

SAURASHTRA UNIVERSITY

Rajkot



Accredited Grade “A”

By NAAC

FACULTY OF HOME SCIENCE

Syllabus for

B.SC. HOME SCIENCE (Three Year) Programme

General Home Science/Home Management/

Foods & Nutrition/ Clothing & Textile

Choice Based Credit System (CBCS)

Effective from June- 2016-2017

Saurashtra University
University Campus Rajkot – 360 005,
Gujarat, India

Website: [www. Saurashtrauniversity.edu](http://www.Saurashtrauniversity.edu)

Preamble

Home Science has contributed a great deal towards national development by training students to take up leadership roles in extension and community outreach programs. The students are encouraged to develop a scientific temper. Familiarizing them with the use of newer technologies, methods in family and community linkages, and sustainable use of resources for human development are the hall mark of education in Home Science. As a discipline Home Science integrates the ingredients of sciences, social sciences and technology to facilitate the study of and enhance the quality of human life. It approaches in its curriculum that engages the student through teaching, research and extension. The education process in Home Science underscores the importance of the individual's dynamic relationship with his/her family, community and society as a whole, as well as with the resources in the environment. Higher education learning in Home Science subjects provides students the opportunity to sharpen their capacities with a sense of social responsibility.

In contemporary times, Home Scientists promote capacity building of individuals and communities for social and economic empowerment. They train community women and youth from various strata of society for entrepreneurs themselves. They do not remain job seekers but have also become job creators. They gain and provide employment in research organizations, food and textile industries, dietetic practice, education and child development domains, accreditation of green buildings, strategic planning and communication technologies. Keeping in view the growing aspirations of today's youth and capacity of Home Science discipline to deliver, the 3-year choice based credit system has been drawn up.

Years of national and international experience in the field has contributed to the wisdom that all the five windows of opportunity that Home Science offers be opened, i.e. Food and Nutrition, Human Development, communication and Extension and Fabric and Apparel Sciences. In this course, the students will learn the fundamental principles and foundations of all five areas. They are expected to internalize the principle of a Home Scientist, that is, to give back to the community from which they draw, for sustainable development. This is a major contribution of Home Science in both developed and developing societies.

The University Grants Commission's model 2001 curriculum of Home Science reflects a similar philosophy.

The objectives of the present B.Sc. program Home Science course are:

- To understand and appreciate the role of interdisciplinary sciences in the development and well-being of individuals, families and communities.
- To learn about the sciences and technologies that enhance quality the life of people
- To acquire professional and entrepreneurial skills for economic empowerment of the student in particular, and community in general.
- To develop professional skills in food, nutrition, textiles, housing, product making communication technologies and human development.
- To take science from the laboratory to the people.

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'A'

EXAMINATION CODING SYSTEM

F.Y.B.H.SC. (HOME SCIENCE)

SEMESTER – 1

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Environmental Science	AECC – 01	UG	01	01	01	160801010101
16	08	Communication and Extension	CC – 01	UG	01	01	02	160801010102
16	08	Resource Management	CC – 02	UG	01	01	03	160802010103
16	08	Fashion Studies	CC – 03	UG	01	01	04	160803010104
16	08	Child rights and Gender Empowerment	DSE – 01	UG	01	01	05	160801010105
16	08	Human Physiology	SEC – 01	UG	01	01	06	160801010106
16	08	Bakery Science	SEC – 02	UG	01	01	07	160802010107

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

F.Y.B.H.SC. (HOME SCIENCE)

SEMESTER – 2

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Environmental Science	AECC – 02	UG	01	02	01	160802010201
16	08	Fundamentals of Nutrition	CC – 04	UG	01	02	02	160804010202
16	08	Life Span Development – 1	CC – 05	UG	01	02	03	160805010203
16	08	Clothing Construction	CC – 06	UG	01	02	04	160806010204
16	08	Extension Management	DSE – 02	UG	01	02	05	160802010205
16	08	Basics of Computer & its applications	SEC – 03	UG	01	02	06	160803010206
16	08	Travel and Tourism	SEC – 04	UG	01	02	07	160804010207

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

S.Y.B.H.SC. (HOME SCIENCE)

SEMESTER – 3

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Physical Science	CC – 07	UG	01	03	01	160807010301
16	08	Life Span Development - 2	CC – 08	UG	01	03	02	160808010302
16	08	Nutrition for the Family	CC – 09	UG	01	03	02	160809010303
16	08	Fundamentals of textile	DSE -03	UG	01	03	04	160803010304
16	08	Home Based Catering	SEC -05	UG	01	03	05	160805010305
16	08	Information, Education and Communication Material for Development	SEC -06	UG	01	03	06	160806010306

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

S.Y.B.H.SC. (HOME SCIENCE)

SEMESTER – 4

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Food Safety	CC – 10	UG	01	04	01	160810010401
16	08	Personal Finance and Consumer Studies	CC – 11	UG	01	04	02	160811010402
16	08	Communication Systems and Social Change	CC – 12	UG	01	04	03	160812010403
16	08	Public Nutrition	DSE – 04	UG	01	04	04	160804010404
16	08	Early Childhood Care and Education	SEC – 07	UG	01	04	05	160807010405
16	08	Textile Design	SEC – 08	UG	01	04	06	160808010406

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (GENERAL HOME SCIENCE)

SEMESTER – 5

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Research & Documentation	DSE – 05	UG	01	05	01	160805010501
16	08	Children with Disabilities	DSE – 06	UG	01	05	02	160806010502
16	08	Communication for Development	DSE – 07	UG	01	05	03	160807010503
16	08	Processes in Apparel Design	DSE – 08	UG	01	05	04	160808010504
16	08	Entrepreneurship Development in Women	SEC – 09	UG	01	05	05	160809010505
16	08	Nutrition and Fitness	SEC – 10	UG	01	05	06	160810010506

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (GENERAL HOME SCIENCE)

SEMESTER – 6

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Indian Traditional Textile	DSE -09	UG	01	06	01	160809010601
16	08	Basics of Design Application	DSE -10	UG	01	06	02	160810010602
16	08	Adolescents Relations and Well Being	DSE -11	UG	01	06	03	160811010603
16	08	NGO Management	DSE -12	UG	01	06	04	160812010604
16	08	Nutrition Health Communication	SEC -11	UG	01	06	05	160811010605
16	08	Microbiology	SEC -12	UG	01	06	06	160812010606

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (MAJOR- FOODS & NUTRITION)

SEMESTER – 5

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Biochemistry – 1	DSE – 05	UG	01	05	01	160805010501
16	08	Dietetics – 1	DSE – 06	UG	01	05	02	160806010502
16	08	Food Science – 1	DSE – 07	UG	01	05	03	160807010503
16	08	Community health and Nutrition	DSE – 08	UG	01	05	04	160808010504
16	08	Food Processing and Safety	SEC – 09	UG	01	05	05	160809010505
16	08	Physiology	SEC – 10	UG	01	05	06	160810010506

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (MAJOR – FOODS & NUTRITION)

SEMESTER – 6

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Biochemistry – 2	DSE -09	UG	01	06	01	160809010601
16	08	Dietetics – 2	DSE -10	UG	01	06	02	160810010602
16	08	Food Science – 2	DSE -11	UG	01	06	03	160811010603
16	08	Food Preservation	DSE -12	UG	01	06	04	160812010604
16	08	Food Analysis	SEC -11	UG	01	06	05	160811010605
16	08	Microbiology	SEC -12	UG	01	06	06	160812010606

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (MAJOR – CLOTHING & TEXTILE)

SEMESTER – 5

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Textile Process	DSE – 05	UG	01	05	01	160805010501
16	08	Apparel Making	DSE – 06	UG	01	05	02	160806010502
16	08	Indian Embroidery	DSE – 07	UG	01	05	03	160807010503
16	08	Dress Designing	DSE – 08	UG	01	05	04	160808010504
16	08	Laundry Science	SEC – 09	UG	01	05	05	160809010505
16	08	Sociological & Psychological Aspect of Clothing	SEC – 10	UG	01	05	06	160810010506

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (MAJOR – CLOTHING & TEXTILE)

SEMESTER – 6

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Weaving & Knitting	DSE – 09	UG	01	06	01	160809010601
16	08	Research & Documentation	DSE – 10	UG	01	06	02	160810010602
16	08	Textile Design & Advance Printing	DSE – 11	UG	01	06	03	160811010603
16	08	Advance Design & Fashion Technology	DSE – 12	UG	01	06	04	160812010604
16	08	Historical Costume	SEC – 11	UG	01	06	05	160811010605
16	08	Textile Testing	SEC – 12	UG	01	06	06	160812010606

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (MAJOR – HOME MANAGEMENT)

SEMESTER – 5

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Food Service Management	DSE – 05	UG	01	05	01	160805010501
16	08	House Keeping	DSE – 06	UG	01	05	02	160806010502
16	08	Work Place Environment	DSE – 07	UG	01	05	03	160807010503
16	08	Indoor Outdoor Gardening	DSE – 08	UG	01	05	04	160808010504
16	08	Theory of Management	SEC – 09	UG	01	05	05	160809010505
16	08	Front Office Management	SEC – 10	UG	01	05	06	160810010506

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ANNEXURE 'A'

EXAMINATION CODING SYSTEM

T.Y.B.H.SC. (MAJOR – HOME MANAGEMENT)

SEMESTER – 6

Course Rev	Faculty Code	Subject	Code	Level	Code	Semester	Paper no.	Total
16	08	Food Packaging & Marketing	DSE – 09	UG	01	06	01	160809010601
16	08	Research & Documentation	DSE – 10	UG	01	06	02	160810010602
16	08	Kitchen modular Design	DSE – 11	UG	01	06	03	160811010603
16	08	Canteen Management	DSE – 12	UG	01	06	04	160812010604
16	08	Entrepreneurship Development in Women	SEC – 11	UG	01	06	05	160811010605
16	08	Event Management	SEC – 12	UG	01	06	06	160812010606

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Annexure 'B'

Structure to be prepared in the Beginning of the syllabus for All semester/year

F.Y.B.H.Sc. (Home Science)

Semester – 1

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	AECC – 01	Environmental Science	-----	15	35	50	2 + 0	2
2	CC – 01	Communication and Extension	20	30	50	100	4 + 2	6
3	CC – 02	Resource Management	20	30	50	100	4 + 2	6
4	CC – 03	Fashion Studies	20	30	50	100	4 + 2	6
5	DSE – 01	Child rights and Gender Empowerment	20	30	50	100	4 + 2	6
6	SEC – 01	Human Physiology	-----	15	35	50	2 + 0	2
7	SEC – 02	Bakery Science	35	15	---	50	0 + 2	2
		Total	115	165	270	550	20 + 10	30

F.Y.B.H.Sc. (Home Science)

Semester – 2

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	AECC – 02	Environmental Science	-----	15	35	50	2 + 0	2
2	CC – 04	Fundamentals of Nutrition	20	30	50	100	4 + 2	6
3	CC – 05	Life Span Development – 1	20	30	50	100	4 + 2	6
4	CC – 06	Clothing Construction	20	30	50	100	4 + 2	6
5	DSE – 02	Extension Management	20	30	50	100	4 + 2	6
6	SEC – 03	Basics of Computer & its applications	35	15	---	50	0 + 2	2
7	SEC – 04	Travel and Tourism	---	15	35	50	2 + 0	2
		Total	115	150	270	550	20 + 10	30

CC= Core Course

DSE=Discipline Specific Elective

SEC=Skill Enhancement Course

PM= Practical Marks

IM = Internal Marks

EM = External Marks

TM = total Marks

T = theory

P = practical

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Annexure 'B'

Structure to be prepared in the Beginning of the syllabus for All semester/year

S.Y.B.H.Sc. (Home Science)

Semester – 3

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	CC – 07	Physical Science	20	30	50	100	4 + 2	6
2	CC – 08	Life Span Development -2	20	30	50	100	4 + 2	6
3	CC – 09	Nutrition for the Family	20	30	50	100	4 + 2	6
4	DSE – 03	Fundamentals of textile	20	30	50	100	4 + 2	6
5	SEC - 05	Home Based Catering	---	15	35	50	2 + 0	2
6	SEC – 06	Information, Education and Communication Material for Development	35	15	---	50	0 + 2	2
		Total	115	150	235	500	18 + 10	28

S.Y.B.H.Sc. (Home Science)

Semester – 4

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	CC – 10	Food Safety	20	30	50	100	4 + 2	6
2	CC – 11	Personal Finance and Consumer Studies	20	30	50	100	4 + 2	6
3	CC – 12	Communication Systems and Social Change	20	30	50	100	4 + 2	6
4	DSE – 04	Public Nutrition	20	30	50	100	4 + 2	6
5	SEC – 07	Early Childhood Care and Education	35	15	---	50	0 + 2	2
6	SEC – 08	Textile Design	35	15	---	50	0 + 2	2
		Total	150	150	200	500	16 + 12	28

CC= Core Course

DSE=Discipline Specific Elective

SEC=Skill Enhancement Course

PM= Practical Marks

IM = Internal Marks

EM = External Marks

TM = total Marks

T = theory

P = practical

Saurashtra University, Rajkot

Annexure 'B'

Structure to be prepared in the Beginning of the syllabus for All semester/year

T.Y.B.H.Sc. (General Home Science)

Semester – 5

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 05	Research and Documentation	20	30	50	100	4 + 2	6
2	DSE – 06	Children with Disabilities	20	30	50	100	4 + 2	6
3	DSE – 07	Communication for Development	20	30	50	100	4 + 2	6
4	DSE – 08	Processes in Apparel Design	20	30	50	100	4 + 2	6
5	SEC – 09	Entrepreneurship Development in Women	---	15	35	50	2 + 0	2
6	SEC – 10	Nutrition and Fitness	----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

T.Y.B.H.Sc. (General Home Science)

Semester – 6

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 09	Indian Traditional Textile	20	30	50	100	4 + 2	6
2	DSE – 10	Basics of Design Application	20	30	50	100	4 + 2	6
3	DSE – 11	Adolescents Relations and Well Being	20	30	50	100	4 + 2	6
4	DSE – 12	NGO Management	20	30	50	100	4 + 2	6
5	SEC – 11	Nutrition Health Communication	----	15	35	50	2 + 0	2
6	SEC – 12	Microbiology	----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

CC= Core Course

DSE=Discipline Specific Elective

SEC=Skill Enhancement Course

PM= Practical Marks

IM = Internal Marks

EM = External Marks

TM = total Marks

T = theory

P = practical

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Annexure 'B'

Structure to be prepared in the Beginning of the syllabus for All semester/year

T.Y.B.H.Sc. (Major – Foods & Nutrition)

Semester – 5

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 05	Biochemistry – 1	20	30	50	100	4 + 2	6
2	DSE – 06	Dietetics – 1	20	30	50	100	4 + 2	6
3	DSE – 07	Food Science – 1	20	30	50	100	4 + 2	6
4	DSE – 08	Community health and Nutrition	20	30	50	100	4 + 2	6
5	SEC – 09	Food Processing and Safety	---	15	35	50	2 + 0	2
6	SEC – 10	Physiology	-----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

T.Y.B.H.Sc. (Major – Foods & Nutrition)

Semester – 6

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 09	Biochemistry – 2	20	30	50	100	4 + 2	6
2	DSE – 10	Dietetics – 2	20	30	50	100	4 + 2	6
3	DSE – 11	Food Science – 2	20	30	50	100	4 + 2	6
4	DSE – 12	Food Preservation	20	30	50	100	4 + 2	6
5	SEC – 11	Food Analysis	-----	15	35	50	2 + 0	2
6	SEC – 12	Microbiology	-----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

CC= Core Course

DSE=Discipline Specific Elective

SEC=Skill Enhancement Course

PM= Practical Marks

IM = Internal Marks

EM = External Marks

TM = total Marks

T = theory

P = practical

Saurashtra University, Rajkot

Annexure 'B'

Structure to be prepared in the Beginning of the syllabus for All semester/year

T.Y.B.H.Sc. (Major – Clothing & Textile)

Semester – 5

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 05	Textile Process	20	30	50	100	4 + 2	6
2	DSE – 06	Apparel Making	20	30	50	100	4 + 2	6
3	DSE – 07	Indian Embroidery	20	30	50	100	4 + 2	6
4	DSE – 08	Dress Designing	20	30	50	100	4 + 2	6
5	SEC – 09	Laundry Science	---	15	35	50	2 + 0	2
6	SEC – 10	Sociological & Psychological Aspect of Clothing	----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

T.Y.B.H.Sc. (Major – Clothing & Textile)

Semester – 6

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 09	Weaving & Knitting	20	30	50	100	4 + 2	6
2	DSE – 10	Research & Documentation	20	30	50	100	4 + 2	6
3	DSE – 11	Textile Design & Advance Printing	20	30	50	100	4 + 2	6
4	DSE – 12	Advance Design & Fashion Technology	20	30	50	100	4 + 2	6
5	SEC – 11	Historical Costume	----	15	35	50	2 + 0	2
6	SEC – 12	Textile Testing	----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

CC= Core Course

DSE=Discipline Specific Elective

SEC=Skill Enhancement Course

PM= Practical Marks

IM = Internal Marks

EM = External Marks

TM = total Marks

T = theory

P = practical

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Annexure 'B'

Structure to be prepared in the Beginning of the syllabus for All semester/year

T.Y.B.H.Sc. (Major – Home Management)

Semester – 5

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 05	Food Service Management	20	30	50	100	4 + 2	6
2	DSE – 06	House Keeping	20	30	50	100	4 + 2	6
3	DSE – 07	Work Place Environment	20	30	50	100	4 + 2	6
4	DSE – 08	Indoor Outdoor Gardening	20	30	50	100	4 + 2	6
5	SEC – 09	Front Office management	---	15	35	50	2 + 0	2
6	SEC – 10	Theory of Management	-----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

T.Y.B.H.Sc. (Major - Home Management)

Semester – 6

No.	Course Code	Course Title	PM	IM	EM	TM	Credits T + P	Total Credits
1	DSE – 09	Food Packaging & Marketing	20	30	50	100	4 + 2	6
2	DSE – 10	Research and Documentation	20	30	50	100	4 + 2	6
3	DSE – 11	Kitchen Modular Design	20	30	50	100	4 + 2	6
4	DSE – 12	Canteen Management	20	30	50	100	4 + 2	6
5	SEC – 11	Entrepreneurship Development in Women	-----	15	35	50	2 + 0	2
6	SEC – 12	Event Management	-----	15	35	50	2 + 0	2
		Total	80	150	270	500	20 + 8	28

