, characteristics.

Extension teaching methods-according to use and nature.

Recommended Books:

1. Sri Lakshmi Food Science : New Age International Ltd.
2. Chadha R and Mathur P Nutrition : A life cycle approach Orient Blackswan,
New Delhi.
3. Singh, A, Foundation of Human
Development : A Life Span approach, New Delhi
4. Parivarik Shanshashan : Dr. Reena Khanuja
5. Sekhri S Textbook of fabric science
6. Prasar Shiksha : Dr. Geeta Pushp Shaw
7. Paralikar, Kalpana, R The Arts of
Teaching Home Science : Evira Publication, Baroda.

FORMAT OF QUESTION PAPER FOR SEMESTER INTERNAL EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 10 Marks:

F.M.=10	Subject/Code Time=1Hr.	Exam Year
General Instruction:		
<ul style="list-style-type: none">i. Group A carries very short answer type compulsory question.ii. Answer 1 out of 2 subjective/descriptive questions given in Group B.iii. Answer in your own words as far as practicable.iv. Answer all sub parts of a question at one place.v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[5x1=5]
	i.	
	ii.	
	iii.	
	iv.	
	v.	
<u>Group B</u>		
2.		[5]
3.		[5]
Note: There may be subdivisions in each question asked in Theory Examination.		

FORMAT OF QUESTION PAPER FOR SEMESTER INTERNAL EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 20 Marks:

F.M.=20	Subject/Code Time=1Hr.	Exam Year
General Instruction:		
i. Group A carries very short answer type compulsory question. ii. Answer 1 out of 2 subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable. iv. Answer all sub parts of a question at one place. v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[5x1=5]
	i.	
	ii.	
	iii.	
	iv.	
	v.	
2.		[5]
<u>Group B</u>		
3		[10]
4		[10]
Note: There may be subdivisions in each question asked in Theory Examination.		

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 50 Marks:

F.M.=50	Subject/Code Time=3Hrs.	Exam Year
General Instruction:		
i.	Group A carries very short answer type compulsory question.	
ii.	Answer 3 out of 5 subjective/descriptive questions given in Group B.	
iii.	Answer in your own words as far as practicable.	
iv.	Answer all sub parts of a question at one place.	
v.	Numbers in right indicate full marks of the question.	
<u>Group A</u>		
1.		[5x1=5]
	i.	
	ii.	
	iii.	
	iv.	
	v.	
<u>Group B</u>		
2.		[15]
3.		[15]
4.		[15]
5.		[15]
6.		[15]
Note: There may be subdivisions in each question asked in Theory Examination.		

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 60 Marks:

F.M.=60	Subject/Code Time=3Hrs.	Exam Year
General Instruction:		
i.	Group A carries very short answer type compulsory question.	
ii.	Answer 3 out of 5 subjective/descriptive questions given in Group B.	
iii.	Answer in your own words as far as practicable.	
iv.	Answer all sub parts of a question at one place.	
v.	Numbers in right indicate full marks of the question.	
	<u>Group A</u>	
1.		[5x1=5]
i.	.....
ii.	.....
iii.	.....
iv.	.....
v.	.....
2.	.....	[5]
3.	.....	[5]
	<u>Group B</u>	
4.	.....	[15]
5.	.....	[15]
6.	.....	[15]
7.	.....	[15]
8.	.....	[15]
Note: There may be subdivisions in each question asked in Theory Examination.		

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 75 Marks:

F.M.=75	Subject/Code Time=3Hrs.	Exam Year
General Instruction:		
i. Group A carries very short answer type compulsory question. ii. Answer 4 out of 6 subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable. iv. Answer all sub parts of a question at one place. v. Numbers in right indicate full marks of the question.		
1.	i. ii. iii. iv. v.	[5x1=5]
2.	[5]
3.	[5]
<u>Group B</u>		
4.	[15]
5.	[15]
6.	[15]
7.	[15]
8.	[15]
9.	[15]
Note: There may be subdivisions in each question asked in Theory Examination.		

FORMAT OF QUESTION PAPER FOR END SEMESTER UNIVERSITY EXAMINATION



Binod Bihari Mahato Koylanchal University, Dhanbad

Question format for 100 Marks:

F.M.=100	Subject/Code Time=3Hrs.	Exam Year
General Instruction:		
i. Group A carries very short answer type compulsory question. ii. Answer 4 out of 6 subjective/descriptive questions given in Group B. iii. Answer in your own words as far as practicable. iv. Answer all sub parts of a question at one place. v. Numbers in right indicate full marks of the question.		
<u>Group A</u>		
1.		[10x1=10]
	i. ii. iii. iv. v.	
	vi. vii. viii. ix. x.	
2.	.....	[5]
3.	.....	[5]
<u>Group B</u>		
4.	.....	[20]
5.	.....	[20]
6.	.....	[20]
7.	.....	[20]
8.	.....	[20]
9.	.....	[20]
Note: There may be subdivisions in each question asked in Theory Examination.		