CC= Core Course

DSE=Discipline Specific Elective

SEC=Skill Enhancement Course

PM= Practical Marks

IM = Internal Marks

EM = External Marks

TM = total Marks

T = theory

P = practical

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Annexure 'c'

Faculty of Home Science

semester – 1

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	1	AEC C – 01	160801010101	Environmental Science	2	15	35	----	1 ½ hours	----
B.H.Sc.	1	CC – 01	160801010102	Communication and Extension	6	30	50	20	2 Hours	2Hours
B.H.Sc.	1	CC – 02	160802010103	Resource Management	6	30	50	20	2 Hours	2Hours
B.H.Sc.	1	CC – 03	160803010104	Fashion Studies	6	30	50	20	2 Hours	2Hours
B.H.Sc.	1	DSE – 01	160801010105	Child rights and Gender Empowerment	6	30	50	20	2 Hours	2Hours
B.H.Sc.	1	SEC – 01	160801010106	Human Physiology	2	15	35	----	1 ½ hours	----
B.H.Sc.	1	SEC – 02	160802010107	Bakery Science	2	15	---	35	---	3 Hours

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Annexure 'c'

Faculty of Home Science

semester – 2

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	2	AECC – 02	160802010201	Environmental Science	2	15	35	-----	1 ½ hours	----
B.H.Sc.	2	CC – 04	160804010202	Fundamentals of Nutrition	6	30	50	20	2 Hours	2Hours
B.H.Sc.	2	CC – 05	160805010203	Life Span Development – 1	6	30	50	20	2 Hours	2Hours
B.H.Sc.	2	CC – 06	160806010204	Clothing Construction	6	30	50	20	2 Hours	2Hours
B.H.Sc.	2	DSE – 02	160802010205	Extension Management	6	30	50	20	2 Hours	2Hours
B.H.Sc.	2	SEC – 03	160803010206	Basics of Computer & its applications	2	15	---	35	---	3 Hours
B.H.Sc.	2	SEC – 04	160804010207	Travel and Tourism	2	15	35	---	1 ½ hours	----

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Annexure 'c'

Faculty of Home Science

semester – 3

Name of Course	Se me ster	CC/ DSE/ SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	3	CC – 07	160807030101	Physical Science	6	30	50	20	2 Hours	2Hours
B.H.Sc.	3	CC – 08	160807030101	Life Span Development - 2	6	30	50	20	2 Hours	2Hours
B.H.Sc.	3	CC – 09	160807030101	Nutrition for the Family	6	30	50	20	2 Hours	2Hours
B.H.Sc.	3	DSE - 03	160807030101	Fundamentals of Textile	6	30	50	20	2 Hours	2Hours
B.H.Sc.	3	SEC - 05	160807030101	Home Based Catering	2	15	35	---	1 ½ hours	----
B.H.Sc.	3	SEC - 06	160807030101	Information, Education and Communication Material for Development	2	15	---	35	---	3 Hours

Saurashtra University, Rajkot

Annexure 'c'

Faculty of Home Science

semester – 4

Name of Course	Se me ster	CC/ DSE/ SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	4	CC – 10	160807040101	Food Safety	6	30	50	20	2 Hours	2Hours
B.H.Sc.	4	CC – 11	160807040101	Personal Finance and Consumer Studies	6	30	50	20	2 Hours	2Hours
B.H.Sc.	4	CC – 12	160807040101	Communication Systems and Social Change	6	30	50	20	2 Hours	2Hours
B.H.Sc.	4	DSE – 04	160807040101	Public Nutrition	6	30	50	20	2 Hours	2Hours
B.H.Sc.	4	SEC – 07	160807040101	Early Childhood Care and Education	2	15	35	---	1 ½ hours	----
B.H.Sc.	4	SEC – 08	160807040101	Textile Design	2	15	---	35	---	3 Hours

Saurashtra University, Rajkot

Annexure 'c'

Faculty of Home Science

semester – 5 (GENERAL HOME SCIENCE)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	5	DSE-05	160805010501	Research and Documentation	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE - 06	160806010502	Children with Disabilities	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE - 07	160807010503	Communication for Development	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE - 08	160808010504	Processes in Apparel Design	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	SEC - 09	160809010505	Entrepreneurship Development in Women	2	15	35	---	1 ½ hours	----
B.H.Sc.	5	SEC - 10	160810010506	Nutrition and Fitness	2	15	35	---	1 ½ hours	----

Saurashtra University, Rajkot

Annexure 'c'

Faculty of Home Science

semester – 6 (GENERAL HOME SCIENCE)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	6	DSE - 09	160809010601	Indian Traditional Textile	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 10	160810010602	Basics of Design Application	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 11	160811010603	Adolescents Relations and Well Being	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 12	160812010604	NGO Management	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	SEC- 11	160811010605	Nutrition Health Communication	2	15	35	---	1 ½ hours	----
B.H.Sc.	6	SEC- 12	160812010606	Microbiology	2	15	35	---	1 ½ hours	----

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'C'

FACULTY OF HOME SCIENCE SEMESTER – 5 (MAJOR – FOODS & NUTRITION)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	5	DSE-05	160805010501	Biochemistry – 1	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE - 06	160806010502	Dietetics – 1	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE - 07	160807010503	Food Science – 1	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE - 08	160808010504	Community health and Nutrition	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	SEC - 09	160809010505	Food Processing and Safety	2	15	35	---	1 ½ hours	----
B.H.Sc.	5	SEC - 10	160810010506	Physiology	2	15	---	35	---	3 Hours

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'C'

FACULTY OF HOME SCIENCE SEMESTER – 6 (MAJOR – FOODS & NUTRITION)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	6	DSE - 09	160809010601	Biochemistry – 2	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 10	160810010602	Dietetics – 2	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 11	160811010603	Food Science – 2	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 12	160812010604	Food Preservation	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	SEC- 11	160811010605	Food Analysis	2	15	---	35	---	3 Hours
B.H.Sc.	6	SEC- 12	160812010606	Microbiology	2	15	35	---	1 ½ hours	----

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'C'

FACULTY OF HOME SCIENCE SEMESTER – 5 (MAJOR –CLOTHING & TEXTILE)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	5	DSE-05	160805010501	Textile Process	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE -06	160806010502	Apparel Making	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE -07	160807010503	Indian Embroidery	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE -08	160808010504	Dress Designing	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	SEC -09	160809010505	Laundry Science	2	15	35	---	1 ½ hours	----
B.H.Sc.	5	SEC -10	160810010506	Sociological & Psychological Aspect of Clothing	2	15	35	---	1 ½ hours	----

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'C'

FACULTY OF HOME SCIENCE SEMESTER – 6 (MAJOR –CLOTHING & TEXTILE)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	6	DSE - 09	160809010601	Weaving & Knitting	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 10	160810010602	Research & Documentation	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 11	160811010603	Textile Design & Advance Printing	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 12	160812010604	Advance Design & Fashion Technology	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	SEC- 11	160811010605	Historical Costume	2	15	35	---	1 ½ hours	----
B.H.Sc.	6	SEC- 12	160812010606	Textile Testing	2	15	---	35	---	3 Hours

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'C'

FACULTY OF HOME SCIENCE SEMESTER – 5 (MAJOR –HOME MANAGEMENT)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	5	DSE-05	160805010501	Food Service Management	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE -06	160806010502	House Keeping	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE -07	160807010503	Work Place Environment	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	DSE -08	160808010504	Indoor Outdoor Gardening	6	30	50	20	2 Hours	2Hours
B.H.Sc.	5	SEC -09	160809010505	Theory of management	2	15	35	---	1 ½ hours	----
B.H.Sc.	5	SEC -10	160810010506	Front Office Management	2	15	35	---	1 ½ hours	----

SAURASHTRA UNIVERSITY, RAJKOT

ANNEXURE 'C'

FACULTY OF HOME SCIENCE SEMESTER – 6 (MAJOR –HOME MANAGEMENT)

Name of Course	Semester	CC/DSE/SEC	Course Code	Course Title	Credit	Internal Marks	External Marks	Practical Exam Marks	External Exam Time Duration	Practical Exam Time Duration
B.H.Sc.	6	DSE - 09	160809010601	Food Packaging & Marketing	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 10	160810010602	Research & Documentation	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 11	160811010603	Kitchen modular Design	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	DSE - 12	160812010604	Canteen Management	6	30	50	20	2 Hours	2Hours
B.H.Sc.	6	SEC- 11	160811010605	Entrepreneurs hip Development in Women	2	15	35	---	1 ½ hours	----
B.H.Sc.	6	SEC- 12	160812010606	Event Management	2	15	35	---	1 ½ hours	----

Detail of Course Offering Under Graduate B.H.Sc. (HOME SCIENCE)

Effect from Academic Year 2016-2017

Sr. No.	Course	Paper	Theory + practical	Credit	Hours
1	Ability Enhancement Compulsory Course (AECC)	02	04 + 00	04	04
2	Core Course (CC)	12	48 + 24	72	96
3	Elective Discipline Specific Course (DSE)	12	48 + 24	72	96
4	Skill Enhancement Course (SEC)	12	14 + 10	24	34
	Total	38	114 + 58	172	230

Notes -

Marks and credits distribution –

- 1) Where the Paper have 6 credits the distribution of marks are as below
Theory - 50 Marks
Practical – 20 Marks
Internal – 30 Marks
Total – 100 Marks
- 2) Where the Paper have 2 credits the distribution of marks are as below
Theory /practical -35 Marks
Internal – 15 Marks
Total – 50 Marks
- 3) Theory credits – 1 hour /credit so 4 hours/week
Practical credits – 2 hours/credit so 4 hours/Batch
- 4) Duration of Theory Examination for 50 marks – 2 hours.
Duration of Theory Examination for 35 marks – 1 ½ hours.
- 5) Duration of Practical Examination for 20 marks – 2 hours.
Duration of Practical Examination for 35 marks – 3 hours.

B.H.SC. (HOME SCIENCE) SEMESTER-I**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	AECC - 01	Environmental Science	02 + 00	02	02
2	CC – 01	Communication and Extension	04 + 02	06	08
3	CC – 02	Resource Management	04 + 02	06	08
4	CC – 03	Fashion Studies	04 + 02	06	08
5	DSE – 01	Child Rights and Gender Empowerment	04 + 02	06	08
6	SEC – 01	Human Physiology	02 + 00	02	02
7	SEC – 02	Bakery Science	00 + 02	02	04
		Total	20 + 10	30	40

B.H.SC.(HOME SCIENCE) SEMESTER-II**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	AECC – 02	Environmental Science	02 + 00	02	02
2	CC – 04	Fundamentals of Nutrition	04 + 02	06	08
3	CC – 05	Life Span Development - 1	04 + 02	06	08
4	CC – 06	Clothing Construction	04 + 02	06	08
5	DSE – 02	Extension Management	04 + 02	06	08
6	SEC – 03	Basics of Computer & Its Applications	02 + 00	02	02
7	SEC – 04	Travel and Tourism	00 + 02	02	04
		Total	20 + 10	30	40

B.H.SC. (HOME SCIENCE) SEMESTER-III**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	CC – 07	Physical Science	04 + 02	6	08
2	CC – 08	Life Span Development -2	04 + 02	6	08
3	CC – 09	Nutrition for the Family	04 + 02	6	08
4	DSC – 03	Fundamental of Textile	04 + 02	6	08
5	SEC – 05	Home Based Catering	02 + 00	2	02
6	SEC – 06	Information, Education and Communication Material for Development	00 + 02	2	04
		Total	18 + 10	28	38

B.H.SC. (HOME SCIENCE) SEMESTER-IV**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	CC – 10	Food Safety	04 + 02	6	08
2	CC – 11	Personal Finance and Consumer Studies	04 + 02	6	08
3	CC – 12	Communication Systems and Social Change	04 + 02	6	08
4	DSE – 04	Public Nutrition	04 + 02	6	08
5	SEC – 07	Early Childhood Care and Education	00 + 02	2	04
6	SEC – 08	Textile Design	00 + 02	2	04
		Total	16 + 12	28	40

B.H.SC. (HOME SCIENCE) SEMESTER – V (General Home Science)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	DSE – 05	Research & Documentation	04 + 02	6	08
2	DSE – 06	Children with Disabilities	04 + 02	6	08
3	DSE – 07	Communication for Development	04 + 02	6	08
4	DSE – 08	Processes in Apparel Design	04 + 02	6	08
5	SEC – 09	Entrepreneurship Development in Women	02 + 00	2	02
6	SEC – 10	Nutrition and Fitness	02 + 00	2	02
		Total	20 + 08	28	36

B.H.SC. (HOME SCIENCE) SEMESTER – VI (General Home Science)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	DSE – 09	Indian Traditional Textile	04 + 02	6	08
2	DSE – 10	Basics of Design Application	04 + 02	6	08
3	DSE – 11	Adolescents Relations and Well Being	04 + 02	6	08
4	DSE – 12	NGO Management	04 + 02	6	08
5	SEC – 11	Nutrition Health Communication	02 + 00	2	02
6	SEC – 12	Microbiology	02 + 00	2	02
		Total	20 + 08	28	36

B.H.SC. (HOME SCIENCE) SEMESTER – V (Major- Foods & Nutrition)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory +Practical	Credits	Hours
1	DSE – 05	Biochemistry – 1	04 + 02	6	08
2	DSE – 06	Dietetics – 1	04 + 02	6	08
3	DSE – 07	Food Science – 1	04 + 02	6	08
4	DSE – 08	Community health and Nutrition	04 + 02	6	08
5	SEC – 09	Food Processing and Safety	02 + 00	2	02
6	SEC – 10	Physiology	00 + 02	2	04
		Total	18 + 10	28	38

B.H.SC.(HOME SCIENCE) SEMESTER – VI (Major-Foods & Nutrition)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory +Practical	Credits	Hours
1	DSE – 09	Biochemistry – 2	04 + 02	6	08
2	DSE – 10	Dietetics – 2	04 + 02	6	08
3	SEC – 11	Food Science – 2	04 + 02	6	08
4	SEC – 12	Food Preservation	04 + 02	6	08
5	SEC – 11	Food Analysis	00 + 02	2	04
6	SEC – 12	Microbiology	02 + 00	2	02
		Total	18 + 10	28	38

B.H.SC. (HOME SCIENCE) SEMESTER – V (Major-Clothing & Textile)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	DSE – 05	Textile Process	04 + 02	6	08
2	DSE – 06	Apparel Making	04 + 02	6	08
3	DSE – 07	Indian Embroidery	04 + 02	6	08
4	DSE – 08	Dress Designing	04 + 02	6	08
5	SEC – 09	Laundry Science	02 + 00	2	02
6	SEC – 10	Sociological & Psychological Aspect of Clothing	02 + 00	2	02
		Total	20 + 08	28	36

B.H.SC. (HOME SCIENCE) SEMESTER – VI (Major-clothing & Textile)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	DSE – 09	Weaving & Knitting	04 + 02	6	08
2	DSE – 10	Research & Documentation	04 + 02	6	08
3	SEC – 11	Textile Design & Advance Printing	04 + 02	6	08
4	SEC – 12	Advance Design & Fashion Technology	04 + 02	6	08
5	SEC – 11	Historical Costume	02 + 00	2	02
6	SEC – 12	Textile Testing	00 + 02	2	04
		Total	18 + 10	28	36

B.H.SC. (HOME SCIENCE) SEMESTER – V (Major-Home Management)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory + Practical	Credits	Hours
1	DSE – 05	Food Service Management	04 + 02	6	08
2	DSE – 06	House Keeping	04 + 02	6	08
3	DSE – 07	Work Place Environment	04 + 02	6	08
4	DSE – 08	Indoor Outdoor Gardening	04 + 02	6	08
5	SEC – 09	Theory of Management	02 + 00	2	02
6	SEC – 10	Front Office Management	02 + 00	2	02
		Total	20 + 8	28	36

B.H.SC. (HOME SCIENCE) SEMESTER – VI (Major-Home Management)**Effect from Academic Year 2016-2017**

Sr. No.	Course Opted	Subject	Theory +Practical	Credits	Hours
1	DSE – 09	Food Packaging & Marketing	04 + 02	6	08
2	DSE – 10	Research & Documentation	04 + 02	6	08
3	SEC – 11	Kitchen modular Design	04 + 02	6	08
4	SEC – 12	Canteen Management	04 + 02	6	08
5	SEC – 11	Entrepreneurship Development in Women	02 + 00	2	02
6	SEC – 12	Event Management	02 + 00	2	02
		Total	20 + 08	28	36

F.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –I
ENVIRONMENTAL SCIENCE PAPER NO.1
AECC – 01

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

1. To be aware of the holistic ecological approaches to environment
2. To be aware of the environmental problems, hazards and risks
3. To understand the aspects of environmental pollution
4. To know our environmental resources and its conservation
5. To be aware of public duties for sustainable development of India
6. To be aware of the environmental policies, movements and ethics

THEORY

UNIT – 1 Our Environment

- 1.1 Introduction
- 1.2 Definition of environment
- 1.3 Environmental factors
- 1.4 Structure of atmosphere
- 1.5 Importance of environmental education

UNIT – 2 Our Natural resources

- 2.1 Introduction
- 2.2 Meaning of natural resources
- 2.3 Classification of natural resources
- 2.4 Natural resources and associated problems
 - 2.4.1 Forest resources
 - 2.4.2 Water resources
 - 2.4.3 Land resources
 - 2.4.4 Mineral resources
 - 2.4.5 Food resources
 - 2.4.6 Energy resources

UNIT – 3 The Role of Public in Sustainable Development and Environment

- 3.1 Introduction
- 3.2 Biodiversity and conservation

- 3.3 Control on pollution
- 3.4 Forest protection and plantation
- 3.5 Conservation of water
- 3.6 Conservation of land
- 3.7 Conservation of energy

UNIT – 4The Role of Information Technology and Public in Environmental Protection

- 4.1 Introduction
- 4.2 Environment related changes and information technology
- 4.3 Affected role of information technology for public environmental awareness
- 4.4 The role of public in environment protection
- 4.5 The role of women in environment protection

RECOMMENDED READING

- 1) Chetan Singh Mehta (2000), Environmental Protection and the Lae,
New Delhi: Ashish Publishing house.
- 2) M.H.Tyagi (2005), Global Environmental issues
Jaipur: Raj Publishing House.
- 3) R.B.Singh, D.K.Thakur (2009), Environmental Management
Jaipur: Indus valley publication.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –I
COMMUNICATION AND EXTENSION PAPER NO. 2
CC-01
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

To enable students to

- 1) Acquire skills in development and using media in development communication.
- 2) Explore the use of different media for different situation.
- 3) To know about the effective communication.

THEORY

Unit 1 Communication: Concepts

1.1 Historical background, concept and nature

1.2 Functions of Communication

1.3 Types of Communication – communication transactions; Formal and Informal communication:
Verbal and Non-verbal Communications

1.4 Scope of Communication – Education, training and learning industry, Motivation and Management. Corporate Communication, Management of Organizations, Advertising and Public relations

1.5 Communication and mainstream media-newspaper, radio, television and Cinema, ICTs and web based communication

1.6 Communication for social change

Unit 2 Understanding Human Communication

2.1 Culture and communication- Signs, symbols and codes in communication

2.2 Postulates/Principles of Communication

2.3 Elements of Communication and their characteristics

2.4 Models of Communication

2.5 Barriers to Communication

Unit 3 Communicating Effectively

Concept, nature and relevance to communication process:

3.1 Empathy

3.2 Persuasion

3.3 Perception

3.4 Listening

PRACTICAL

1. Developing skills in planning and conducting small group communication.
2. Review of media on selected issues
3. Design and use of graphic media

RECOMMENDED READINGS

- 1) Barker, L.(1990). “Communication”, New Jersey: Prentice Hall, Inc; 171.
- 2) Devito, J.(1998) Human Communication. New York: Harper & Row.
- 3) Patri and Patri (2002); Essentials of Communication. Greenspan Publications

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –I
RESOURCE MANAGEMENT PAPER NO. 3
CC-02
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- 1) To know about factors involve in management.
- 2) To create an awareness among the students about management in the family as well.
- 3) To recognize the importance of wise use of resources in order to achive goals.

THEORY

Unit 1 Introduction to Resource Management

- 1.1 Concept, university and scope of management
- 1.2 Approaches to management
- 1.3 Ethics in management
- 1.4 Motivation Theory

Unit 2 Resources

- 2.1 Understanding meaning, classification and characteristics of resources, factors affecting utilization of resources.
- 2.2 Maximizing use of resources and resource conservation.
- 2.3 Availability and management of specific resource by an individual/ family
 - Money
 - Time
 - Energy
 - Space
- 2.4 Application of Management Process in:
 - Event Planning & Execution

Unit 3 Functions of Management: An overview

- 3.1 Decision Making
- 3.2 Planning
- 3.3 Supervising

3.4 Controlling

3.5 Organizing

3.6 Evaluation

PRACTICAL

1) Resource conservation and optimization/green technologies (natural resources): Portfolio

2) Identification and development of self as a resource.

- SWOT analysis – who am I and Micro lab
- Building Decision Making abilities through management games

3) Preparation of time plans for self and family

4) Time and Motion Study

5) Event planning management and evaluation-with reference to

- Managerial process
- Resource optimization – time, money, products, space, human capital

RECOMMENDED READINGS

- 1) Koontz. H. and O'Donnel C., 2005. Management – A systems and contingency analysis of managerial functions. New York: McGraw-Hill Book Company
- 2) Kreitner. 2009, Management Theory and Applications. Cengage Learning: India
- 3) Rao V.S. and Narayana P.S. Principles and practices of Management, 2007, Konark Publishers Pvt. Ltd.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –I
FASHION STUDIES PAPER NO. 4
CC-03
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVE

1. This course helps in understanding concept of fashion and the factors that affect fashion.
2. Its enables the students to familiarize with fashion terminology.
3. Understanding of the fashion trends is must for garment designers to make their designs acceptable in market.
4. Thus this is a very important course for students.

THERORY

Unit : 1. Fashion

- 1.1 Define the fashion
- 1.2 History of Fashion
- 1.3 Fashion Terminology
- 1.4 Difference between style, fashion and trend.

Unit : 2 Components of Fashion

- 2.1 Silhouette
- 2.2 Details
- 2.3 Colour
- 2.4 Fabric
- 2.5 Texture
- 2.6 Seams
- 2.7 Trims

Unit :3 Fashion Cycle

- 3.1 Fashion cycle
- 3.2 Fashion Forecasting-Seasons, sources, steps in forecasting\

Unit : 4 Adoption of fashion

- 4.1 Consumer groups- fashion leaders, followers
- 4.2 Adoption process- Trickle-down theory, bottom up theory & trickle across theory

Unit: 5 Factors Affecting the Fashion

- 5.1 The factor of age and gender
- 5.2 The factor of geography
- 5.3 The factor of culture
- 5.4 The factor of economy and class
- 5.5 The factor of technology
- 5.6 The factor of Media & Communication
- 5.7 The factor of Transportation

Unit: 6 Changes in Fashion Trend

- 6.1 Fashion Change
- 6.2 Fashion Trend in 1940/1950 – Period Of Independent
- 6.3 Fashion Trend in 1960- Indo-Western Culture
- 6.4 Fashion Trend in 1970- Mix Match Knit Wear
- 6.5 Fashion Trend in 1980- Economical Boom
- 6.6 Fashion Trend in 1990 – Millennium Fashion
- 6.7 Fashion Trend in 2000 – Mash Up

Unit: 7 Selection of Fabric

- 7.1 Selection of clothes for self
- 7.2 Selection and Evaluation of ready-made garments

PRACTICAL

1. To collections of famous designers photographs Garment from internet which is related to the field.
2. To make Fashion Accessories – (Any Two)
 - a. Jewellery
 - b. Hand Bag
 - c. Purses
 - d. Broach
 - e. Belt
3. Video clippings from latest fashion shows should be shown and discussed to make concepts of fashion clear to students. / Visit fashion week/fashion shows being arranged in the town
4. Project work – Fashion Accessories / Fashion Style / Fashion Collection

RECOMMENDED READINGS

1. Fashion Design Essentials:100 Principles of Fashion Design - Rockport | Jay Calderin
2. The culture of Fashion - Christopher Breward
3. Fashion and Modernity 0 Christopher Breward
4. Fashion logy: An Introduction to Fashion Studies - Yuniya Kawamura
5. Fashion and Its Social Agendas: Class, Gender, and Identity in Clothing - Diana Crane
6. Fashion Cultures: Theories, Explorations and Analysis - Stella Bruzzi
7. Ready to Wear Apparel Analysis. Prentice Hall, Brown, Patty, Rice J., 1998.
8. Individuality in Clothing & Personal, Marshall S G, Jackson H O, Stanley MS, Kefgen M &Specht T, 2009.
9. Appearance, 6th Edition, Pearson Education, USA.
10. The Complete Book of Fashion Design, Harper and Row Publications, Tate S.L., Edwards M.S., 1982, New York
11. Dr. veena s. samani(2012) :apparel making part- 1Saurashtra university –
12. Rajkot

CHILD RIGHTS AND GENDER EMPOWERMENT PAPER NO. 5**DSE – 01****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) To know about the child rights.
- 2) To aware Laws and policies for children in difficult circumstances.
- 3) To know Laws policies and programs for girls and women in India.

THEORY**Unit 1 Understanding Child Rights**

- 1.1 Meaning of Child Rights and Convention on Child Rights
- 1.2 Knowing disadvantage and exclusion in relation to children
- 1.3 Demographic profile of the child in India
- 1.4 The role of state, family and children in promotion and protection of child rights

Unit 2 Children in Difficult circumstances

- 2.1 Street children, working children and homeless children
- 2.2 Child Abuse
- 2.3 Child Trafficking
- 2.4 Children in conflict with law
- 2.5 Laws and policies

Unit 3 Conceptualizing Gender

- 3.1 Defining terms- sex, gender, masculinity, femininity
- 3.2 Socialisation for gender- gender roles, gender stereotypes
- 3.3 Patriarchy and social institutions
- 3.4 Perspectives on feminism

Unit 4 Gender Empowerment

- 4.1 Demographic profile
- 4.2 Issues and concerns related to girls and women in India
- 4.3 Media and gender
- 4.4 Laws, policies and programmes for girls and women in India

PRACTICAL

1. Understanding child rights and gender in diverse social groups through visits
2. Interactions with children in difficult circumstances
3. Understanding gender realities in different social groups
4. Exploring the concept of child rights and gender through audio-visual sources and workshops
5. Programme planning for child rights and gender

RECOMMENDED READINGS:

- 1) Agarwal, A. & Rao, B.V. (2007). Education of Disabled Children. New Delhi: Eastern Book Corporation.
- 2) Agnes, F. (1999). Law and Gender Inequality: The politics of Women's Rights in India. Oxford University Press.
- 3) Bajpai, A. (2006). Child Rights in India: Law, Policy and Practice. Oxford University Press.
- 4) Kishwar, M. (1999). Off the Beaten Track: Rethinking Gender Justice for Indian Women. New Delhi: Oxford University Press.
- 5) Satyarthi, K. and Zutshi, B. (Ed) (2006). Globalization, Development and Child Rights. New Delhi: Shipra Publication.
- 6) Saikia, N. (2008). Indian women: A socio-legal perspective. New Delhi: Serials Publication.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –I
HUMAN PHYSIOLOGY PAPER NO. 6
SEC – 01
(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

This course will enable the students to-

- 1) Understand cell & its structure
- 2) Understand the anatomy of Human body
- 3) Understand the structure of different system of Human body.

THEORY

Unit 1

1.1 Introduction to Human body: Organs, tissue and cell, cell structure, cellular organelles and their functions.

1.2 Blood-Composition and functions.

1.3 Lymphatic system: Lymphatic system structure and function

Unit 2 Cardiovascular system:

2.1 Structure of heart, circulations

2.2 Blood pressure (Definition and factors affecting)

Unit 3 Respiratory System

3.1 Respiratory System, Structure and Functions

3.2 Structure of Lungs and its Function

Unit 4 Digestive system:

4.1 Overview of the Gastrointestinal Tract, organization and functions.

4.2 Structure and functions of:

4.3 Stomach.

4.4 Liver.

4.5 Gallbladder.

4.6 Pancreas

Unit 5 Excretory System:

5.1 Structure and functions of kidney and enthrones.

Unit 6 Endocrine System:

6.1 Overview of endocrine system

6.2 Structure of main endocrine glands and their functions.

6.3 Pituitary, Thyroid, and Pancreatic hormones.

Unit 7 Reproductive System:

7.1 Structure and Functions of Uterus and Ovaries.

7.2 Physiology of Menstruation and Menopause

RECOMMENDED READINGS

- 1) Ganong WF (2014). Review of Medical Physiology, 24th ed. McGraw Hill.
- 2) Ross and Wilson (2013). Anatomy and Physiology in health and illness. 11th ed. Medical Division of Longman Group Ltd.
- 3) Guyton. A.C. and Hall, J.E.(2000)Textbook of Medical Physiology. 10th ed. India: Harcourt Asia
- 4) Das. A. (2004) Medical Physiology-Vil. I and II 3rd Books and Allied (P) Ltd.
- 5) Tortora. G.J. and Grabowski, S.R. (2000)Principles of Anatomy and Physiology. 9th ed. John Wiley and Sons. Inc.
- 6) Chaudhari S.K.(2000) Concise Medical Physiology. 3rd Edition, Central.
- 7) Mahapatra. A.B.S.(2003): Essentials of Medical Physiology. 3rd Edition, Current Books International.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –I
BAKERY SCIENCE PAPER NO. 7
SEC – 02
(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)

OBJECTIVES -

- (1) Understand basic concepts of baking.
- (2) To provide avenues for self employment.
- (3) To provide trained professionals in commercial units.

PRACTICAL:-

(1) Basic concepts of Bakery

- (a) Ingredients and processes used for preparation of
Cake, pastry, pizza base, biscuits, brownies, nankhatai & cookies.
- (b) Product characteristics, common bakery faults and corrective measures.
- (c) Bakery equipments – Types, Selection, Operations and maintenance.

(2) Practical Training in Baking of

- (a) Cake – Plain Cake, Sponge Cake
- (b) Pastry
- (c) Pizza base
- (d) Biscuits – Sweets & Namkin
- (e) Cookies
- (f) Brownie
- (g) Nankhatai

(3) Visit to local bakery units.

RECOMMENDED READINGS

- 1) Dubey,S.C.(2007).Basic Baking 5th Ed.Chanakya Mudrak pvt.ltd. Raina et.al.(2010).Basic food preparation-A Complete Manual .4rd Ed.Orient Black Swan Ltd.
- 2) Khanna K,Gupta s,Seth R,Mahna R,Rekhi T (2004).The Art and Science of.
- 3) Cooking :A Practical Manual , Revised Edition. Elite Publishing House Pvt.Ltd.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II
ENVIRONMENTAL SCIENCE PAPER NO. 1
AECC – 02

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

1. To be aware of the holistic ecological approaches to environment
2. To be aware of the environmental problems, hazards and risks
3. To understand the aspects of environmental pollution
4. To know our environmental resources and its conservation
5. To be aware of public duties for sustainable development of India
6. To be aware of the environmental policies, movements and ethics

THEORY

Unit – 1 Ecosystem – Earth, Man and Environment

- 1.1 Introduction
- 1.2 Definition of ecosystem
- 1.3 Structure of ecosystem
- 1.4 Food chain in the ecosystem
- 1.5 Food-web
- 1.6 Types of ecosystem
- 1.7 Effects of man on ecosystem

Unit – 2 Effect of Man on Environment

- 2.1 Introduction
- 2.2 Land pollution
- 2.3 Air pollution
- 2.4 Water pollution
- 2.5 Noise pollution

UNIT – 3 Environmental Problems Created after Development

- 3.1 Introduction
- 3.2 Ozone depletion
- 3.3 Green house effect
- 3.4 Global warming

UNIT – 4 Protection of Environment in India

- 4.1 Introduction
- 4.2 Environment related main movements in India
- 4.3 Environment related ethics
- 4.4 Environmental protection Acts.

RECOMMENDED READING

- 4) Chetan Singh Mehta (2000), Environmental Protection and the Law, New Delhi: Ashish Publishing house.
- 5) M.H.Tyagi (2005), Global Environmental issues Jaipur: Raj Publishing House.
- 6) R.B.Singh, D.K.Thakur (2009), Environmental Management Jaipur: Indus valley publication.
- 7) Timmy Katyal, M. Satake (2006), Environmental Pollution, New Delhi: Anmol publications Pvt. Ltd.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II
FUNDAMENTALS OF NUTRITION PAPER NO. 2
CC - 04
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- 1) The course enables the students to understand the functions of food and the role of various nutrients and the effect of deficiency and excess.
- 2) To learn about the composition and nutritional contribution and selection of different food stuff.
- 3) To be familiar with different methods of cooking, their advantages and disadvantages.

THEORY

Unit 1 Basic concepts in food and nutrition

- Basic terms used in study of food and nutrition
- Understanding relationship between food, nutrition and health
- Functions of food-Physiological, psychological and social

Unit 2 Nutrients

Functions, dietary sources, recommended dietary allowances and clinical manifestations of deficiency/ excess of the following nutrients:

- Carbohydrates, lipids and proteins
- Energy - Energy – Fuel and energy, energy yielding food factors, the energy value of food, energy units, basal metabolism, factors affecting BMR, BEE, recommended allowances for calories
- Fat soluble vitamins-A, D, E and K
- Water soluble vitamins – thiamin, riboflavin, niacin, pyridoxine, pantothenic acid, biotin, folate, vitamin B₁₂ and vitamin C
- Minerals – calcium, phosphorus, magnesium, sodium, potassium, chlorine, iron, iodine, zinc, selenium, copper
- Water – Functions, sources, water balance and requirement

Unit 3 Food Groups

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

- Cereals
- Pulses
- Fruits and vegetables
- Milk & milk products

- Sugar
- Meat, poultry, fish and eggs
- Fats and Oils

Unit 4 Methods of Cooking and Preventing Nutrient Losses

- Dry, moist, frying and microwave cooking
- Advantages, disadvantages and the effect of various methods of cooking on nutrients
- Minimising nutrient losses

PRACTICAL

1. Weights and measures; preparing market order and table setting
2. Food preparation, understanding the principles involved, nutritional quality and portion size
(Any one from each group with calculation of required nutrients)

- **Beverages:** Hot tea/coffee, Milk shake/ lassi, fruit based beverages
- **Cereals:** Boiled rice, pulao, chapatti, parantha, puri, pastas
- **Pulses:** Whole, dehusked
- **Vegetables:** curries, dry preparations
- **Milk and milk products:** Kheer, custard
- **Soups:** Broth, plain and cream soups
- **Snacks:** pakoras, cutlets, samosas, upma, poha, sandwiches
- **Salads:** salads and salad dressings.

RECOMMENDED READINGS

- Khanna K, Gupta S, Seth R, Mahna R, Rekhi T (2004). *The Art and Science of Cooking: A Practical Manual*, Revised Edition. Elite Publishing House Pvt Ltd.
- Raina U, Kashyap S, Narula V, Thomas S, Suvira, Vir S, Chopra S (2010). *Basic Food Preparation: A Complete Manual*, Fourth Edition. Orient Black Swan Ltd.
- Bamji MS, Krishnaswamy K, Brahmam GNV (2009). *Textbook of Human Nutrition*, 3rd edition. Oxford and IBH Publishing Co. Pvt. Ltd.
- Srilakshmi (2007). *Food Science*, 4th Edition. New Age International Ltd.
- Wardlaw and Insel MG, Insel PM (2004). *Perspectives in Nutrition*, Sixth Edition. Mosby.
- Chadha R and Mathur P (eds). *Nutrition: A Lifecycle Approach*. Orient Blackswan, Delhi 2015.
- Mudambi S (1981). *Fundamentals of Foods and Nutrition*. Wiley Eastern Ltd.
- Neelam Buddhdev, Bhavana Vaid (2004). *Fundamentals of Foods and Nutrition*. Pravin Prakashan.
- Human Nutrition - R. Rajlaxmi (1981). *Applied Nutrition*. Oxford and IBH Publishing Co.
- Thangam E. *Philip Modern Cookery – Vol. I and II*. Orient Longman Publication.
- M. Swaminathan (1979) *Food Science, Chemistry and Experimental Foods*. Ganesh and Co.
- F.P. Antia. (1982). *Clinical Dietetics and Nutrition*. Oxford University Press.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II**LIFE SPAN DEVELOPMENT – 1 PAPER NO. 3****CC – 05****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) To become acquainted with development stages from birth to old age.
- 2) To develop awareness of importance aspects of development during the whole life span.
- 3) To understand the issues faced and adjustment required at each stage across the life span.