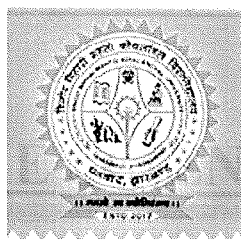
**SYLLABUS FOR FOUR YEAR UNDER GRADUATE
PROGRAMME (FYUGP)**

HOME SCIENCE

(UNDER CHOICE BASED CREDIT SYSTEM)

As per provision of NEP-2022

ACADEMIC SESSION: w.e.f. 2022-26



For

All Constituent/Affiliated Colleges Under Binod Bihari
Mahto Koylanchal University,
Dhanbad

SEMESTER ÷ VII AND VIII

Seema K.
23/7/2024

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VII

Major Theory Paper - XVI

Home Science

Communication Process in Development

HSC-MJ-16(T)

Credit -04 (Lecture-60)

Full Marks 100

SIE-25

ESE-75

Pass Marks-40

Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will **ontain** **descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. Understand the process of Communication in development work.
2. Develop skills in the use of methods and media.
3. Understand the concept of communication and its role in exchange of information.
4. Examine the models and barriers to communication.

THEORY

UNIT-I- Concept of Communication :

- Meaning, definition, nature, scope of communication, importance, need and purpose.
- Types of communication : Formal and informal communications.
- Functions of Communication : Information function, instructive functions, influence function and integrative function.
- Principle of effective communication.

Keema/pen,

UNIT-II- Communication process

Meaning and definition. Factors that help or hinder communication.

Models of communication : Arustotle's Shannon & Weaves Models, Berlos Models, Leagunis Model.

UNIT-III- Methods of communication to reach individual group & mass :

Personal methods, conference, interviews, house visits, exhibits, group discussion, demonstrations, work shop, videos, films, caption, radio, television, leaflet, chart, posters.

UNIT-IV- Role of Home Science in rural development :

Role of Food & Nutrition in the development of rural life.

Role of Family resources management in the development of rural life.

Role of clothing and textile in the improvement to status of rural women.

Role of Child Development and Extension Education to improve rural life.

UNIT-V Welfare Programmes for rural Women and Children :

Principles and objectives of ICDS, CARE, DWACRA (Development of Women and Children in Rural Areas) and various other programmes implemented by government and non-government organization.

Recommended Books:

- | | |
|---------------------------------------|---------------------------|
| 1. Understand Extension Education | : M. Nisha |
| 2. Extension Education | : U.K. Singh & A.K. Nayak |
| 3. Prasar Shiksha & Sanchar Vayvastha | : Shaw & Shaw |
| 4. Prasar Shiksha | : Dr. Harpalani |
| 5. Grin Vigyan Prasar Shiksha | : Verma & Pandey |

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Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VII

Major Theory Paper - XVII

Home Science

Nutritional Management

HSC-MJ-17(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To learn about nutritional requirement during different age group.
2. Study the growth and development during various stages of life span.
3. Understand the basics for recommending the dietary allowances.
4. Gain experience in planning adequate diets for different age groups and for different income groups.

THEORY

UNIT-I- Health :

- Concept and definition
- Dimensions of health – Physical health, mental health and social health
- Relationship between health and nutrition
- Role of dieticians in health care delivery.
- Factors effecting health – Biological factor, environment factor and social-cultural environment .
-

UNIT-II- Energy- Definition and energy requirement for different age groups.

Factors affecting energy requirements

- Basal metabolism rate
- physical activity
- muscular activities
- Age and physical growth
- Climate, specific dynamic action
- Physical health

UNIT-III- Balance diet – meaning of balance diet :

- Food groups
- contribution of various food groups in diet
- Factors affecting balance diet.

UNIT-IV- Meal Planning : Meaning, definitions and importance of meal planning.

- Principles of meal planning.
- Factors affecting meal planning and food related behaviour

UNIT-V Nutrition during childhood :

Growth and development, RDA, nutritional guidelines, nutritional concerns and healthy food choices.

- Infants
- Pre-school children
- School going children
- Adolescents.

UNIT-VI Nutrition during adulthood and old age:

Physiological changes, RDA, Nutritional guidelines, nutritional concerns, energy balance and healthy food choices.

- Adults
- Pregnant women
- Lactating mothers
- Elderly (old age).

Recommended Books:

- | | |
|------------------------|-------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Aahar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Postan Vigyan | : Dr. Asha Kumari |

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VII

Major Theory Paper - XVIII

Home Science

Advance Clothing & Textile

HSC-MJ-18(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain **descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. Develop an understanding about the basics of clothing construction.
2. Learn about the principles involved in clothing construction.
3. Learn to construct articles.
4. To acquaint students with the different textile their processing and choice and care of fabrics.
5. To develop skill in clothing construction.

THEORY

UNIT-I- Introduction :

- Selection of fabrics for clothing.
- Selection of wearing cloth.
- According to age
- According to climate
- According to occupation

- According to occasion
- According to laundry and care
- Factors affecting selection of clothing.

UNIT-II- Introduction to clothing construction :

- Principle of clothing construction.
- To take measurement – Anthropometric measurement. Instrument used for anthropometric measurements.
- Drafting – method of drafting, drafting tools
- Pattern – Introduction
 - Advantages of paper pattern
 - Making paper patterns.

UNIT-III- A. Traditional textiles of India :

- Dacca Muslin and sari
- Chander sari
- Petamber
- Patola
- Kalamdar
- Tie and Dye.

B. Traditional Embroidery of India

- Patch work of Bihar
- Phulkari of Panjab
- Kantha of Bengal
- Kashida of Kashmir
- Kasuti of Karnataka
- Chikankari of Uttar Pradesh
- Appliqué work of Rajasthan

C. Readymade and Homemade garments.

- Introduction
- Factors affecting selection of fabric.