THEORY:**Unit1: UNDERSTANDING HUMAN DEVELOPMENT**

1.1 Definition

1.2 Scope and multidisciplinary nature of Human Development.

1.3 Contexts, stages and domains of Development (Different stage on life span)

Unit2: GROWTH AND DEVELOPMENT

2.1 Definitions

2.2 Principles of Growth and Development: norms and milestones

2.3 Developments Factors-heredity and Environment, Learning and Maturity

Unit 3: PRENATAL DEVELOPMENT

3.1 Conception, Pregnancy and Birth.

3.2 Stage of Prenatal Development

3.3 Influences on Pregnancy

Unit 4: INFANCY

4.1 Definition

4.2 Developmental Task

4.3 Physical and Motor Development

4.4 Social and Language Development

Unit 5: EARLY CHILDHOOD YEAR

5.1 Definition

5.2 Character and Development Tasks.

5.3 Physical and Motor Development

5.4 Social and Language Development

PRACTICAL -

1) Methods of child study and their use:

Interview

Observations

Checklist

2) Prepare the album or the game in different development activity

3) Use of secondary sources to understand the depiction of children.

4) Collect information about the changes observed during pregnancy by face meeting with the pregnancy women.

RECOMMENDED READINGS

- 1) 1) Berk, L. E. (2007). Development through the lifespan. Delhi: Pearson Education.
- 2) Rice. F. P. (1998). Human Development: A lifespan approach. New Jersey: Prentice a. Hall.
- 3) Santrock, J. W. (2007). A topical approach to life-span development. New Delhi: Tata a. McGraw- Hill.
- 4) Singh, A. (Ed). 2015. Foundations of Human Development: A life span approach. New Delhi: Orient BlackSwan.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II
CLOTHING CONSTRUCTION PAPER NO. 4
CC – 06

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

1. This course will provide sound foundation for garment manufacturing techniques.
2. To develop skills in students related to body measurements using appropriate tools, sewing by non-automatic machine.
3. Application of appropriate constructional stitches, and preparation of fabric for clothing construction.

THEORY

Unit: 1 Sewing Machine

- 1.1 History of sewing machine
- 1.2 Types of sewing machine
- 1.3 Parts and functions of sewing machine
- 1.4 Operation of sewing machine
- 1.5 Care & maintenance of sewing machine

Unit: 2 Tools of Sewing

- 2.1 Measuring Tools - Function, use and care of the following tools:
- 2.2 Marking tools
- 2.3 Cutting tools
- 2.4 Sewing tools
- 2.5 Miscellaneous tools

Unit: 3 Measurements

- 3.1 Knowledge of various landmarks on the body, required for making garments.
- 3.2 Techniques of taking body measurements.
- 3.3 Types of Measurement

Unit: 4 Basic Stitches

- 4.1 Basic Hand stitches
- 4.2 Basic Machine Stitches

Unit: 5 Technique of Fullness

- 5.1 Type Tucks
- 5.2 Type Pleats
- 5.3 Smocking
- 5.4 Ruffles

Unit: 6 Point of well tailoring stitches**PRACTICAL**

- 1) Prepare a labelled outline diagram of sewing machine.
- 2) Make a Tools Chart with Sketch
- 3) Basic hand stitches

Project Work: Make Article Any One

1. Pleats
2. Smocking

RECOMMENDED READINGS -

- 1) Macall's sewing in colour, Hamlyn
- 2) Singer sewing Book, Gladys Cunningham, Golden Pr
- 3) Complete guide to sewing, Reader digest
- 4) Clothing construction, Evelyn A. Mansfield, Houghton Mifflin 1953
- 5) The technology of clothing manufacture, Harold Carr and Barbara Latham John Wiley Wiley & sons. 1994
- 6) The Art of Sewing, Thomas (Anna Jacob), UBS Publication distributor Ltd.
- 7) Isabel Sutherland Ed. Home dress making Pan Craft Book

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II
EXTENSION MANAGEMENT PAPER NO. 5
DSE – 02
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

To enable students to-

- 1) Understand the widening concept of extension.
- 2) To know about extension program planning.
- 3) To develop skills for program planning.

THEORY

Unit 1 Extension: Concept

1.1 Extension: concept. Goals, philosophy and history

1.2 Adult learning Components of Extension

1.3 Principles of extension

1.4 Relationship between communication and extension- role of extension in development

Unit 2 Methods and Approaches of Extension

2.1 Stakeholders in development

2.2 People's participation and social mobilization in development

2.3 Extension systems- types, advantages and disadvantages

2.4 Diffusion of innovation and adoption

2.5 Extension methods and approaches- classification, characteristics and selection

Unit 3 Development Programs

3.1 Development issues and goals-national and international perspectives

3.2 National Development Programmes- goals, strategies, structure and achievements

3.3 Analysis of contemporary national development programmes-objectives, clients, salient features, outcomes and communication support.

3.4 Behavior Change Communication strategies in development programmes

PRACTICALS

- 1) Analysis of development programmes
- 2) Evaluate strategies used by development agencies for implementation of development programmes
- 3) Develop skills in planning and using individual and small group methods in extension

RECOMMENDED READINGS

- 1) Mikkelsen, Britha, (2002). Methods for Development Work and Research. New Delhi: Sage Publications
- 2) Date R. (2004) Evaluating Development Programmes and Projects. New Delhi: Sage Publications
- 3) Kumar & Hansra. (1997) Extension Education for Human Resource Development. New Delhi: Concept Publishers.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II
BASIC OF COMPUTER & ITS APPLICATIONS PAPER NO. 6
SEC – 03

(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)

OBJECTIVES

To enable the students to -

1. Know the basics of computers;
2. To be able to use computers for education, information and research.

Session 1: Lab Guide

Working with Windows OS

- 1.1 Working with Desktop
- 1.2 Creating Folder
- 1.3 Creating Text Files
- 1.4 Renaming and Deleting the File And Folder
- 1.5 Working with Recycle Bin
- 1.6 Shutting Down

Session 2: Lab Guide

MS-Word 2007

- 2.1 How to Start MS-Office
- 2.2 Office Button – New, Open, Save, Save As, Print, Print Preview, Close
- 2.3 Home Menu – Clipboard, Font, Paragraph, Style, Editing
- 2.4 Insert Menu – Pages, Tables, Illustrations, Header & Footer
- 2.5 Page Layout – Themes, Page Setup, Page Background, Paragraph

Session 3: Lab Guide

MS-Power Point 2007

- 3.1 How to Start Power Point
- 3.2 Office Button – New, Open, Save, Save As, Print, Send, Close
- 3.3 Home Menu – Clipboard, Font, Paragraph, Drawing, Editing
- 3.4 Insert Menu – Tables, Illustration, Header & Footer
- 3.5 Design Menu – Page Setup, Themes, Background,
- 3.6 Animations Menu – Preview, Animations, Transition

3.7 Slide Show Menu – Start Slide Show, Set Up

Session 4: Lab Guide

Internet

4.1 Email – Create your E-Mail Account

4.2 Log into E-Mail Account

4.3 Read an E-Mail, Send an E-Mail

4.4 Sending Soft Copy as Attachments

4.5 Download Attachments.

4.2 Open Following Websites.

1. Your College Website
2. Saurashtra University Website
3. [http www.irctc.com.in](http://www.irctc.com.in)
4. [http www.yatra.com](http://www.yatra.com)

Practical –

- 1) Prepare an application for the post of a lecturer in College in MS- Word.
- 2) Prepare a resume in MS-Word.
- 3) Prepare your semester – 2 time table in MS-Word.
- 4) Enlist your semester – 1 and semester – 2 subjects in MS-Word.
- 5) Prepare a bar chart of your college H.Sc. semester – 6 results of last 5 years in MS-Word.
- 6) Prepare a pie chart of your class semester – 1 result in MS-Word.
(Number of girls and got grade or class.)
- 7) Prepare a visiting card for hobby classes/tuition class/ beauty parlour in MS-Word.
- 8) Prepare an invitation card for inauguration of your shop in MS-Word.
- 9) Prepare a power point presentation to give information about home science.
- 10) Prepare a power point presentation for your hobby classes/ beauty parlour/ boutique.

RECOMMENDED READINGS –

- 1) Microsoft office 2007 2nd edition by computer world.
- 2) Bano computer expert 5th edition by computer world.
- 3) Beginner's guide 2001 by Aptech Limited
- 4) Computer application & I-1 by C. Jamnadas & company.

F.Y.H.B.Sc. (HOME SCIENCE) SEMESTER –II

TRAVEL AND TOURISM PAPER NO. 7

SEC – 04

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES:-

This has been done keeping in view the diversities of the disciplines constituting the area of Tourism Studies. The idea is to :

- 1) Familiarize students with varied aspects of tourism,
- 2) Create awareness about tourism,
- 3) Map out the various skills required for a career in tourism, and
- 4) List simultaneously the career opportunities in this sector.

THEORY

Unit-1 Tourism : Concepts

- 1.1 Defining Tourism ,international tourism, domestic tourism, inbound, out bound
- 1.2 Tourism Product and services
- 1.3 Tourism : Forms and Types
- 1.4 Purpose of Tourism
- 1.5 Profiling of Tourist-Profiling of foreign Tourist, Profiling of Domestic Tourist
- 1.6 Modern tourism in India

Unit-2 Constituents of Tourism

- 2.1 Tourism Industry
- 2.2 Primary Constituents
- 2.3 Secondary Constituents

Unit-3 Tourism Services

3.1 The travel Agency - Ticketing, Booking and cancellations, Special services, facilitation.

3.2 Tour Operator- Package tour, Planning a tour, Costing a tour

3.3 Guides and Escorts - Definition, Role of the guide, Guiding as a technique, Escorting a tour

Unit-4 Guide and Planning the Tour

4.1 Introduction

4.2 Sources of information

4.3 Planning the tour

4.4 Preparing for the tour

4.5 Under taking the tour

Unit-5 Tourism regulations

5.1 Inbound-Outbound travel regulation

5.2 Economic regulation 5.3

Health regulation 5.4

Law and order regulation

5.5 Accommodation and catering regulation

5.6 Environment protection and con

RECOMMENDED READING -

1) An Introduction to the Travel and Tourism- - David w. Howe IIE

2) Tourism Development and Management- Mario D'souza

3) Tourism System- - Robert Chritie Mill

4) Tourism Development in India- - Sutula Chopra

5) International Tourism Development- - S.P.Singh

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –III**PHYSICAL SCIENCE PAPER NO.1****CC – 07****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) The students will be able to understand about different solutions, their applications, and pH.
- 2) The students will understand about lipids, polymers and polymerization.
- 3) The students will understand about mechanics, heat and electricity and its applications.

SECTION A- CHEMISTRY**Unit 1 SOLUTIONS**

- 1.1 Types of solutions
- 1.2 Different ways of expressing concentration of solution
- 1.3 Colloids and its properties
- 1.4 Types of colloids
- 1.5 Colloids in daily life

Unit 2 ACIDS, BASES AND SALTS

- 2.1 Concept of acid, base and salt
- 2.2 Neutralization reaction
- 2.3 pH and pH scale
- 2.4 buffer solutions
- 2.5 Applications in everyday life

Unit 3 HOUSEHOLD CHEMICALS

- 3.1 Chemicals in foods- preservatives and colourants
- 3.2 Antiseptics and disinfectants
- 3.3 Soaps and detergents

SECTION B- PHYSICS**Unit 1 MECHANICS**

- 1.1 Measurements of Physical Quantities- Units and dimensions.
- 1.2 Different types of motions. Laws of motions and examples.
- 1.3 Gravity and Gravitation.
- 1.4 Work, Power and Energy.

Unit 2 HEAT

- 2.1 Temperature and its measurements.
- 2.2 Calorimetry. Change of state with applications.
- 2.3 Heat Transfer- Modes and examples.

Unit 3 ELECTRICITY

- 3.1 Concept of current, voltage and resistance – Ohm's Law.
- 3.2 Conductors and Insulators of electricity and their applications.
- 3.3 Household wiring-safety features-fuse, MCB and earthing.
- 3.4 Efficient transmission of electric power.

Unit 4 CONSUMER AWARENESS

- 4.1 Guarantee and warranty of all household equipments.
- 4.2 Precautions while using equipments and servicing of equipment used.

PRACTICALS**Section A- CHEMISTRY**

1. Preparation of standard solutions
2. Determination of pH of different solutions
3. Qualitative analysis of aqueous solutions of simple salts

Section B- PHYSICS

1. Comparison of thermometric scales of temperature using graph method.
2. Setting up of two days lighting circuit and calculation of cost of electricity consumed.
3. Repair and testing of electric iron and fuse.
4. Ohms law verification.
5. Determination of 'g' by simple pendulum method.

RECOMMENDED READINGS

- Arun Bahl and B.S. Bahl : 2010, Advanced Organic Chemistry, S. Chand
- T. Jacob, 1979, Textbook of Applied Chemistry by McMillian India Ltd.
- Puri, Sharma and Pathania, 2008, Principles of Physical Chemistry by Vishal Publishing House.
- Ahluwalia, V.K. Dhingra, S., Gulati, A., 2005, College Practical Chemistry University Press India Pvt. Ltd.
- B.Sc. Practical Physics by Harnam Singh, S. Chand and Co, 2001.
- Lal. S. (1995). Fundamentals Physics, Pradeep Publications, Delhi.
- Peet, L.J., Pickett, M.S. & Arnold, M.G.(1979), Household Equipment, John Wiley and Sons, USA.
- Partab, H. (1987). Electrical Gadgets. Dhanpat Rai & Sons.
- Sharma, S.K. & Jerath, R. (2013). Dinesh New Millennium Physics. Vol. I and Vol. II.
- Khan, N. (2008). Physics. Oxford University Press.

- Ahluwalia, V.K. Dhingra, S., Gulati, A., 2005, College Practical Chemistry University Press India Pvt. Ltd.
- B.Sc. Practical Physics by Harnam Singh, S. Chand and Co, 2001.
- Lal. S. (1995). Fundamentals Physics, Pradeep Publications, Delhi.
- Peet, L.J., Pickett, M.S. & Arnold, M.G.(1979), Household Equipment, John Wiley and Sons, USA.
- Partab, H. (1987). Electrical Gadgets. Dhanpat Rai & Sons.
- Sharma, S.K. & Jerath, R. (2013). Dinesh New Millennium Physics. Vol. I and Vol. II.
- Khan, N. (2008). Physics. Oxford University Press.
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T.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –III
LIFE SPAN DEVELOPMENT – 2 PAPER NO.2
CC – 08

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

1. To become acquainted with development stages from birth to old age.
2. To develop awareness of importance aspects of development during the whole life span.
3. To understand the issues faced and adjustment required at each stage across the life span

Unit 1: Middle Childhood Years

- 1.1 Changes , Challenges and development task
- 1.2 Physical motor development
- 1.3 Cognitive, personality and language development
- 1.4 Socio-emotional and moral development

Unit 2: Introduction to Adolescence

- 2.1 Definition and theoretical perspective
- 2.2 Physical, physiological changes
- 2.3 Cognitive and language development
- 2.4 Socio-emotional and moral development

Unit 3: Young Adulthood

- 3.1 Transition from adolescences to adulthood
- 3.2 Development tasks of adult
- 3.3 Socio-emotional development, relationships, marriage and parenting
- 3.4 Cognition and creative: work, vacation and leisure

Unit4: Middle and late Adulthood

- 4.1 Development takes of middle and late adulthood
- 4.2 Physical and physiological changes and again
- 4.3 Diversity in roles and relation
- 4.4 Parenting growing children
- 4.5 Cultural perspective on again and death

PRACTICAL

- 1Methods of study and their use
- Reviewing Interview and Observer
- Questionnaire
- Case Study
- Sociometry

2 Case profiles to study Middle Childhood/ adolescence / young adolescences / late adulthood

- 3 Depictions of adolescence and adulthood in media: Audio-visual, print and theatre
- 4 Group Dission – Late Adulthood Problems.

RECOMMENDED READINGS:

- Rice, F.P(1995), human development new jersey: prentice hall
- brek,L.E(1995),child development, London: allyn and bacon
- dutt S (1998).moral values in child development ,new Delhi :ammol santock,J.W and yussen, S.R(1998).child development: an introduction
- Element of child development
- Fundamental of children development and child care- Sharma & lata Gairda.

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –III**NUTRITION FOR THE FAMILY PAPER NO.3****CC – 09****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES****This course will enable the students to**

1. Diet and the importance of meal planning.
2. Gain Knowledge about dietary management in common ailments.
3. Know about RDA and healthy food choices.

Unit 1 Basic concepts meal planning

- 1.1 Food groups and concept of balanced diet
- 1.2 Food exchange list
- 1.3 Concept of Dietary Reference Intakes
- 1.4 Factors effecting meal planning and food related behavior.
- 1.5 Dietary guidelines for Indians and food pyramid.

Unit 2 Nutrition during the adult years

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

- 2.1 Adult
- 2.2 Pregnant woman
- 2.3 Lactating mother
- 2.4 Elderly

Unit 3 Nutrition during childhood

Growth and development, growth reference/ standards, RDA, nutritional guidelines, nutritional concerns and healthy food choices.

- 3.1 Infants
- 3.2 Preschool children
- 3.3 School children
- 3.4 Adolescents

PRACTICAL

1 Introduction to meal planning

- Use food exchange list

2 Planning and preparation of diets and dishes for

- Young adult
- Pregnant and Lactating woman
- Preschool child
- School age child and adolescents
- Elderly

3 Planning complementary foods for Infants

RECOMMENDED READINGS

- 1) Seth V and Singh K (2006). *Diet Planning through the Life Cycle: Part 1 Natural Nutrition. A Practical Manual*. Elite Publishing House Pvt. Ltd., New Delhi.
- 2) Gopalan C. Rama Sastri BV, Balasubramanian SC (1989) *Nutritive Value of Indian Foods*, National Institute of Nutrition, ICMR, Hyderabad.
- 3) Khanna K. Gupta S. Seth R, Passi SJ, Mahna R, Puri S (2013). *Textbook of Nutrition and Dietetics*. Phoenix Publishing House Pvt. Ltd.
- 4) Wardlaw GM. Hampi JS. DiSilvestro RA (2204). *Perspectives in Nutrition*. 6th edition. McGraw Hill.
- 5) ICMR (2011) *Dietary Guidelines for Indians*. Published by National Institute of Nutrition. Hyderabad.
- 6) ICMR (2010) *Recommended Dietary Allowances for Indians*. Published by National Institute of Nutrition, Hyderabad.
- 7) Chadha R and Mathur P eds. *Nutrition: A Lifecycle Approach*. Orient Blackswan, New Delhi. 2015.

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –III
FUNDAMENTAL OF TEXTILE PAPER NO.4
DSC – 03
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

1. To acquired the knowledge of different kinds of nature & manmade fibers, Yarns & Fabric construction
2. To develop the basic knowledge of Weaving, Knitting

THEAORY

Unit :1 Textile fibers and their properties

- 1.1 Primary and secondary properties of textile fibers with reference to their effect on fiber characteristics
- 1.2 Classification of fibers
- 1.3 Origin, production and properties of various fibers: Natural-cotton, wool, silk. Man-made- (nylon C₆) fibers

Unit : 2 Yarns

- 2.1 Types of yarns: Simple, Complex, Textured
- 2.2 Properties of yarns: Yarn numbering systems and twist

Unit :3 Fabric construction

- 3.1 Weaving: Parts and functions of the loom
- 3.2 Weaves : Classification, construction, characteristics and use
- 3.3 Knitting: Classification, construction, characteristics and use
- 3.4 Non woven and felts-construction, properties and use

Unit : 4 Terminology used in textile

PRACTICAL

1. Collection & Identification of different fabric
2. Fiber Identification tests –Visual, burning, microscopic and chemical
3. Weaves- Identification and their design interpretation on graph
5. Visit – Any One
 - Weaving service center
 - Spinning mill/
 - Handloom sector

RECOMMENDED READINGS:

1. Textiles- Fiber to Fabric (6th Edition), Corbman, P.B., (1985) Gregg Division/McGraw Hill Book Co., US.
2. Essentials of Textiles (6th Edition), Joseph, M.L., (1988) Holt, Rinehart and Winston Inc., Florida.
3. Textbook of Fabric Science: Fundamentals to Finishing, Sekhri S., (2013) PHI Learning, Delhi.
4. Understanding Textiles, Tortora, G. Phyllis, McMillan Co. USA.

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –III
HOME BASED CATERING PAPER NO.5
SEC – 05

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

- 1) To know about tools of catering management.
- 2) To know about resources require for catering management.
- 3) To manage the available resources for catering management

Unit 1: Introduction to Catering Management

- Principles & functions of catering Management
- Tools of Catering Management for the following organizational
 1. Top Management
 2. Middle Management
 3. Line Management
 4. Operational Staff (worker)

Unit 2: Management of Resources available to the Catering Manager

- Menu planning: Importance of menu, Factors affecting menu planning,
Menu planning for different kinds of food service - such as; school/college
Students ; industrial workers; hospitals canteens ;outdoor parties; theme
Dinners; transport/mobile catering
Parameters for quantity food menu planning
- Food Purchase and Storage
- Quantity Food production: Standardization of recipes, quantity food
preparation techniques, recipe adjustments and portion control
- Hygiene and Sanitation

Unit 3: Resources

- Money
- Manpower
- Time
- Facilities and equipment
- Utilities

Unit 4 : Planning Of A Food Service Unit

Preliminary Planning

Survey of types of units, identifying clientele, menu, operations and delivery

Planning the set up:

- a) Identifying resources
- b) Developing Project plan
- c) Determining investments
- d) Project Proposal

RECOMMENDED READINGS

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

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –III
INFORMATION, EDUCATION AND COMMUNICATION MATERIAL FOR
DEVELOPMENT PAPER NO.6

SEC – 06

(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)

OBJECTIVES

This course will enable the students to

1. To know the role of IEC material for development
2. To develop skill for selection preparing IEC materials.

PRACTICAL

1. Concept of IEC Material

1.1 Meaning of IEC Material

1.2 Importance and scope of IEC material for development.

1.3 Different types of IEC materials for development.

1.4 Role of IEC material for development.

2. Guidelines for Development of IEC Materials

2.1 Selection of IEC material

- Strength and Limitations of Various IEC materials
- Criteria for selecting IEC material
- IEC materials for combining for greater impact

2.2 Developing a creative brief

- Importance of creative brief.
- Elements of creative brief.

2.3 Preparing prototype IEC material

- Guidelines for developing new IEC material
- Qualities of effective IEC material

2.4 Pretesting the prototype of IEC material

- Assessing the pretested results and revising IEC materials
- Monitoring the use and impact of IEC materials.

3. Various Types of IEC Materials for Development

3.1 Graphics and audio visual charts, posters, flashcards, flexes, flip books, pamphlets, leaflets.
 Brochures, booklets, modules, manuals

3.2 Mass Media: IEC materials for radio, television, newspapers and magazines

- Radio scripts writing
- T.V. programme scripts writing

News paper, magazine article writing

Learning Activities

1. Content analysis of various IEC material for development messages.
2. Designing layouts for various IEC materials
3. Writing scripts on selected development issues for radio, and T.V. programmes,
4. Viewing and recording various types of television and radio programmes.
5. Preparation of various graphic (IEC) materials
6. Identifying various IEC materials used by NGO's and GO's for development work.

RECOMMENDED READINGS

- Enderson (1972): Introduction to communication theories and practices. Cummings publishing house. California
- Bernice Hurst (1996): The handbook of communication skills, Kogan Page Limited, London.
- Chandra A. Shah A, Joshi U (1989): Fundamentals of teaching home science. Sterling publishers, New Delhi
- Wittich and Schulter (1967): Audio visual materials. Havper & Row publications. London
- Keval Kumar (2010): Mass communication in India, Jaico publishing house, Ahmedabad

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –IV
FOOD SAFETY PAPER NO.1
CC – 10
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- To understand the following
- Food safety and hygiene
- Types of hazards associated with food
- Food regulations (national as well as international)

THEORY**UNIT – 1: Introduction to Food Safety and its Recent Concerns**

- 1.1 Definition
- 1.2 Types of hazards, biological, chemical, physical hazards
- 1.3 Factors affecting Food Safety
- 1.4 Importance of Safe Foods
- 1.5 Organic Foods
- 1.6 Newer approaches to food safety.

UNIT – 2: Food Hazards of Physical and Chemical Origin

- 2.1 Introduction
- 2.2 Physical hazards with common examples
- 2.3 Chemical hazards (naturally occurring, environmental and intentionally)
- 2.4 Added), Packing material as a threat
- 2.5 Impact on health
- 2.6 Control measures

UNIT – 3: Food Hazards of Biological Origin

- 3.1 Introduction
- 3.2 Indicator Organisms
- 3.3 Food borne pathogens : bacteria, viruses and eukaryotes
- 3.4 Seafood and shell fish poisoning
- 3.5 Mycotoxins

UNIT – 4: Management of hazards

- 4.1 Need
- 4.2 Control of parameters
- 4.3 Temperature control
- 4.4 Food storage

UNIT – 5: Hygiene and Sanitation in Food Services Establishments

- 5.1 Introduction
- 5.2 Sources of contamination
- 5.3 Control methods using physical and chemical agents
- 5.4 Waste disposal
- 5.5 Pest and Rodent Control
- 5.6 Personnel Hygiene

UNIT – 6: Food laws and standards

- 6.1 Indian Food Regulatory Regime
- 6.2 Global Scenario
- 6.3 Other laws and standards related to food.

PRACTICAL

- 1) Visit to a local commercial food manufacturing and packing unit.
- 2) To food testing laboratory OR frozen food and prepare & storage plant.
- 3) Prepare the food package in any packing materials with labelling.
- 4) Bacteriological analysis of water by MPN method or any method.
- 5) Assessment of surface sanitation by swab and rinse method
- 6) Assessment of personnel hygiene.

RECOMMENDED READINGS

- 1) Lawley, R. Curtis L. and Davis J. The Food Safety Hazard Guidebook. RSC publishing 2004.
- 2) De Vries Food Safety and Toxicity. CRC. New York 1997.
- 3) Marriott, Norman G. Principles of Food Sanitation AVI, New York, 1985.
- 4) Forsythe, S.J. Microbiology of Safe Food, Blackwell Science, Oxford, 2000.
- 5) Forsythe, S.J. The microbiology of Safe Food, second edition. Willey – Blackwell, U.K. 2010.
- 6) Mortimore S. and Wallace C.HACCP.A. practical approach. Chapman and Hill, London, 1995.
- 7) Blackburn CDW and Mc Clure P.J Food borne pathogens. Hazards, risk analysis & control CRC Press, Washington, U.S.A. 2005.

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –IV
PERSONAL FINANCE AND CONSUMER STUDIES PAPER NO.2
CC – 11
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- 1) To know about income and saving
- 2) To understand the role of consumer in the market.
- 3) Become aware for marketing condition and rights responsibilities of Consumers.
- 4) Recognize the problems in buying and know about the means of redressed.

Unit 1 Income and Expenditure

- 1.1 Household Income-Types, Sources, Supplementation of family income, use of family income, budgets, maintaining household accounts
- 1.2 Factors influencing expenditure pattern
- 1.3 Family savings and investments-need, principles, channels of investment, tax implications
- 1.4 Consumer credit-need, sources, credit cards, Housing finance

Unit 2 Importance of consumer education

- 2.1 Consumer-Meaning and Definition
- 2.2 Rights responsibilities of consumer
Rights-To safety, To choose, To be heard, To get information, To redress and
To get healthy environment

Unit 3 Advertisement

- 3.1 Meaning, Importance, Characteristics, Advantage and disadvantages
- 3.2 Psychology of advertisement
- 3.3 Types of advertisement
- Press medium – Radio, T.V., and Cinema
- Direct publicity- Packaging and Display
- Outdoor publicity

Unit 4 Consumer protective services

- 4.1 Development and aims of consumer organization in India
- 4.2 Consumer education and research center- Ahmedabad
- 4.3 Consumer guidance society-Bombay
- 4.4 Educational institutions
- 4.5 Indian standard institution
- 4.6 Consumer co-operatives
- 4.7 Government agencies, Municipalities.

PRACTICALS:

- 1) Case study of banks and post offices to understand their services and products, Learning to fill different bank forms.
- 2) Visit to a Grahak suraksha samiti
- 3) To get information about-Brand, Trade mark, Agmark, Labelling, Packaging, I.S.I.,
- 4) Effect and impact of advertising on consumer buying

RECOMMENDED READINGS

- Khanna S.R., Hanspal S., Kapoor S. & Awasthi H.K., 2007, Consumer Affairs, Universities Press Indian Pvt., Ltd.,
- Sawhney, H.K. & Mital, M., 2007, Family Finance & Consumer Studies, Elite Publishing House Pvt. Ltd.
- Seetharaman, P. and Sethi, M., 2001, Consumerism: Strength and Tactics, New Delhi: CBS Publishers.
- Sarkar A. (1989); Problems of consumer in modern India, Discovering publishing House
- Consumer Report, CERC, Thakurbhi Desai smark bhavan, Ahmedabad
- Consumer Conformation, CERC, Thakurbhai Desai smark bhavan, Ahmedabad.
- Agrwal V.K.(1989) Consumer protection in India with special reference to unfair trade practices, New Dehli; Deep and Deep publishers.

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –IV
COMMUNICATION SYSTEMS AND SOCIAL CHANGE PAPER NO.3
CC – 12
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

This course will enable the students to

1. Understand the process of communication in development work.
2. Develop skills in the use of mass media.
3. To know usefulness about mass communication.

Unit 1 Understanding Self

- 1.1 Awareness of self in communication
- 1.2 Intrapersonal Communication
- 1.3 Self-concept and self esteem

Unit 2 Interpersonal Communication

- 2.1 Concept, types and functions of interpersonal communication
- 2.2 Dyadic, small and large group communication
- 2.3 Stages in human relationship development
- 2.4 Small group communication: types and functions

Unit 3 Organization, Public and Mass Communication

- 3.1 Organizational communication: concept, types, functions and networks
- 3.2 Public communication-concept and techniques
- 3.3 Mass Communication- concept, significance, functions and elements
- 3.4 Theories and models of mass communication
- 3.5 Intercultural communication- concept, stages and barriers
- 3.6 Relationship between culture and communication

Unit 4 Mass Media

- 4.1 Mass Media- characteristics and significance of print, electronic and web based media
- 4.2 Print Media: types, nature, characteristics, reach, access.
- 4.3 Radio: types, nature, characteristics, reach, access.
- 4.4 Television and cinema: types, nature, characteristics, reach, access.
- 4.5 ICTs: types, characteristics, reach and access.

PRACTICAL

- Exercises for understanding Self.
- Studying group dynamics in organizations-formal and informal.
- Audience analysis- readership, listenership and viewership studies
- Content analysis of mass media

RECOMMENDED READINGS

- Devito, J. (1998) Human Communication. New York: Harper & Row.
- Baran, S. (2014) Mass Communication Theory. Wadsworth Publishing
- Barker, Larry Lee. (1990) Communication, Eaglewood Cliffs, New Jersey: Prentice Hall.
- McQuail, D. (2000) Mass Communication Theories. London: Sage Publications
- Vivian. J. (1991) The Media of Mass Communication
- Stevenson. D. (2002) Understanding Media Studies: Social Theory and Mass Communication. Sage Publications

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –IV
PUBLIC NUTRITION PAPER NO.4
DSE – 04
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- To orient students to the basic principles of public nutrition
- To learn about Nutrition-Health-Communication (NHC) programmes and experiences in the developing world of India
- To gain skills in planning and conducting NHC projects

THEORY

UNIT – 1

A Concept and Scope of Public Nutrition

- a) Definition and multidisciplinary nature of public nutrition.
- b) Concept and scope.
- c) Role of public nutritionist.

B Health Care of the community.

- a) Concept of Health Care.
- b) Different Levels of Health Care.
- c) Health Care Services at different levels.

UNIT – 2 Nutritional problems, their implications and related nutrition programmes.

A Etiology, prevalence, clinical features and preventive strategies of.....

- a) Protein energy malnutrition
- b) Nutritional Anaemia
- c) Vitamin A deficiency
- d) Iodine deficiency
- e) Zinc deficiency
- f) Obesity
- g) Heart Diseases
- h) Diabetes

B National Nutrition Programmes.

- a) Integrated Child Development Services(ICDS)

- b) Mid Day Meal Programme
- c) National Anaemia Control Programme
- d) Vitamin A Prophylaxis Programme
- e) Iodine deficiency Disorder Control Programme

UNIT – 3 Behaviour Change Communications.

Themes and messages in nutrition and health education.

- Themes in nutrition education.

Theme: nutrition during school age, adolescence, adulthood and old age.

- Themes in health education.

Theme: Preventing and Treating Common sicknesses and problems.

Messages in nutrition and health education.

- Messages in nutrition education.
- Messages in health education.
- How to improve relevance and effectiveness of a message.

UNIT – 4

A Nutrition & Health Education.

Objectives, principals and scope of nutrition and health education.

B Nutrition Education Programme – Planning, Implementation and Evaluation.

- a) Need for nutrition and health education Programmes.
- b) Essentials of Nutrition – Education Planning.
- c) Planning and Implementation of nutrition education Programme.
- d) Evaluation of nutrition education Programme.

PRACTICAL:

- 1 Planning and preparation of snacks for
 - a) PEM,
 - b) Vitamin A deficiency (VAD)
 - c) Nutritional anaemia.
- 2 Prepare messages to educate the community by making different messages on nutrition and health.
- 3 Visit to any National Programme / Organization working on nutrition and /or health.

RECOMMENDED READINGS

- 1 Wadhwa A and Sharma S. (2003), Nutrition in the community- A textbook. Elite publishing house Pvt. Ltd., New Delhi.
- 2 Park K. (2011). Park's Textbook of preventive and social medicine., 21st edition. M/S Banarasidas Bhanot Publishers, Jabalpur , India.
- 3 Bamji MS , Krishnaswamy K. and Brahman GNV (Eds) (2009). Textbook of Human Nutrition, 3rd Edition, Oxford and IBH Publishing Co. Pvt. Ltd., New Delhi.
- 4 IGNOU DNE 2 and 3- Block 2 and 6.
- 5 Dietary Guideline for Indian A manual of NIN, ICMR (1989) , Hyderabad.