UNIT-IV- Dyeing and Printing :

- Classification of dyes
- Natural dyes
- Synthetic dyes
- Dyeing applicability on different fibres.
- Dyeing of clothes at home- place for dyeing, testing clothes before dyeing, selection of dyes, preparation of clothes by dyeing process.
- Methods of dyeing
 - Dyeing of cotton fabrics
 - Dyeing of silk fabrics
 - Dyeing of woollen fabrics.
 - Tie and Dye – Methods of Tie and Dye.
- Batik Art – Method of doing Batick work
- Printing – Step in printing and method of printing.

UNIT-V Care and storage of fabric :

- Points to be noted for the care and storage of clothes.

Recommended Books:

- | | |
|---|--------------------|
| 1. Vastra Vigyan ke Sidhant | : Dr. Rani Khanuja |
| 2. Vastra Vigyan | : Barma & Pandey |
| 3. Textile Technology | : N.N. Mahapatra |
| 4. Introduction of Textile Science | : S.J. Kadolph |
| 5. Fundamentals of Textiles
& their care | : S. Dantyagi |

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VII

Major Practical Paper – VI

Home Science

HSC-MJ-19(P)

Full Marks:100

Credit: 04(Lecture120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment	= 70 marks
Practical record notebook	= 10 marks
Specimen	= 10 marks
Viva-voce	= 10 marks

PRACTICALS

UNIT 1 : Planning, preparing meal during pregnancy.

Planning, preparing meal for infants.

Planning, preparing meal for pre-school children.

Planning, preparing meal for school going children.

Planning, preparing meal for adolescents

Planning, preparing meal for adults.

Planning, preparing meal for old age.

UNIT 2 : Poster making, Leaflet Making

UNIT 3 : Visit to specific measures for women and children such as ICDS, Aanganwadi, Balwadi.

UNIT 4 : Needle work, tailoring equipments : Their uses and care.

UNIT 5 : Preparation of Garments : Peticoat, Blouse, Kurta-Pajama.

UNIT 6 : Preparation of different traditional Embroideries : Kantha, Phulkari, Kashmir ka Kashida.

UNIT 7 : Dyeing of clothes through different patterns.

Note : No Internal Examination

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VIII

Major Theory Paper - XX

Home Science

Advance Human Physiology

HSC-MJ-20(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain descriptive type two questions of 10 marks each, out of which any one to answer. Class attendance score of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To become acquainted with an elementary idea about human physiology.
2. To become acquainted with the structure and function of various organs.
3. To know about the role of enzymes and hormones in the body.
4. To know about the secretions and functions of endocrine glands.

THEORY

UNIT-I- Introduction to Human Physiology: Different branches of Human Physiology.

UNIT-II- Human Cell & Tissues : Introduction, structures and functions of different parts of cell.

UNIT-III- Digestive system :

- Structure and function of organs involved in the process of digestion.
- Enzymatic action with special reference to digestion, absorption and metabolism of food. Structure and function of liver gland.

UNIT-IV- Blood Circulatory system.

Blood : Structure and function of blood plasma, Red Blood Corpuscles, white blood corpuscles. Clotting of blood, blood pressure.

Heart : Structure, function.

Blood circulatory system, Lymphatic system.

UNIT-V- Endocrine glands and Hormones.

Meaning, definition and types of different endocrine glands.

Thyroid Gland : Structure, secretions, effect of over secretion and under secretion on body.

Pituitary Gland : Structure, secretions, effect of over secretion and under secretion on body.

Adrenal Gland : Structure, secretions, effect of over secretion and under secretion on body.

Pancreas : Structure, secretions, effect of over secretion and under secretion on body.

Parathyroid Gland : Structure, secretions, effect of over secretion and under secretion on body.

Reproductive Gland : Structure, secretions, effect of over secretion and under secretion on body.

Recommended Books:

- | | |
|------------------------|--------------------|
| 1. Sharir Kriya Vigyan | : Dr. Asha Kumari |
| 2. Sharir Kriya Vigyan | : Dr. Brinda Singh |
| 3. Food Science | : Mudambani, S.R. |
| 4. Nutritional Science | : B. Srilaxmi |
| 5. Poshan Vigyan | : S. P. Sukhiya |

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VIII

R.C. Theory Paper - I

Home Science

Research Methodology in Home Science

HSC-RC-1(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will **ontain** **descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions. Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To acquaint students with nature, concept and scope of research.
2. To give knowledge about the different steps of research.
3. To acquaint students with the methods of data collection.
4. To give knowledge about the hypothesis formulation.

THEORY

UNIT-I- Research

Meaning of research, nature and characteristics of research, objectives and importance, problems of research.

Different steps of social research.

UNIT-II- Research Design

Exploratory or formulative, descriptive, experimental, pure, applied, action, evaluation research.

UNIT-III- Different steps of research :

Selection of the problem, review of pertinent literature, determination of units, formulation of hypothesis, determination of scope of study, selection of respondents, determination of sources of data and tools and techniques of study, pre-testing of the tools, observation and collection of data, classification and tabulation of data, analysis and interpretation of data.

UNIT-IV- Data Collection :

Meaning of Data, Types of Data (Primary Data & Secondary Data), Sources of Data (Primary sources & secondary sources).