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –IV
EARLY CHILDHOOD CARE AND EDUCATION PAPER NO.5
SEC – 07
(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)

OBJECTIVES

- 1) To understand the concept and significance of early child care education.
- 2) To develop understanding of child care education.
- 3) To create competent and skilled professionals to work in the areas of child care and education

PRACTICAL

1. To identify appropriate features of physical social environments that will promote all round development in young children
2. Identify, plan and record activities and methods of playful interactions to foster development in children birth –two years
3. Identify, plan and record activities and methods of playful interactions to foster development in children two -six years
4. Workshops in any two of the following
 - Understanding childhood nutrition and health
 - Developing work sheets to teach concepts
 - Enhancing social and language skills
 - Music, movement and drama for children
5. Curriculum planning and space design
6. Methods and tools to assess progress of children and programme
7. Setting up a crèche /preschool

RECOMMENDED READINGS

- 1) Adobe Photoshop 7.0 Classroom in a Book, 25 June 2002, by Adobe Creative Team
- 2) AutoCAD 2012 (Manual Indispensable / Essential Manuals), 30 June 2011, by Antonio Manuel Reyes Rodriguez

S.Y.B.H.Sc. (HOME SCIENCE) SEMESTER –IV
TEXTILE DESIGN PAPER NO.6
SEC – 08
(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)

OBJECTIVES

- (1) Impart knowledge of different textile design
- (2) To develop skill in textile design
- (3) Improve the skill on garment marking
- (4) To develop the process of textile design

PRACTICAL

1. Fabric manipulation –cuts, removal of threads
2. Surface Decoration - Embroidery, Ari work, Embellishments
3. Design through color application (any five)
 - Tie and dye
 - Batik Resist Print
 - Block Print
 - Stencil Print
 - Vegetable & Leaves Print
 - Figure / Thumb Print
 - Nib Print
 - Tanjoy Print
 - Mirror Print
 - Thread Print
4. Thread structure- macramé, braiding, lace making (crochet, tatting)
5. Surface layering
 - Appliqué- simple, cut, felt
 - Quilting- Hand and Machine
6. Visit (any one)
 - Tie and Dye Unit
 - Printing Unit

RECOMMENDED READINGS

- 1) Soft Surface Juracek, A. Judy,2000, , Thames & Hudson Ltd.
- 2) Fabric Left Overs Milne D'Arcy Jean,2006, , Octopus Publishing Group Ltd.
Textile Surface Decoration-Silk & Velvet,Singer Margo,2007, A

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V
RESEARCH & DOCUMENTATION PAPER NO.1
DSE – 05

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

To enable students to

1. Understand the fundamental principles of methodology concerning research;
2. Prepare research tools applicable to developmental issues;
3. Develop skills in documentation

THEORY

UNIT – 1 Research

- 1.1 Introduction
- 1.2 Meaning and Definition of Research
- 1.3 Characteristics of Social Research
- 1.4 Objectives of Research
- 1.5 Role of Research in Home-Science

Unit – 2 Main Steps and Importance of Research

- 2.1 Introduction
- 2.2 Major Steps of Social Research
- 2.3 Importance of Research
- 2.4 Types of Social Research
 - 2.4.1 Pure Research
 - 2.4.2 Applied Research

Unit – 3 Hypothesis of Research

- 3.1 Introduction
- 3.2 Meaning and Definition of Hypothesis
- 3.3 Characteristics of Hypothesis
- 3.4 Sources of Hypothesis
- 3.5 Functions of Hypothesis
- 3.6 Limitations of Hypothesis

Unit – 4 Data Gathering Instruments

- 4.1 Introduction
- 4.2 Observation
- 4.3 Questionnaire

4.4 Interview

4.5 Survey

Unit – 5 Sampling

5.1 Introduction

5.2 Meaning and Definition of Sample

5.3 Characteristics of Good Sampling

5.4 Needs and Use of Sampling

5.5 Types of Sampling

Unit – 6 Classifications and Presentation of Data

6.1 Introduction

6.2 Classification of Data

6.3 Coding Data

6.4 Tabular Presentation of Data

6.5 Graphic Presentation of Data

Unit – 7 Research Design

7.1 Introduction

7.2 Meaning and Definition of Research Design

7.3 Some Important Point to Be Consider While Preparing the Research Design

PRACTICAL

A Project Preparation on Home Science Related Subjects by Survey, Interview, and Questionnaire Method.

RECOMMENDED READINGS

- A.N.Sadhu,(1980). Research methodology in social science, Bombay: Himalayas Publishing House,
- Dr. G.B.Singh, (2011). Research Methodology I, Jaipur: Paradis Publishers.
- M.N.Borse, (2004). Research Methodology, Jaipur: Shree Niwas Publications.
- Vandana Vohra, (2013), Research Methodology, Jaipur: Pratiksha Publication.

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V
CHILDREN WITH DISABILITIES PAPER NO.2
DSE – 06

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- 1) To appreciate the special needs of children with different disabilities and disorders:
- 2) To gain insights into the causes of disability and disorders in children, and into their prevention.
- 3) To be sensitized to the similarities and differences between disabled and non-disabled children.

Unit 1 Introduction to Childhood Disabilities

- 1.1 Defining disabilities
- 1.2 Models of disability
- 1.3 Classifying disabilities
- 1.4 Social construction of disability
- 1.5 Demography

Unit 2 Common Childhood Disabilities

Identification, Assessment and aetiology with reference to

- 2.1 Locomotors disability
- 2.2 Visual disability
- 2.3 Auditory and speech disability
- 2.4 Intellectual disability
- 2.5 Autism
- 2.6 Learning Disability

Unit 3 Children with Disabilities and Society

- 3.1 Families of children with disability
- 3.2 Prevention and management of different disabilities
- 3.3 Educational practices- Special education and inclusion
- 3.4 Policy and laws

PRACTICAL

1. Visits to organisations working with children with disabilities
2. Observing children with disabilities in families and institutions
3. Planning developmentally appropriate material for children with disabilities
4. Exploring audio-visual sources with reference to children with disabilities and their families
5. Select psychometric tests (Ravens Progressive matrices, Portage, Tests for detecting Learning Disabilities)

RECOMMENDED READINGS

- 1) Chopra,G., (2012). *Early Detection of Disabilities and persons with disabilities in the community*. New Delhi: Engage publications

2) Chopra, G., (2012). *Stimulating Development of Young Children with Disabilities at Anganwadi and at Home: A Practical Guide*. New Delhi: Engage publications.

3) Sharma, N. (Ed)(2010). *The Socail Ecology of Disability-Technical Series -3Lady Irwin College*. Delhi: Academic Excellence

4) Mangal, S. K. (2007). *Exceptional children: An introduction to special education*. New Delhi: Prentice Hall of India

5) Jangira, N.K.(1997) "Special Educational Needs of Children and Young Adults: An Unfinished Agenda," *Education and Children with Special Needs: From Segregation to Inclusion*, Ed. Seamus Hegarty, Mithu Alur, Thousand Oaks: Sage Publications Inc.

6) Karna, G. N. (1999). *United Nations and rights of disabled persons: A study in Indian perspective*. New Delhi: A.P.H. Publishing Corporation.

7) Mani, R. (1988). *Physically handicapped in India*. Delhi: Ashish Publishing House.

8) Mastropieri, M. A., & Scruggs, T. E. (2004). *The inclusive classroom: Strategies for effective instruction*. NY: Pearson.

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V
COMMUNICATION FOR DEVELOPMENT PAPER NO.3
DSE – 07

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

This course will enable the students to

- (1) Know about development communication
- (2) Understanding about innovations and trends in development communication
- (3) To learn about designing media for development communication

Unit 1 Concept of Development Communication

- 1.1 Concept of development, characteristics of developing countries
- 1.2 Measuring development- Indices of measuring development and classification of countries based on development indices
- 1.3 Models of Development- Dominant Paradigm, Basic Needs Model, New Paradigm of development.
- 1.4 Development Communication- concept and genesis, characteristics, differences between communication and Development Communication
- 1.5 Philosophy role and approaches to Development Communication

Unit 2 Understanding Paradigms of Development

- 2.1 Press theories: Normative: Authoritarian, Libertarian, Social, Responsibility, Democratic Participant theory: Sociological: Uses & Gratification. Agenda setting; Two-Step Flow; Psychological: Bullet Theory
- 2.2 Success stories in Development Communication
- 2.3 Innovations and trends in Development Communication

Unit 3 Development Communication and Media

- 3.1 Traditional Media: types, characteristics, role in development communication
- 3.2 Development reporting-roles and responsibilities of a development reporter, ethics in reporting, specialized skills required and issues in development reporting
- 3.3 News reporting: definition of news, ingredients and qualities of news, news value, types of news reports, structure of news reports
- 3.4 Radio news, features and commentaries. Radio and development communication.
- 3.5 Television: Programs and genres; role in development communication.
- 3.6 Cinema: role in development communication.
- 3.7 ICTs: scope in development communication.

PRACTICAL

- 1) Analysis of development indicators – national and international perspectives
- 2) Critical analysis of selected development communication initiatives
- 3) Analysis of media for development communication.
- 4) Designing media for development communication.

RECOMMENDED READINGS

- Narula. Uma (1994) Development Communication, New Delhi, Hariand Publication
- Servaes, Jan (2008). Communication for Development and Social Change. New Delhi. Sage Publication
- Paulo Mefalopulos. Development Communication Sourcebook- Broadening the boundaries of communication, The World Bank, 2008

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V
PROCESS IN APPERAL DESIGN PAPER NO.4
DSE – 08

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

1. To able the students to equip them with techniques
2. Acquaint with the various step involved in the apparel making
3. To improve the skill in garment making
4. Prepare the garment as per measurement using appropriate tool, machine and technique

THEORY

Unit :1 Introduction to body measurement

- 1.1 Meaning of Standard measurement
- 1.2 Standard measuring points of body parts
- 1.3 Eight heads theory

Unit :2 Introduction to pattern making

- 2.1 Methods of pattern making
- 2.2 -Drafting
- 2.3 Paper Pattern
- 2.4 Block Pattern
- 2,5 Lay Out

Unit : 3 Preparatory steps for garment construction

- 3.1 Fabric grain Line.
- 3.2 Layouts for patterns- general guidelines, basic layouts- lengthwise, partial lengthwise, crosswise, double fold, open, combination fold
- 3.3 Spreading, marking and cutting
- 3.4 Layouts for fabrics- Unidirectional, bold and large prints, plaids, stripes and checks, various widths of fabric

Unit :4 Seams and finishing

- 4.1 Type of Seams
- 4..2 Finishes of Seams

Unit : 5 Study of garment components

- 5.1 Classification and application
- 5.2 Types of Sleeve
- 5.3 Types of collars
- 5.4 Types of necklines

5.5 Types of pockets

Unit : 6 Design & Fitting

6.1 Designing for different figure types

6.2 Fitting guidelines

6.3 Fitting Problems

6.4 Fitting Remedies

PRACTICAL

1. Application of different types of Seams
2. Bodice Block – Adult Bodice Block , Child Bodice Block
- 3 Construction of skirt/ Salwer for self
- 4 Construction of top/ kurta for self
- 5 Project Work : Sketch of Sleeves
 Sketch of Collors
 Sketch of Pocket
 Sketch of Neckline

RECOMMENDED READINGS

1. Pattern Making for Fashion Design Armstrong, H.J., 2009, , Harper Collins Publishers Inc., Ney York.
- 2.Evaluating Apparel Quality Stamper, A.A., S. H. Sharp and L.B. Donnell, 1986, , Fairchild Publications, America
- 3.Fitting and Pattern Alteration Liechty, E.G., Potterberg, D.N., Rasband, J.A., 2010, : A Multimethod Approach, Fairchild Publications, New York.

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V
ENTREPRENEURSHIP DEVELOPMENT PAPER NO.5
SEC – 09

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

To enables students to

1. Develop entrepreneurship skill
2. Understand the process and procedure of setting up small enterprise
3. Develop managerial skill for entrepreneurship development.

THEORY

Unit-1

- 1.1 Entrepreneurship development among women
- 1.2 Problems and constraints of women entrepreneurship.
- 1.3 Suggestion to improve working efficiency of entrepreneurship.
- 1.4 Importance and need for self employment.

Unit 2

- 2.1 Quality of good entrepreneur
- 2.2 Establishment of enterprise
- 2.3 Legal aspect and procedure to establish enterprise.

Unit 3

- 3.1 Entrepreneurship programs in India.
 - (A) Entrepreneurship development institute of India (E.D.I.)
 - (B) National Institute for Entrepreneurship and small business development (NIESBI)
 - (C) National Institute development bank of India (SIDBI)
 - (D) Small Industry development organization.
 - (E) National alliance of young entrepreneur.(NAYE)
 - (F) State Bank of India.
 - (G) National small industries corporation National Industry of small Industry extension training (NISIET)
 - (H) Directorates of industries of the state government and state small industries corp.
 - (I) Khadi and village industries commission(KVIC)

- (J) State financial corporation(SFCS)
- (K) Jilla Udyogkendra
- (L) Gujarat agricultural industries.
- (M) Industrial extension board.
- (N) Gujarat industrial and technical consultancy organization.

Unit 4

- 4.1** Putting a project proposal
- 4.2** Application form
- 4.3** Viable project proposal
- 4.4** Processing of proposal
- 4.5** License and quota
- 4.6** Registration security- guarantee retunes.

RECOMMENDED READINGS

1. Parekh U and Rao T.P.1978 – Personal efficiency in developing Entrepreneurship learning system- New Delhi.
2. Parekh U and Rao T.P. – Developing Entrepreneurship a handbook learning system New Delhi.
3. B.S. Rathore & J.S. Saini, B.R. Gurjan – Entrepreneurial opportunities in modernizing economy abhishek publication – Chandigadh.
4. Women and rural Entrepreneurship in Ind. D.D. Sharma, S.K. Dhameha Abhishekh Publication- New Delhi.
5. Indian entrepreneurship theory practice D.D. Sharma, S.K. Dhameha- Abhishekh Publication- New Delhi.

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V
NUTRITION AND FITNESS PAPER NO.6
SEC – 10

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

- 1) Understand the concept of diet and health.
- 2) Know the importance of nutrition.
- 3) Gain knowledge about physical activity and weight management.

UNIT : 1 – Understanding Fitness

- Definition of fitness, health and related terms
- Assessment of fitness
- Approaches for keeping fit.

UNIT : 2 – Importance of nutrition

- Role of nutrition in fitness
- Nutritional guidelines for health and fitness
- Nutritional supplements.

UNIT : 3 – Importance of Physical activity

- Importance and benefits of physical activity.
- Physical Activity – frequency, intensity, time and type with examples.
- Physical Activity – Guidelines and physical activity pyramid

UNIT : 4 – Weight Management

- Assessment, etiology, health complications of overweight and obesity.
- Diet and exercise for weight management
- Fad diets
- Principles of planning weight reducing diets.

RECOMMENDED READINGS

- Wardlaw, Smith Contemporary Nutrition : A Functional Approach. 2nd ed. 2012 Mc. Graw Hill.
- Williams Melvin, Nutrition for health, fitness and sports, 2004 Mc Graw Hill.
- Joshi AS, Nutrition and Dietetics 2010, Tata Mc. Graw Hill

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –VI
INDIAN TRADITIONAL TEXTILE PAPER NO.1
DSE – 09

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

1. Study of textile craft
2. To improve knowledge about Woven, Embroidery, Printed ,Dyed textile
3. Status of Handloom & Handicraft

THEORY

Unit: 1 Study of Textile Crafts of India: with reference to history, production centers, techniques, designs, colours and products

- 1.1 Woven Sari
- 1.2 Benaras Brocades
- 1.3 Jamdanis
- 1.4 Baluchars
- 1.5 Pathani
- 1.6 Chanderi
- 1.7 Kanjivarm
- 1.8 Vichitrapuri
- 1.9 Patpola, Badhni, Laheria

Unit: 2 Woven Shawls

- 2.1 Kashmir
- 2.2 Panjabi
- 2.3 Kachhchi
- 2.4 Arunachal

Unit :3 Embroidered Textiles-

- 3.1 Kanthas of Bengal
- 3.2 Phulkari of Punjab
- 3.3 Kashmiri work of Kashmir
- 3.4 Gujarat embroideries
- 3.5 Shadow work of Lakhaunav

Unit: 4 Painted and Printed textiles

- 4.1 Kalamkari of Andhra pradesh
- 4.2 Dabu printing of Rajasthan
- 4.3 Ajarakh of Gujarat
- 4.4 Ikats of Gujarat
- 4.5 Bandhani of Gujarat

Unit : 5 Evaluation, socio-economic significance and sustenance of textile craft

- 5.1 Khadi unit
- 5.2 Handloom industry
- 5.3 Handicraft sector

PRACTICAL

1. Embroidery stitches of traditional embroideries – Any Three
 - 1) Kanthas of Bengal
 - 2) Phulkari of Punjab
 - 3) Kashmiri work of Kashmir
 - 4) Gujarat embroideries
 - 5) Chikankari of Uttar Pradesh
 - 6) Applique work of Bihar
2. Traditional textile crafts (Power Point Presentation- any one)
3. Collection of Painted/printed Photograph/ Picture
4. Visit to craft centers
 1. Khadi unit
 2. Handloom industry
 3. Handicraft sector

RECOMMENDED READINGS

1. Care and Presentation of Museum projects Agarwal, O.P., 1977, – II, NRL
2. Handicrafts of India, Chattopadhaya, K.D., 1995, Wiley Eastern Limited, N Delhi

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –VI
BASICS OF DESIGN APPLICATION PAPER NO.2
DSE – 10
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

To enable the students to-

- 1) Understand elements principles of Art & Design
- 2) Develop an understanding to the application of art principles in design composition of traditional & contemporary art architecture, textile and interior design.
- 3) Develop skill in creating design and making art object.

Unit 1 Design Fundamentals

- 1.1 Objective of Art & Interior Design.
- 1.2 Type of Design: Structural & Decorative
- 1.3 Elements of content: - Space, Point, Line, Shape, Form Texture, Light & Color
- 1.4 Principles of composition:- Rhythm, Balance, Proportion, Emphasis, Unity

Unit 2 Drawing & Coloring

- 2.1 Composition of drawing of Drawing-Harmony, clarity, Adequacy
- 2.2 Color & its application
- 2.3 Importance of color
- 2.4 Color system & theories
- 2.5 Color Forecasting

Unit 3 Furniture & Furnishing

- 3.1 Furniture Types -Construction, Selection & Purchases, Arrangement, Care & Maintenance
- 3.2 Furnishing Selection, Care & Maintenance of fabric used for,
- 3.3 Soft finishing-Curtains and draperies, upholstered furniture, cushions and pillows etc.
- 3.4 Floor covering

Unit 4 Lighting in Interior

- 4.1 Lighting accessories, selection & Arrangement.
- 4.2 Types of Lamps.

PRACTICAL

- (1) Color combination in different room
- (2) Furniture & Furnishing plan of specific areas.
- (3) Market review about new trend in Furniture.

RECOMMENDED READING

- Laurence M-(1987) Interior Decoration, New Jersey, chart well of Design Mitchell Beazley.
- Riley & Bayen.(2003), The Elements of Design, Mitchell Beazley.

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –VI
ADOLESCENTS RELATIONS AND WELL BEING PAPER NO.3
DSE – 11
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- 1) Student will gain knowledge about the adolescents' relations and well-being.
- 2) Students will gain knowledge about development of adolescent.
- 3) To impart skill and knowledge about the adolescent problems and remedies for them.

THEORY

Unit : 1 Adolescent

- Introduction and concept of adolescent
- Transitional period- middle childhood and youth
- Characteristic of adolescent period
- Development task of adolescent

Unit :2 Developments of Adolescent

- Puberty- Physical development (Sexual maturity)
- Psychological response
- Social development/ social relation : parents , siblings, peers, friendship ,interpersonal relation
- Emotion Maturity
- Cognitive development – reasoning power/wisdom, thinking , judgment/Decision power ,morality

Unit :3 Related Issues of adolescent

- Problems of adolescent
- Identity and self development
- Importance of yoga in life
- Counseling

PRACTICAL

1. Class room exercise on peer relationships
2. Understanding self as a male/female adolescent: exercise on self-reflection
3. Writing a brief biography of relationship with a close friend
4. Relations with parents and siblings- separate interviews
5. Analysis of different forms of media to understand interpersonal relationships
6. Workshops- managing emotions with reference to relationships and to learn crisis management
7. Methods of promoting well-being- yoga, self-development resources, counseling

RECOMMENDED READINGS

- Manthei, R. (1997). *Counselling: The skills of finding solutions to problems*. London: Routledge.
- Sharma, N. (2009). *Understanding Adolescence*, New Delhi: National Book Trust.
- Rice, F. P. (2007). *Adolescent: Development, Relationships and Culture*.
- Santrock, J. W. (2010). *Life Span Development: A Topical Approach*, New Delhi: Tata

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –VI**NGO MANAGEMENT PAPER NO.4****DSE – 12****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) To know about the role of development communicator in developing NGO
- 2) To teach students how to start NGO.
- 3) To understand about NGO Management

Unit 1 Concept of NGO

- 1.1 Meaning of NGO and GO
- 1.2 Difference between Government Organizations and NGO
- 1.3 Characteristics of good NGO
- 1.4 Structure of NGO
- 1.5 Function of NGO
- 1.6 Historical Perspective of NGO
- 1.7 Advantages of NGO
- 1.8 Present status of NGO
- 1.9 Contribution of NGO in the Development
- 1.10 Role of Development Communicator in developing NGO

Unit 2 Starting of NGO

- 2.1 Steps for starting NGO
- 2.2 Registration of NGO
- 2.3 Selection of Personnel
- 2.4 Training of Personnel
- 2.4 Proposal writing under NGO
- 2.5 Identifying Funding agencies
- 2.6 Resource Mobilization
- 2.7 Planning, Implementation and Evaluation strategy under NGO
- 2.8 Documentation
- 2.9 PR in NGO

Unit 3: NGO Management

- 3.1 Organizational types and structures
- 3.2 Managing people and teams in NGOs
- 3.3 NGO management competencies
- 3.4 Applying NGO principles and values
- 3.5 Accountability and impact assessment for NGOs

Unit 4 Problems of NGO

- 4.1 Training
- 4.2 Recruitment
- 4.3 Funding
- 4.4 Resource Mobilization
- 4.5 Documentation

PRACTICAL

1. Visit of Local NGO
2. Studying the Annual report of NGOs
3. Studying the ongoing Activities
4. Studying the problems

PROJECT WORK

Visit/or invite to any one NGO/worker and collect the information about :How to start NGO and which procedure is require for its registration and other documentations ,and need of many more details .

RECOMMENDED READINGS

- 1) S. Chandra, Guidelines for NGO Management in India (2003), Published by Kanishka Distributors, New Delhi
- 2) D. Lewis, Management of Non Governmental Development Organization (2001), Second Edition, Published by Routledge, Newyork.
- 3) A. Abraham, Formation and Management of NGOs (2003), Third Edition, Published by Universal Law Publishing Co. Pvt Ltd., New Delhi.
- 4) Sundar, P. 2013, Business and Community: The Story of Corporate Social Responsibility in India , New Delhi, Sage Publication.
- 5) Aggarwal, S.2008, Corporate Social Responsibility in India,

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –VI**NUTRITION HEALTH COMMUNICATION PAPER NO.5****SEC – 11****(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)****OBJECTIVES**

- 1) Understand the concept of communication in nutrition health.
- 2) The student will know about NHC.
- 3) Students gain knowledge about Government programs, NGOs for nutrition, health and communication.

UNIT I : Concepts and Theories of Communication in Nutrition – Health

- 1.1 Definitions of concepts
- 1.2 Formal – non-formal communication, Participatory communication
- 1.3 Theories of NHC
- 1.4 History, need and relevance of NHC in India

UNIT II : The Components and Processes of NHC

- 2.1 Concept of Behavior Change Communication (BCC) from imparting information to focusing on changing practices.
- 2.2 Components of BCC : Sender, Message, Channel, Receiver
- 2.3 Various types of communication – interpersonal, mass media, visual, verbal/ non-verbal,
- 2.4 Features of successful BCC
- 2.5 Market Research and Social Marketing

UNIT III: Programs and Experiences of NHC global and Indian perspective

- 3.1 NHC in developed and developing nations: some examples
- 3.2 Evolution of NHC in India: traditional folk media to modern methods of communication.
- 3.3 Traditional folk media in Gujarat and its influence on NHC.
- 3.4 Communication for urban and rural environment; for target specific audience.

UNIT IV : Nutrition – Health – Communication in Government Programs and NGOs

- 4.1 Evolution of NHC/IEC in Government nutrition health programs – shift in focus from knowledge gain to change in practices.
- 4.2 Overview of NHC/IEC in government programs (Activities, strengths and limitations)
 - a. NHC in ICDS
 - b. Nutritional counseling in micronutrient deficiency control programs:

control of IDA, IDD, VAD.

4.3 Strengths and limitations of NHC imparted in NGO programs

LEARNING ACTIVITIES

1. Visit to an ongoing NHC program in ICDS: one rural, one urban. (eg; *matru mandal* meeting or *mahila mandal* meeting or nutrition week celebration.
2. Visit to a health centre (ANC clinic run by Government health department and observe quality of counseling imparted to pregnant women (especially awareness of anemia, importance of IFA). [All the above will be accessed by the students for the plus and minus points from the NHC perspective].
3. Visit to Mamta Day (one rural one urban) and observe quality of counseling being given to pregnant and lactating women, mothers of preschool children, use of Mamta card and other aspects.
4. To visit an NGO either rural or urban and observe one NHC program implemented for women, school children or adolescence (For all the above observation appropriate observing check lists will be made and used)
5. Improving the NHC-To conduct brief interviews with service providers in all the above programs and to compare the observations, discuss the strength and weakness of the NHC activities carried out.
6. Based on the above observations and interviews
 - a. To design and plan NHC sessions on a specific nutrition topic for any vulnerable group: children, adolescents, women taking into account all components of NHC.
 - b. Submit the visual, the script of the session : Hindi / Gujarati, the communication strategy and evaluation plan.
 - c. To implement one NHC session in the field and evaluate it as per guidelines provided.

RECOMMENDED READINGS

- Field guide to designing communication strategy, WHO publication-2007.
- Behaviour change consortium summary (1999-2003) www.od.nih.gov/behaviourchange
- Communication strategy to conserve/improve Public Health., John Hopkins University – Centre for Communication programmes.
- Michael Favin and Marcia Griffiths 1999, Nutrition tool kit-09-Communication for Behaviour change in Nutrition projects. Human Development Network-The World Bank-1999
- Harvard Institute of International Development (1981) Nutrition Education in Developing Countries, New York: Oelgeschlager Gunn and Hain Publishers Inc.
- Hubley J (1993) Communicating Health, London: Teaching Aids at Low Cost, London, UK.
- Academy for Educational Development (1988), Communication for Child Survival, AED, USA.
- Facts for life (1990), A Communication Challenge. UNICEF / WHO / UNESCO / UNFPA, UK.

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –VI**MICROBIOLOGY PAPER NO.6****SEC – 12****(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)****OBJECTIVES**

- 1) Gain deeper knowledge of role of micro-organisms in human and environment.
- 2) Understand the importance of micro-organisms in food spoilage and to learn advanced techniques used in food preservation.
- 3) Understand the criteria for microbiological safety in various food operations to avoid public health hazards due to contaminated foods.

Unit I: Microbiology: Its history and economic importance

Scope of microbiology

1. Discovery of bacteria and virus
2. Contribution of various scientists in establishment of microbiology as a discipline
 - a. Theory of spontaneous generation of life
 - b. Germ theory of fermentation and decay
 - c. Germ theory of disease

Unit II: Bacteria, yeast, mold and virus

Morphological details

1. Reproduction
2. Requirements for growth
3. Types of media and conditions of incubation
5. Classification and nomenclature

Unit III: Microscopy and Control of Micro Organism**1. Microscopy****2. Sterilization method Physical and Chemical****Unit IV FOOD SAFETY AND TOXICOLOGY**

- Microbiological Examination of Food

Naturally occurring toxicants and food contaminants

Microbial problems in food safety including Mycotoxins and Viruses

Environmental, pesticide residue and food additives

Safety aspects of foods produced by biotechnology and genetic engineering

Unit V METHODS OF ISOLATION AND DETECTION

- Isolation and detection of micro – organisms in food
- Conventional method
- Rapid methods
- Immunological methods – Fluorescent, antibody, radioimmunoassay, ELISA
- Chemical method

Unit VI : Immunity

1. Types of Immunity

RECOMMENDED READINGS

1. Food Microbiology – Frazier W.C.and Westhoff D.C.McGrawHill Inc.Ltd.
2. Modern Food Microbiology – Jay James M. Van Nostrand Reinhold Company Inc.
3. Peleczar and Reid – Microbiology McGraw-Hill Book Company New York

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-V**BIOCHEMISTRY - 1 PAPER NO.1****DSE – 05****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****FOCUS**

The course lays the foundation for understanding the functioning of metabolic processes at cellular level and the role of various nutrients in these processes.

OBJECTIVES

This course will enable students to -

1. Develop an understanding of the principles of biochemistry (as applicable to human nutrition)
2. Obtain an insight into the chemistry of major nutrients and physiologically important compounds.
3. Understand the biological processes and systems as applicable to human nutrition.
4. Apply the knowledge acquired to human nutrition and dietetics.

UNIT 1 CARBOHYDRATES

- Definition
- Physical and chemical properties of carbohydrates
- D & L form
- Stereoisomerism – Optical activity
- Ring structures
- Reactions of monosaccharide
 - A. Osazone formation
 - B. Oxidation reaction
 - C. Reduction reaction
- Amino sugars
- Structure of mucopolysaccharides and glycoproteins

UNIT 2 PROTEINS AND AMINO ACIDS

- Classification and structure of amino acids
- Physical and chemical properties of amino acids
 - A. salt formation
 - B. Ester formation
 - C. Color reaction of amino acids and proteins

UNIT 3 LIPIDS

Fatty Acids

- Classification of fatty acids
- Physical and chemical properties of amino acids
- Hydrogenation
- Halogenation
- Oxidation
- Biological oxidation

Fats

- Physical and chemical properties of fats
- Hydrolysis
- Saponification
- Acetylation
- Rancidity
- Acid number
- Iodine number
- Acetyl value

Some Important Steroids

- Cholesterol
- Ergo sterol
- Sphingosine
- Bile salts

Unit: 4 Homeostasis

1. Concept of Homeostasis.

Role of Body System in maintaining Homeostasis

PRACTICALS

1. Cole's method – Glucose, Lactose
2. Acid value
3. Iodine value
4. Glucose estimation by DNSA method
5. Protein estimation by Folin-Wu method
6. Preparation of casein from milk
7. Preparation of standard solution

REFERENCE BOOKS

1. Biochemistry - Powar and Chatwal 4th Edition (2000) Himalaya Publishing House Bombay.
2. Outlines of Biochemistry – E.C.Conn and P.K.Stumph (1995) John Willey & Sons, Replika Press Ltd. Delhi.
3. Harper's Illustrated Biochemistry – R.K.Muray, D.K. Gramner, P.A.Mayes, and V.W.Rodwell (2003) McGraw-Hill Publication.
4. Instant Notes Biochemistry – B.D.Hames & N.M.Hooper 2nd Edition (2003) Viva Books Pvt. Ltd. New Delhi.
5. Biochemistry – Stryer Freeman W.H. & Co.
6. Text Book of Biochemistry – West & Todd Amerind Publishing Co.Pvt.Ltd.
7. Sundararaj P. and Siddhu A. - Qualitative tests and Quantitative Procedure in Biochemistry – A Practical Manual Wheeler Publishing

T.Y.B.H.Sc. (MAJOR – FOODS & NUTRITION) SEMESTER-V**DIETETICS – 1 PAPER NO.2****DSE – 06****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVE**

- 1) To understand the role of diet therapy.
- 2) Classify therapeutic diets and adaptation of normal diet
- 3) Learn the different modes of feeding
- 4) To gain knowledge on the dietary modifications for various diseases.
- 5) To acquire the ability to plan and prepare diets for various diseases.
- 6) Learn the assessment of patients' need, counseling, education of the patient and follow-up

THEORY**Unit: 1. INTRODUCTION**

1.1 Application of the principles of diet therapy

1.1.1 Tips for diet prescription

1.1.2 Dietetic care in hospital patients.

1.1.3 Team approach to health care & Role of Dietitian in the hospital & community

1.1.4 Assessment of patient needs

1.2 Modes of feedings

1.2.1 Enteral

1.2.2 Tube Feeding

1.2.3 Composition of tube feeds and their preparation

1.2.4 Parenteral feeding : Indication for use

Unit 2. Risk factors for Chronic Degenerative Disorders

2.1 Diet for healthy living

Unit 3.

1.1 Dietary Management in febrile conditions, infections and HIV

1.2 Diet and surgery – Pre Operative and Post Operative nutrition

Unit 4 Etiology, Diagnosis and Dietary Management of obesity and underweight

4.1 Obesity

- 4.1.1 Types and causes of obesity, prevention and treatment
- 4.1.2 Criteria for obesity and overweight.
- 4.1.3 Dietary management of obesity, types of diet and desirable rate of loss of weight

4.2 Underweight

- 4.2.1 The problem of underweight
- 4.2.2 Definition, etiology and assessment
- 4.2.3 Anorexia nervosa , bulimia
- 4.2.4 Dietary Management

Unit 5. Etiology, Diagnosis and Dietary Management of common Gastro intestinal disturbances

- 5.1 Constipation
- 5.2 Diarrhoea
- 5.3 Peptic Ulcer
- 5.4 Ulcerative Colitis

Unit 6. Etiology, Diagnosis and Dietary Management of Anaemia

- 6.1 Nutritional Anaemia
- 6.2 Sickle cell Anaemia
- 6.3 Megaloblastic Anaemia
- 6.4 Pernicious Anaemia
- 6.5 Anaemia due to acute haemorrhages etc

Unit 7. Etiology, diagnosis and Dietary Management of Diabetes Mellitus

- 7.1 Type / Classification, symptoms and diagnosis
- 7.2 Role of diet in the management of various types of diabetes mellitus and preparation of diet plans (clinical V/s chemical control)
- 7.3 Secondary complications of diabetes mellitus and its control
- 7.4 Tests used for diagnosing and monitoring diabetes mellitus including glucose monitoring at home.
- 7.5 Names of tests used for diagnosing and monitoring diabetes mellitus
- 7.6 Insulin therapy, oral hypoglycemic control
- 7.7 Role of diet
- 7.8 Diabetes in pregnancy, surgery, illness
- 7.9 Diabetic coma, insulin reaction
- 7.10 Use of sweet alternatives, their composition and contra indications.
- 7.11 Patient education and counseling

Unit 8 Etiology, Diagnosis and dietary management of Liver Disorders

- 8.1 Liver functions - normal and deranged
- 8.2 Role of diet in liver health
- 8.3 Liver function tests and nutritional care in liver diseases
- 8.4 Viral hepatitis
- 8.5 Cirrhosis
- 8.6 Alcoholic liver diseases
- 8.7 Cholecystitis, Cholelithiasis, Pancreatitis

Unit 9 Dietetic Techniques and Patient Counseling

- 9.1 Dietitians as part of the medical team and outreach services
- 9.2 Medical history assessment-techniques of obtaining relevant information for patient profiles
- 9.3 Dietary diagnosis and tests for nutritional status-Correlating clinical and dietary information
- 9.4 Patient education and counseling-assessment of patient needs, establishing rapport, counseling relationship, resources and aids to counseling.
- 9.5 Aesthetic attributes of diets.
- 9.6 Follow up visits and patients' education.

PRACTICALS

- 1) Prepare of List of foods rich in protein, fats, fiber sodium, calcium phosphorus, oxalic acid in each food exchange.
- 2) List of foods rich in cholesterol SFA, PUFA AND MUFA
- 3) Glycemic Index of food
- 4) Planning and preparation
 - a. Clear liquid diet
 - b. Full liquid diet
 - c. Soft diets
 - d. Tube feeding
- 5) Planning and preparation of diets for
 - a. Typhoid
 - b. Patient with tuberculosis
 - c. Patient with HIV infection
- 6) Planning and preparation of diets for
 - a. Underweight
 - b. Obesity

- 7) To plan and prepare diets for
 - a. Constipation
 - b. Diarrhoea
 - c. Peptic Ulcer
 - d. Ulcerative Colitis
- 8) Plan & prepare diet in
 - a. Nutritional Anaemia
 - b. Megaloblastic Anaemia
- 9) Planning, Preparation and calculation by use of exchange list for
 - a. Diabetes Mellitus
 - i. Normal Weight
 - ii. Pregnancy
 - b. Liver Disorder
 - i. Hepatitis
 - ii. Cirrhosis of liver with ascites

RECOMMENDED READINGS

1. Robinson C. H. – Normal and therapeutic Nutrition, The Oxford Uni. Press.
2. Williams S.R. – Nutrition and Diet Therapy, V.C. Mosby Co.
3. Anita F.P. –Clinical Nutrition and Dietetics, The Oxford Uni. Press.
4. Krause M.V. and Hinster M.- Food, Nutrition and Diet Therapy, W.B. Saunders
5. Vaid B. M. - Diet Therapy, Saurashtra University
6. Vaid B. M. - Therapeutic Nutrition, Saurashtra University
7. Vaid B. M – Dietetics, Saurashtra University

T.Y.B.H.Sc. (MAJOR – FOODS & NUTRITION) SEMESTER-V**FOOD SCIENCE – 1 PAPER NO.3****DSE – 07****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) To impart knowledge pertaining to the basic properties of food.
- 2) To provide basic understanding of principles behind food and also with processing technology used for different foods.
- 3) Understand the application of science principles to experimental study of foods.
- 4) Develop food preparations and evaluate by sensory methods.
- 5) Select food to meet your requirements both in terms of food quality as well as cost.
- 6) Identify the different types of energy giving, body building and regulatory foods available in market.

THEORY**Unit: 1 Food acceptability**

Appearance factors, kinesthetic factor and flavor factor, judged by sensory organs.

Unit: 2 Sensory evaluation of food

Definition, practical requirement for conducting sensory test, classification of sensory methods, difference tests.

Unit: 3 Unconventional foods

Soybean, ragi, unconventional leaves, mushroom, spirulina, oats, barley

Unit:4 Energy giving foods

4.1 Cereals: Selection of cereals and millets. Nutritional factor in selection of cereals.

4.1 a) Wheat- types, structure, composition and milling. Products of wheat (whole flour, bread flour, self raising flour, all purpose cake flour, maida, semolina), macaroni products.