UNIT-V- Techniques of Data Collection :

Interview : Meaning, definition, objectives, types, merits and demerits.

Observation : Meaning, definition, characteristics, types, merits and demerits.

Questionnaire : Meaning, definition, characteristics, types, merits and demerits.

Schedule : Meaning, definition, characteristics, types, merits and demerits.

UNIT-VI- Hypothesis :

Meaning, utility, types, sources, importance or characteristics.

UNIT-VII- Sampling

Meaning and definition, characteristics, procedure, merits and demerits, types of sampling.

Recommended Books:

- | | |
|-------------------------|--------------------------------------|
| 1. Research Methodology | : Kothari, C.R. (2008) |
| 2. Research Methodology | : Dr. R.N. Trivedi & Dr. D.P. Shukla |

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VIII

R.C. Paper - II

Home Science

Research Fieldwork/Dissertation

HSC-RC-2(F/D)
Credit -08

Full Marks 200

Board guidelines for distribution of marks may be as follows or as appropriate.

1. Assessment of Project Synopsis : 75 marks
2. Assessment of Project Thesis : 100 marks
3. Viva-voce : 25 marks

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VIII

Advance Major Theory Paper - I

Home Science

Community Nutrition

HSC-AMJ-1(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain **descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To be familiar with community nutritional problem, causes and methods of eradication.
2. To know about common health hazards and methods of nutritional assessment.
3. To understand about role of welfare programmes and organisations for community health.

THEORY

UNIT-I- Basic concepts of community nutrition.

Factors influencing community nutrition.

UNIT-II- Assessment of the nutritional status

- Objective and importance
- Methods of Assessment
- Direct : Clinical signs, anthropometry, biochemical test.
- Indirect : Dietary surveys & vital statistics.

UNIT-III- Common Nutritional problems in India :

Aetiology, prevalence, clinical feature and preventive measures of :-

- Under nutrition – Protein, energy malnutrition, nutritional anaemia, Vitamin-A deficiency & Iodine deficiency disorder.
- Over nutrition – Obesity, cardiovascular disease, diabetes.

UNIT-IV- Important Nutritional Programme :

Role of National Nutritional Programme : Integrated Children Development Scheme (ICDS)

Mid-Day-Meal Programme (MDM) and National Nutritional Anaemia prophylaxis Programme (NNAPP).

Role of International Organizations : CARE, UNICEF, WHO, UNESCO.

UNIT-V- Nutritional Education :

Objectives, principles and scope of nutritional and health education, methods of nutrition education, importance of Nutritional education.

Recommended Books:

- | | |
|-------------------------------|--|
| 1. Research Methodology | : Kothari, C.R. (2008) |
| 2. Research Methodology | : Dr. R.N. Trivedi & Dr. D.P. Shukla |
| 3. Nutrition in the Community | : A. Wadhwa and S. Sharma
Elite Publishing House. |

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VIII

Advance Major Theory Paper - II

Home Science

Therapeutic Nutrition

HSC-AMJ-2(T)
Credit -04 (Lecture-60)

Full Marks 100
SIE-25
ESE-75
Pass Marks-40
Hours:3

Instructions to Question Setter for Semester Internal Exam

There will be two groups of questions. Group A is compulsory which will contain two questions. Question No. 1 will be of very short answer type consisting of five questions of 1 mark each. Question No. 2 will be short answer type of 5 marks. Group B will contain **descriptive type** two questions of 10 marks each, out of which any one to answer. **Class attendance score** of 5 marks.

Instructions to Question Setter for End Semester Exam (ESE):

There will be two group of questions Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

Learning Objectives:

1. To gain knowledge about therapeutic nutrition in different disease.
2. To understand mode of different feeding methods.
3. To understand about normal diet and modified diet.

THEORY

UNIT-I- Therapeutic nutrition :

- Introduction and definition of therapeutic diet.
- Principles of diet therapy
- Importance of diet therapy
- Objectives of diet therapy

UNIT-II- Modification of diet : Type and importance.

- Different types of therapeutic diet: Normal diet, soft diet, clear fluid diet, liquid diet and bland diet.

UNIT-III- Feeding methods : Introduction and types.

- Different feeding methods – Oral feeding, (Nasal) Tube feeding and nerve feeding.

UNIT-IV- Therapeutic Adaptation of the normal diet :

- Altering food composition.
- By changing the amount of nutrients in food.
- Change in calories
- Altering meal times
- By changing nutrition methods.

UNIT-V- Etiology, clinical features, nutritional management and diet planning for :

- Under weight and over weight
- Typhoid
- Constipation
- Heart disease : Hypertension
- Diabetes
- Peptic ulcer
- Hepatitis
- Kidney disease
- Tuberculosis

Recommended Books:

- | | |
|------------------------|--------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Aahar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Poshan Vigyan | : Dr. Asha Kumari. |

Syllabus for Bachelor's Degree with Hon's/Hons with Research

Semester-VIII

Advance Major Practical Paper – I

Home Science

HSC-AMJ-3(P)

Full Marks:100

Credit: 04(Lecture120)

Pass Marks: 40

Hours: 6

Instruction to Question Setter for

End Semester Examination (ESE):

There will be one Practical Examination of 6Hrs duration. Evaluation of Practical Examination may be as per the following guidelines:

Experiment	= 70 marks
Practical record notebook	= 10 marks
Specimen	= 10 marks
Viva-voce	= 10 marks

PRACTICALS

UNIT-I – Planning, Preparation and Service of diets for the following :

Normal diets, soft diets, liquid diets and bland diets.

UNIT-II – Prepare modified diet for :

- Constipation
- Diabetes
- Cardio vascular disease

UNIT-III – Planning a day meal for deficiency disease

- Vitamin 'A' deficiency
- Calcium deficiency
- Anaemia
- Protein calorie malnutrition

UNIT-IV – Visit to Block and Primary Health Centre.

UNIT-V – Visit to the school to review Mid-Day Meal programme implemented by the government.

UNIT-VI – Assessment of Nutritional status of 10 children through Anthropometric measurement .

Note :- No Internal Examination.

Deena Kumari
23/07/2024

SYLLABUS FOR FOUR YEAR UNDER GRADUATE PROGRAMME (FYUGP)

HOME SCIENCE

**Minor Paper from Vocational Studies/Discipline-2
As per provision of NEP-2022**

ACADEMIC SESSION: w.e.f. 2023-2027



**For
All Constituent/Affiliated Colleges Under Binod Bihari
Mahto Koylanchal University,
Dhanbad.**



Notification

In exercise of the powers vested in him under the Jharkhand State Universities Act 2000 as amended up-to-date, the Vice-Chancellor is pleased to constitute a Board of Studies (BOS) for the Department of Home Science, comprising of following members for a period of one year from the date of notification :

For Under Graduate


- | | |
|---|-------------------|
| Dr. Seema Kumari
Head, University Department of Home Science,
BBMKU. | - Chairperson |
| Dr. Manju Kumari
University Department of Home Science,
Ranchi University, Ranchi | - External Member |
| Dr. Reshma Xalxo
University Department of Home Science,
Ranchi University, Ranchi | - External Member |
| Dr. Chanchala Verma
University Department of Home Science, BBMKU. | - Member |
| Mrs. Asha Singh
Dept. of Home Science, Bokaro Mahila College,
Bokaro | - Member |
| Dr. Anju Verma
Dept. of Home Science, BSSM College, Dhanbad | - Member |
| Dr. Shanta Badaik
Dept. of Home Science, SSLNTM College, Dhanbad | - Member |
| Dr. Susmita Kumari
Dept. of Home Science, SSLNTM College, Dhanbad | - Member |


By order of the Vice-Chancellor
Sd/-

Registrar
Date 14/07/2023

No. BBMKU/R/ 1231/2023

- To:-
1. Persons concerned.
 2. Dean, Faculty of Science, BBMKU.
 3. Establishment Section, BBMKU, Dhanbad.
 4. P.A. to VC/PVC/F.A./R for Information to VC/PVC/F.A./R.
 5. Guard File.


Registrar
BBMKU, Dhanbad.


14.07.23

Dr. Manju Kumari

Ph.D., D.Litt.

Associate Professor

University Dept. of Home Science

Ranchi University, Ranchi-834008



Residence :

KARNIK COTTAGE

A/5, Gauri Enclave, Maitri Marg,

Bariatu, Ranchi-9 (Jharkhand)

Phone : 0651-2541319

Cell. : 9431585498

Date : 15/04/2024

This is to certify that 4 years under graduate program course in Home Science (Honors) at BBMK University Dhanbad Minor Course (2A to 2D) under U.G.NEP.2022 purposed syllabus is approved.

15/04/2024
External Member
Manju Kumari
Dr. Manju Kumari
Associate Professor
University Department of Home Science

Dr. (Mrs.) Reshma Xalxo

Residence :

M.A. Ph.D
University Department of Home Science
Ranchi University, Ranchi-834008 Jharkhand



"Ashirwad"
C/o Mr. Shital Oraon
209/C, Behind Rahul Automobile
Karamtoli, Bariatu Road, Ranchi-834009
(Jharkhand) Ph. -09431103818

Ref. No. 123/2023 dt 14.07.23

Date: 15/04/2024

This is to certify that 4 years under graduate program course in Home Science (Honors) at BBMK University Dhanbad Minor Course (2A to 2D) under U.G.NEP,2022 purposed syllabus is approved

Member

15/04/2024

Dr. Reshma Xalxo
Associate Professor

Ranchi University, Ranchi

**Members of Board of Studies of Four Years Under-Graduate
Programme (FYUGP) syllabus as per Guidelines of the (NEP-2022)
Binod Bihari Mahto Koyalanchal University, Dhanbad**

1. Chairman : Dr. Seema Kumari
2. External expert member : Dr. Manju Kumari
3. External expert member : Dr. Reshma Xalxo
4. Members : Dr. Chanchala Verma

Seema Kumari
(Dr. Seema Kumari) 02/05/2024

Head

University Department of Home Science
BBMKU, Dhanbad

Dr. Seema Kumari
Head of the U.G. Dept. of Home Science
B.B.M.K.U. University
Dhanbad-826001 (Jharkhand)

UNIVERSITY: Binod Bihari Mahto Koylanchal University, Dhanbad

Subject: Home Science

Syllabus for Minor from Vocational Studies/Discipline-2

Semester wise courses in Home Science for FYUGP 2023 onwards

Semester wise paper and examination structure for Home Science Minor papers from Vocational Studies/Discipline-2

Credits: 4 (Theory:3, Practical: 1)

Courses			Examination Structure			Pass Mark	
Sem	Code	Paper Title	Credit	End Sem Theory (F.M.) (Written Exam)	End Sem Prac/Viva Voce/ Demonstration / Skill Test (F.M.)	Theory	Practical/ Demonstration/Skill Test/ Viva Voce
I	MN-2A	Dietetics and Therapeutic Nutrition	4	75	25	30	10
III	MN-2B	Techniques of food preservation	4	75	25	30	10
V	MN-2C	Housing and Interior decoration	4	75	25	30	10
VII	MN-2D	Dyeing, printing and finishing of textile	4	75	25	30	10

Note : No Internal Examination will be conducted.

Syllabus for Undergraduate Certificate Programme

Home Science

Minor from Vocational Studies/Discipline-2A

Semester-II

HSC-MN-2A: Dietetics Therapeutic Nutrition

Credit -04 (Theory+Practical/Demonstration/Viva Voce/Skill Test)

Theory + Practical/ Demonstration/Skill Test/Viva Voce Marks :- 100	Pass Marks : 40
75 Theory + 25 Practical/Demonstration/Viva Voce/Skill Test	
(No Internal Examination)	

Instructions to Question Setter for End Semester Exam (ESE) Theory : 75 Marks

There will be two group of questions. Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

MN-2A : Theory

Lectures : 45

Objectives:

1. To understand the role of dietitian and to maintain good nutritional status, correct deficiencies or disease conditions of the patients.
2. To gain knowledge on the principles of diet therapy and designing or formulating different therapeutic diets for various disease conditions.
3. To develop skill to plan and prepare therapeutic diets for prevention of disease conditions.
4. To plan and execute a research plan regarding nutrition and dietitians practice.

Course content :

Unit-I. Concepts in Diet Therapy:

Growth and Scope of Dietetics

Purposes and Principles of Therapeutic Diets. Modifications of Normal Diets. Classification of the Therapeutic Diets.

Role of Dietitians characteristics of Dieticians.

Hospital Dietary Food Service, Diet Counseling. Team Approach to Nutritional Care, Principles of Food Prescription, Indian Dietetic Association.

Unit-II. Medical Nutrition Therapy in Obesity, underweight and Diabetes Mellitus:

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Etiology, pathophysiology, clinical symptoms, metabolic alterations, Assessment/Indicators, Lifestyle & Dietary guidelines for the following conditions.

Obesity

Underweight

Diabetes Mellitus (Acute and Chronic Complications of Diabetes)

Unit-III. Medical Nutrition Therapy in Gastro Intestinal Disorders and Diseases of the liver:

Etiology, pathophysiology, clinical symptoms, metabolic alterations, Assessment/Indicators, Lifestyle & Dietary guidelines for the following conditions.

Diarrhea

Dysentery

Constipation and Peptic Ulcer

Jaundice, Hepatitis, Fatty Liver, Cirrhosis .

Unit-IV Medical Nutrition Therapy in Diseases of the Cardio Vascular system and Kidney Diseases

Etiology, pathophysiology, clinical symptoms, metabolic alterations, Assessment/Indicators, Lifestyle & Dietary guidelines for the following conditions.

Atherosclerosis, Hyperlipidemia,

Hypertension

Acute and Chronic Renal Failure

Unit-V Medical Nutrition Therapy for Fever, Food Allergy and Cancer Febrile Conditions Acute and chronic infectious disease –

Typhoid, Tuberculosis and HIV and AIDS

Guidelines for management of tuberculosis and infectious diseases.

Food Allergy – Definition, Causes, Signs and Symptoms, Types of Allergies, Diagnosis, Dietary Modifications.

Cancer: Etiology, Metabolic alterations, Types of Cancer, Dietary Recommendation for Cancer Survivors. Nutritional therapy for cancer.

Recommended Books:

1. Srilakshmi, B. Dietetics, New Age International P. Ltd., New Delhi, 2018.
2. Dietary Guidelines of Indians – A manual, National Institute of Nutrition, Hyderabad, 2015.
3. Garg, M. Diet, Nutrition and Health, ABD Publishers, 2006.
4. Krause, M.V. and Mahan, L.K. Food, Nutrition and Diet Therapy, 9th Ed., W.B. Saunders Company, Philadelphia, 2019.
5. Maimun Nisha, Diet Planning for Diseases, Kalpaz Publishers, 2016.
6. Dietary Guidelines of Indians – A Manual, National Institute of Nutrition, Hyderabad, 2011.

Seema

7. Brown, J (2014). Nutrition now (7th ed). Wadsworth, USA, ISBN-13:978-1-33-93653-4, ISBN 10:1-133-93653-9.
8. Nelms M, Sucher K (2015). Nutrition Therapy and Pathophysiology. (3rd edition) Cengage Learning, USA. ISBN-13:978-1305111967, ISBN-10: 130511196n, New Delhi.

MN-2A: Practical/Demonstration/Skill Test/Viva Voce

Credit: 01

Lectures-30 (15x2)

Practical/Demonstration/Skill Test/Viva Voce: 25 Marks

(No Internal Exam)

Instruction to Question Setter for End Semester Examination (ESE):

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination will be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS

Preparation of Hospital Diets with respect to any one disease:

- Modification of Diets in Obesity
- Modifications of Diets in underweight
- Modifications of Diets in Diabetes Mellitus
- Diets for Febrile conditions – TB, Typhoid
- Modifications of Diets in Peptic Ulcer, constipation and Diarrhoea
- Modifications of Diets in Liver Diseases – Jaundice, Hepatitis and Cirrhosis
- Diets for Nephritis, renal Failure and renal Calculi, Protein Restricted Diets
- Diets for Cardiovascular diseases – Sodium Restricted, Fat controlled
- Modification of Diet for Cancer Patients and HIV Infected Person.

Seema Kumari

Syllabus for Undergraduate Diploma Programme

Home Science

Minor from Vocational Studies/Discipline-2B

Semester-IV

HSC-MN-2B: Techniques of Food Preservation

Credit -04 (Theory+Practical/Demonstration/Viva Voce/Skill Test)

Theory + Practical/ Demonstration/Skill Test/Viva Voce Marks :- 100

Pass Marks : 40

75 Theory + 25 Practical/Demonstration/Viva Voce/Skill Test

(No Internal Examination)

Instructions to Question Setter for End Semester Exam (ESE) Theory : 75 Marks

There will be two group of questions. Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

MN-2B : Theory

Lectures : 45

Objectives:

1. To learn the principles behind the methods of preservation.
2. To understand the stages of cookery and chemical characteristics in the preservation of fruits and vegetables.
3. To be able to formulate preserved food products.
4. To acquire skills to preserve different types of food items based on their perishability.

Course content :

Unit-I. Concept of food preservations:

Principles of food preservation

Importance of food preservation

Types of food spoilage by microorganism and by enzyme.

Food Preservatives : Use of salt, sugar, natural food preservatives and artificial preservatives.

Unit-II. Food Preservation by low temperature:

Freezing and Refrigeration : Introduction to refrigeration, cold storage and freezing.

Types of Freezing : Slow, quick

Introduction to thawing changes during thawing and its effect on food.

Seemata

Unit-III. Food Preservation by high temperature:

Thermal Processing – Commercial heat preservation like sterilization, pasteurization and blanching.

Unit-IV Food preservation by moisture control :

Drying and dehydration : Meaning and definition.

Difference between drying and dehydration.

Different types of dryers used in food industry.

Evaporation : Definition, name of evaporators used in food industry.

Unit-V Food Preservation by irradiation:

Introduction, units of radiation. kinds of ionizing radiation and mechanism of action.

Recommended Books:

- | | |
|------------------------|-------------------|
| 1. Food & Nutrition | : MS. Swaminathan |
| 2. Food Science | : Mudambi, S.R. |
| 3. Nutritional Science | : B. Srilakshmi |
| 4. Ahhar & Poshan | : Barma & Pandey |
| 5. Poshan Vigyan | : S.P. Sukhiya |
| 6. Aahar Postan Vigyan | : Dr. Asha Kumari |

MN-2B: Practical/Demonstration/Skill Test/Viva Voce

Credit: 01

Lectures-30 (15x2)

Practical/Demonstration/Skill Test/Viva Voce: 25 Marks

(No Internal Exam)

Instruction to Question Setter for End Semester Examination (ESE):

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination will be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS

1. Preparation of salted, dehydrated preserves (Traditional Indian varieties of chips, papads, khakhra, masala powder, onion, garlic and ginger powder) .
2. Preparation of Jam, Jelly, marmalades, sauce and squash, sakarpara.
3. Preparation and preservation of fruits juices.
4. Food preservation by fermentation technology (Idle, Dhokla)
5. Visit to food industry.

Seema

Syllabus for Undergraduate Bachelor's Degree

Home Science

Minor from Vocational Studies/Discipline-2C

Semester-VI

HSC-MN-2C: Housing and Interior Decoration

Credit -04 (Theory+Practical/Demonstration/Viva Voce/Skill Test)

Theory + Practical/ Demonstration/Skill Test/Viva Voce Marks :- 100	Pass Marks : 40
75 Theory + 25 Practical/Demonstration/Viva Voce/Skill Test	
(No Internal Examination)	

Instructions to Question Setter for End Semester Exam (ESE) Theory : 75 Marks

There will be two group of questions. Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

MN-2C : Theory

Lectures : 45

Objectives:

1. To know about the different aspects of housing.
2. To gain knowledge and interpret the elements and principles of art in interior design.
3. To get acquaint with different types of flower arrangement and floor decoration.
4. To get acquaint with furniture and furnishing materials.

Course content :

Unit-I. Housing:

Need of a house, difference between house and home. Ways to acquire house (own & rented). Factors influencing selection and purchase of house and site for house building.

Unit-II. House Planning:

Principles of house planning, planning different residential spaces in a house, planning house for different income groups.

Unit-III. Interior Designing:

Introduction to interior designing, importance of good taste.

Objectives of interior decoration.

Elements of Art: Line, shape, texture, colour, pattern, light and space, types of design.

Seema

Unit-IV Colour:

Importance of colours in home decoration, meaning, functions, principles of colour. Factors affecting selection of colour in home decoration.

Colour schemes.

Principle of design : Proportion, balance, rhythm, emphasis, harmony.

Unit-V Home Decors:

Furniture : History, Importance, Selection of furniture, types of furniture, quality of furniture.

Furnishing Materials : Curtains and curtain styles, draperies, floor covering, lighting.

Accessories : Wall painting, mirrors, wall art, sculpture, antiques, flower arrangement etc.

Recommended Books:

- | | |
|----------------------------------|--------------------|
| 1. Grih Prabandh | :Dr. G.P. Shairi |
| 2. Grih Sazza & Grih Vayvastha | : Dr. S.P. Sukhiya |
| 3. Parivarik Sadhno ki vavyastha | : Verma & Pandey |
| 4. Home Management | : Vargesa M.A. |

MN-2C: Practical/Demonstration/Skill Test/Viva Voce

Credit: 01

Lectures-30 (15x2)

Practical/Demonstration/Skill Test/Viva Voce: 25 Marks

(No Internal Exam)

Instruction to Question Setter for End Semester Examination (ESE):

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination will be as per the following guidelines:

Experiment	= 15 marks
Practical record notebook	= 05 marks
Viva-voce	= 05 marks

PRACTICALS

1. Preparation of colour wheel and colour schemes.
2. Flower arrangement and floor decoration (Rangoli & Alpana): Application of design, principles and elements of art, innovation of new styles.
3. Plans and elevation of different furniture pieces.
4. Preparing drawing for furniture arrangements considering income size and need of family.
5. Draw house plans with standard specifications and furniture layout.

Beema

Syllabus for Undergraduate Bachelor's Degree with Hons/Hons with Research

Home Science

Minor from Vocational Studies/Discipline-2D

Semester-VIII

HSC-MN-2D:Dyeing Printing & Finishing of Textiles

Credit -04 (Theory+Practical/Demonstration/Viva Voce/Skill Test)

Theory + Practical/ Demonstration/Skill Test/Viva Voce Marks :- 100	Pass Marks : 40
75 Theory + 25 Practical/Demonstration/Viva Voce/Skill Test	
(No Internal Examination)	

Instructions to Question Setter for End Semester Exam (ESE) Theory : 75 Marks

There will be two group of questions. Group A is compulsory which will contain three questions. Question no, 1 will be very short answer type (MCQs, True/False, Fill in the blanks etc.) consisting of five questions of 1 mark each. Question nos. 2 and 3 will be short answer type of 5 marks each. Group B will contain Descriptive type six questions of fifteen marks each, out of which any four are to answer.

MN-2D : Theory

Lectures : 45

Objectives:

1. To introduce the basics of dyeing, printing and finishing.
2. To inculcate the knowledge of accessories and chemicals used for dyeing and printing.
3. To acquaint students with the importance of finishing of textiles.
4. To develop the skills in doing dyeing and printing of textiles.

Course content :

Unit-I. Introduction of Dyeing and Printing

History of dyeing and printing.

Different terminologies relating to colour: Dyes, pigment, light, hue, value, density, colour wheel and schemes.

Unit-II. Difference between dyes and pigments, preparation of fabrics before dyeing and printing – designing, scouring, bleaching, mercerization, carbonization.

Heat setting: Processing method.

Unit-III. Basics of Dyeing.

Classification of dyeing.

Auxiliaries and machineries used for dyeing, factors affecting dyeing

Dyeing of cotton, wool and silk.

Dyeing of viscose and polyester.

Natural dyeing methods and limitation after treatments.

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Unit-IV Basics of Printing.

Preparation of print paste and printing table.

Pigments and dyes used for printing.

Types of printing : Direct style, resist style, discharge style, novel techniques of printing, fixation and after treatment process.

Dyes for digital textile printing.

Unit-V Finishes

Classification of finishes.

Physical, Chemical and Functional objectives of textile finishing.

Factors affecting the finishing of textile: fibre, weave, physical properties, and use, susceptibility to chemical modification.

Finishes for achieving different texture.

Finishes for enhancing specific characteristics.

Recommended Books:

- | | |
|---|--------------------|
| 1. Vastr Vigyan ke Sidhant | : Dr. Rani Khanuja |
| 2. Vastr Vigyan | : Barma & Pandey |
| 3. Textile Technology | : N.N. Mahapatra |
| 4. Introduction of Textile Science | : S.J. Kadolph |
| 5. Fundamentals of Textiles
& their care | : S. Dantyagi |

MN-2D: Practical/Demonstration/Skill Test/Viva Voce

Credit: 01

Lectures-30 (15x2)

Practical/Demonstration/Skill Test/Viva Voce: 25 Marks

(No Internal Exam)

Instruction to Question Setter for End Semester Examination (ESE):

There will be one Practical Examination of 3Hrs duration. Evaluation of Practical Examination will be as per the following guidelines:

Experiment = 15 marks

Practical record notebook = 05 marks

Viva-voce = 05 marks

PRACTICALS

1. Preparation of fabric for dyeing and printing : Colouring, designing, bleaching.
2. Dyeing of yarn and fabric with different classes of dyers :
 - (a) Dyeing of cotton yarn and fabric with dyes, vat and reactive dyes.
 - (b) Dyeing of silk, wool and nylon yarn and fabrics with basic and acid dyes.
 - (c) Dyeing of polyester yarn and fabric with disperse dyes.
3. Making design for blocks & stencil. Preparation of blocks and stencil.
4. Printing of fabrics using :
 - (a) Direct style : block, stencil
 - (b) Resist Style : Tie & Dye, Batik
5. Application of starch by varying concentration and material: Natural starch, synthetic starch.
6. Printing of garments by different styles.

Geema