4.1 b) Rice-Composition and parboiling.

4.2 Roots and tubers: Selection of roots and tubers.

4.3 Fats and oils : Selection of fats and oils: Nutritional importance of fats and oils,
Functions of fats and oils.

4.4 Sugar, jaggery and other sweetening agent:

Selection of sugar, jaggery and other sweetening agents. White crystalline sugar,

cube sugar, brown sugar, liquid sugar glucose, jaggery, honey and saccharine related products, Indian chikki.

PRACTICALS

1 Sensory Evaluation by Difference Tests –

- a. Paired Comparison Test
- b. Triangle Test
- c. Duo-Trio Test

2 Preparation of Unconventional food (one preparation each).

- a. Soybean product
- b. Unconventional leaves
- c. Ragi & Oats products

3 Selecting,preparing and serving items from current restaurant menus.

(one preparation each).

- a. Wheat
- b. Rice
- c. Roots & tubers
- d. Sugar & Jaggery
- e. Fats & oils

RECOMMENDE READINGS

- 1) N Shukuntala Manay, M. Sadaksharaswamy, "Foods –Facts and Principles.
- 2) M Swaminathan "Food Science and Experimental Food."

- 3) Peckham G C. "Foundation of Food Preparation" The Mcmillan Co. 1962
- 4) Norman P N "Food Science" The A V I Publishing Co. 1982
- 5) Charley H "Food Science" John Wiley and Sons 1982
- 6) Griswold RM "The Experimental Study of Foods" Houghtan Migglin Co. 1962
- 7) Lowe B "Experimental Cookery" John Wiley and Sons.1965
- 8) ANC-1 Nutrition for the Community- Practical manual Part-1 IGNOU.
- 9) ANC-04 IGNOU.
- 10) CCCD-02 IGNOU.
- 11) Srilaxmi- Food Science.

T.Y.B.H.Sc. (MAJOR – FOODS & NUTRITION) SEMESTER-V

COMMUNITY, HEALTH AND NUTRITION PAPER NO.4

DSE – 08

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

- 1) To orient students to the basic principles of community nutrition
- 2) To acquire knowledge regarding the recent theories and components of communication as relevant to nutrition health
- 3) To learn about Nutrition-Health-Communication (NHC) programmes and experiences in the developing world of India
- 4) To gain skills in planning and conducting NHC projects

THEORY

Unit – I Demography and Vital statistics

1.1 Demographic profile

1.2 Vital statistics of developed and developing countries

Unit II Introduction to assessment of nutritional status

2.1 Direct Parameters

2.1 a) Anthropometry

- i. Concepts, methods, advantages and disadvantages and interpretations. Weight, height, BMI, MUAC, Head & chest circumference, SFT, Waist / Hip ratio. Classifications – Gomez, water low, IAP etc
- ii. Various standards for reference for different age groups
- iii. Use of growth charts

2.2 b) Diet Surveys

- i. Family food questionnaire and record procedure
- ii. Weighed food inventory
- iii. Recipe method
- iv. Weigh as you eat
- v. Food composite analysis method
- vi. Food diaries and others

▪ **Adult consumption unit**

2.3 Clinical assessment

2.4 Biochemical estimations, their estimations and critique

2.5 Indirect Parameters

- I. Socio-economic status

- II. Morbidity Rates,
- III. Mortality Rates(IMR, NMR, MMR, CDR, CBR)

Unit – III

3.1 Nutrition and Health Programmes in India

- a) National Flourosis control Programme
- b) National Calcium supplementation Programme
- c) Pradhan Mantri's Gramodaya Yojana (PMGY)
- d) Balwaadi Feeding Programme
- e) Antyodaya Anna Yojana (AAY)
- f) Annapurna Scheme

3.2 National organizations in community Nutrition and Health – ICAR, NIN, CFTRI

3.3 International Organizations in Community Nutrition and Health--- FAO, WHO, UNICEF, CARE.

Unit – IV Communication media useful in Nutrition & Health Education.

- 4.1 Media
- 4.2 Film
- 4.3 Audio tapes
- 4.4 Audio Visual aids
- 4.5 Leaflet, Pamphlet, Folder
- 4.6 Poster
- 4.7 Chart
- 4.8 Scriptwriting & Puppets.

PRACTICALS

- 1 Diet Survey
 - a. Assessing the frequency of consumption of various foods in the community.
 - b. Survey of food habits of various communities viz between rural and urban of ethnic groups of different socio-economic groups
- 2 Anthropometric measurements for children in poor and affluent or urban and rural groups comparisons with the standards and interpretations

- a. Weight b. Height c. BMI d. waist/hip ratio e. MUAC
- 3 Understanding clinical signs and symptoms of various nutritional disorders
 - a. Visit to the corporation schools
 - b. Visit to the pediatric ward in the civil hospital
- 4 Visit to the various community based programmes focused on health and nutrition and conduct interviews with
 - a. Organizations and service providers
 - b. Beneficiaries regarding participation and its impact
- 5 Planning and demonstration of low cost nutritious recipes under nutrition education for
 - a. Preschoolers
 - b. School going child
 - c. Adolescent boy & girl
 - d. Pregnant woman
 - e. Nursing woman

Project Work

Plan a nutritional education program by using different types of visual tools in the community for any vulnerable group

Select any one vulnerable group e.g.

- a) Pregnant / Lactating women [Knowledge practices (pre-post) effectiveness
- b) Infants – Knowledge to mothers e.g
 - i) Breast feeding vs bottle feeding
 - ii) ORS
 - iii) Weaning foods
 - iv) Importance of colostrum
- c) Adolescent Girls
 - Anaemia
 - Iron and folic acid rich recipes
- Note : These are just examples. The students can work on any other related topic

RECOMMEDED READINGS

- Gibson(1992) Principles of nutritional assessment, New York, Oxford University Press

- Gopalan C (1989) Combating undernutrition – Basic issues and practical approaches. New Delhi, Nutrition foundation of India
- Gopaldas T., Sheshadri S. (1989) Nutrition Monitoring and Assessment, New Delhi Oxford University Press.
- Jlliffie DB and Jelliffe EP (1980) Community Nutritional Assessment Oxford University Press New Delhi
- Food and Nutrition Board(1995) National Plan of Action on Nutrition, Department of Women and Child Development, Ministry of HRD, Govt of India
- IGNOU - DNE – 2 Block – 6
- IGNOU DNE -3 Block – 6
- IGNOU DNE -3 Block – 2
- IGNOU DNE -2 Block – 6
- IGNOU Public Health Nutrition
- Preventive and Social medicine by Park & Park 21st Edition

T.Y.B.H.Sc. (MAJOR – FOODS & NUTRITION) SEMESTER-V**FOOD PROCESSING AND SAFETY PAPER NO.5****SEC – 09****(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)****Objectives**

- 1) To make the students understand the importance of food additives and fortification.
- 2) To gain knowledge of food packaging and convenience food
- 3) To orient student to food safety laws and standards

Theory**Unit–1Food Additives**

- 1.1 Meaning
- 1.2 Classification of additives

Unit–2Food Fortification

- 2.1 Purpose and meaning of food fortification
- 2.2 Different fortified foods available in market

Unit-3 Food Packaging

- 3.1.1 Types and importance of food packaging
- 3.1.2 Material used for packaging
- 3.1.3 Qualities of packaging materials

Unit – 4Convenience Foods

- 4.1 Types of convenience foods
- 4.2 Advantages and disadvantages
- 4.3 Extruded food

Unit – 5 Vinegar preparation

- 5.1 Types of vinegar
- 5.2 Yeast used for vinegar preparation
- 5.3 Method of preparation

Unit-6 Food safety law and food standards

- 6.1 Special responsibilities as to food safety
- 6.2 Responsibilities of the food business operator
- 6.3 Designated Officer
- 6.4 Powers & liability of food safety officer
- 6.5 General provision relating to penalty

RECOMMENDED READING

1. G. Subbulakshmi – Shobha A. Udipi, “Food Processing and Preservation”, New Age International Publisher.
2. Girdharilal, G.S. Siddappa – G.L. Tandon, Preservation of Fruits and Vegetables.
3. M. Swaminathan, “Food Science, Chemistry and Experimental Foods”.
4. B. Lakhtariya – “Food Safety and standard act 2006 with food safety and standard rules, 2011”. The new Gujarat Law house Ahmedabad.

T.Y.B.H.Sc. (MAJOR – FOODS & NUTRITION) SEMESTER-V**PHYSIOLOGY PAPER NO.6****SEC – 10****(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)****OBJECTIVES**

The course will enable students to

1. Advance their understanding of scope of the relevant issues and topics of human physiology.
2. Enable the students to understand the integrated function of all systems and the grounding of nutritional science in physiology.
3. Understand alterations of structure and function in various organs and systems in disease conditions.

PRACTICAL

1. Study of microscope and its parts
2. Preparation of smear and identification of blood cell.
3. Blood group and Rh. Factor
4. Demonstration of Barr Body
5. Estimation of Hemoglobin.
6. Total count of WBC and RBC
7. Differential count of WBC
8. Measurement & comparison of blood pressure (After Exercise, During rest)
9. Abnormalities of urine Urine analysis sugar, protein, bile salt and ketone bodies.
10. Measurement & comparison of body temperature and pulse rate (After Exercise, During rest)
11. Pregnancy test
12. Study of permanent slides different organs of System - Digestive, respiratory, circulatory, reproductive, endocrine, nervous
13. Report of lecture/visit to diagnostic center.

REFERENCE BOOKS

1. Human physiology – C.C.Chatterjee
2. Human Physiology – Agrawal
3. Text book of Medical Physiology – Guyton

4. Essentials of Medical physiology- K. Sembulingam, prema Sembulingam
-Essentials of Medical Physiology- By- K Sembulingam ; Prema Sembulingam
Jaypee Brother Medical Publishers ltd
- Essentials of Medical Physiology- Guyton sanders, Oxford University, London
- Human Physiology-By C.B. Fox

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-VI**BIOCHEMISTRY - 2 PAPER NO.1****DSE – 09****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

This course will enable the students to:

1. Understand the mechanism adopted by the human body for regulation of metabolic pathways.
2. Get an insight into interrelationship between various metabolic pathways.
3. Understand integration of cellular level metabolic events to nutritional disorders and imbalances.

Unit: 1 Digestion and Absorption in Gastrointestinal Tract

1. Digestion of various Food
 - a. Digestion of carbohydrates
 - b. Digestion of Protein
 - c. Digestion of lipids
2. Absorption in small intestine
 - a. Absorption of water
 - b. Absorption of ions
 - c. Absorption of nutrients
3. Absorption in the large intestine
4. Factors affecting secretion of digestive juice

Body temperature regulation – heat production and heat loss

UNIT: 2 INTRODUCTION TO METABOLISM &

- General principles of metabolism
- Integration of metabolism
- Errors in metabolism

UNIT 3 CARBOHYDRATE METABOLISM

- Carbohydrate metabolism
- Reactions & energetic of
 - A. Glycolysis_Aerobic and anaerobic
 - B. Krebs Cycle
 - C. Electron Transport Chain
 - D. Oxidative Phosphorylation

UNIT 4 PROTEIN METABOLISM

- Transamination
- Deamination (Oxidative)
- Decarboxylation
- Urea cycle
- Protein synthesis.

UNIT 5 LIPID METABOLISM

- B - Oxidation of saturated fatty acid and it's energetic.
- Metabolism of ketone bodies and ketosis

UNIT 6 ENZYMES

- Importance and specificity.
- Chemical nature
- Classification and nomenclature
- Enzyme kinetics (factors affecting enzyme action)
- Coenzymes and isoenzymes.
- Inhibitors
- Clinical importance of enzymes.

PRACTICALS

1. Effect of pH on amylase activity
2. Effect of Temperature on amylase activity.
3. Preparation of potato starch and estimation by Cole's or DNSA method
4. Estimation of calcium
5. Estimation of chloride
6. Estimation of iron.

RECOMMENDED READINGS

1. Biochemistry by Lehninger
2. Biochemistry by Harper
3. Biochemistry by West and Todd
4. Biochemistry by Conn and Stumph
5. Biochemistry by Stryer

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-VI**DIETETICS – 2 PAPER NO.2****DSE – 10****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) To understand the applications of principles of diet therapy
- 2) Plan and prepare diets for different diseases
- 3) To understand and use functional foods in diet therapy

Unit 1. Etiology, Diagnosis and Dietary Management of**1.1 Hypertension**

- 1.1.1 Types, role of diet in the management of various types of hypertension
- 1.1.2 Consequences and complications of hypertension
- 1.1.3 Lifestyles change and behavior modification in hypertension
- 1.1.4 Use of salt alternatives, their composition and contraindications

1.2 Atherosclerosis / Ischemic heart diseases

- 1.2.1 Types and risk factors
- 1.2.2 Role of diet
- 1.2.3 Diet after bypass surgery and heart attack
- 1.2.4 Prevention : control of risk factors and lifestyle changes

Unit 2. Etiology, diagnosis and dietary management of renal disorders

- 2.1 Renal functions : normal and deranged Diagnosis : names of renal function tests
- 2.2 Glomerulonephritis
- 2.3 Nephrotic Syndrome
- 2.4 Acute and chronic renal failure
- 2.5 Dialysis/ Renal transplant
- 2.6 Renal calculi

Unit 3. Etiology, diagnosis and Dietary Management

3.1 Cancer, types and etiological factors

- 3.1.1 Role of diet in prevention of all types of cancers
- 3.1.2 Nutritional management of cancer patients undergoing
- 3.1.3 Radiotherapy
- 3.1.4 Chemotherapy
- 3.1.5 Diet to be followed after treatment
- 3.1.6 Cachexia

3.2 Side effects of cancer therapy and suggested diet modifications

Unit 4 Some special conditions requiring nutritional support

- 4.1 Bone disorders
- 4.2 Allergy
- 4.3 Burns : Nutritional management
- 4.4 Metabolic disorder : Diseases of the adrenal cortex, thyroid and parathyroid glands, gout, spontaneous hypoglycemia, phenylketonuria

Unit 5. Therapeutics food products : Definition, types, need

PRACTICALS

1) Planning, preparation and calculation by use of exchange list for :

- a) Cardiovascular disease
 - i. Hypertension
 - ii. Atherosclerosis
 - iii. Diet for a patient after heart attack
 - iv. Diet for a patient after bypass surgery
- b) Renal disorders
 - i. Diet for acute nephritis
 - ii. Diet for chronic renal failure
 - iii. Diet for a patient on dialysis
 - iv. Diet for renal calculi

- c) Cancer :
 - i. Oral diet for Cancer patients
 - ii. Tube feeding for cancer patients
- 2) Diet in metabolic disorders
 - a) Gout
 - b) Hypothyroidism
 - c) Hypoglycemia
 - d) Phenylketonuria
- 3) Plan and prepare recipes from Therapeutic food products.
- 4) Case study :
 - b) Select any one patient and record the diagnosis, laboratory findings and detailed dietary and clinical history
 - c) Write down the steps in counseling and formulate a new diet for the diagnosed disease
 - d) Prepare a report and do a formal presentation

RECOMMENDED READINGS

1. Anderson, Dibble, Tukki, Mitchell, Rynbergen – NUTRITION IN HEALTH AND DISEASE, 17TH Edi, J.B. Lippincott Co. USA.
2. B. Srilakshmi – DIETETICS, 3rd Edi, New Age International (P) Ltd. Publisher, New Delhi
3. Carol West Sutor, Merriyl Forbes, Crowley – Nutrition – Principles and application in Health Promotion, 2nd Edi J.E Lippincott Co. Philadelphia
4. Clifford R Anderson – MODERN WAYS TO HEALTH, Southern Publishing Association, Nashville Tennessee.
5. Corinne H Robinson, Marilyn R Lawler – Normal and Therapeutic Nutrition, 17th Edi Oxford and IBH Publishing Co., New Delhi
6. Dr. R. Kumar, Dr. Meenal Kumar – Guide To Healthy Living, Deep and Deep Publications Pvt. Ltd., New Delhi.
7. FOODS THAT HARM FOODS THAT HEAL Reader's Digest Association Ltd., 2001

8. F.P. Antia and Philip Abraham – Clinical Dietetics and Nutrition, 4th Edi, Oxford University Press, New Delhi
9. Kathleen Mahan, Sylvia Stamp – Food, Nutrition and Diet Therapy – 11th Edi, W.B. Saunders Co., Philadelphia
10. M. Swaminathan – ESSENTIALS OF FOODS AND NUTRITION, Bappco, Bangalore
11. Mini Sheth, Swati Parnami, Ruch Vaidya, Role of Prebiotics in Health and Diseases, Scietific Reports Series No. 8, UGC/DSA Program of F.N. Department, M.S. University, Baroda
12. Peggi S. Standfield and Y.H. Hui NUTRITION AND DIET THERAPY – SELF INSTRUCTIONAL MODULES, 4TH Edi W.B. Saunders Co., Philadelphia
13. Shubhangini A. Joshi – NUTRITION AND DIETITICS, TATA Mc Graw Hill Publishing Co., Ltd New Delhi
14. S.R. Williams – ESSENTIALS OF NUTRITION AND DIET THERAPY, 5TH Edi, Times Mirror / Mosby College Publishing, Boston.
15. SOME THERAPETUTIC DIETS, NIN, Hyderabad
16. Vaid B. M. - Diet Therapy, Saurashtra University
17. Vaid B. M. - Therapeutic Nutrition, Saurashtra University

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-VI**FOOD SCIENCE PAPER NO.3****DSE – 11****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 1) To impart knowledge pertaining to the basic properties of food.
- 2) To provide basic understanding of principles behind cooking foods and also with processing technology used for different foods.
- 3) Understand the application of scientific principles to experimental study of foods.
- 4) Develop food preparation and evaluate by sensory methods.
- 5) Select food to meet your requirements both in terms of food quality as well as cost'
- 6) Identify the different types of energy giving, body building and regulatory foods available in market.

THEORY**Unit -1 Colloidal System in Foods**

- 1.1 Definition - Difference between colloid , suspension and solution.
- 1.2 Types of colloidal dispersion ,properties of colloidal dispersion.
- 1.3 Dispersion of substances in food preparation .

Unit - 2 Evaluation of food by Objective methods**2.1 Classification**

2.2 Objective methods of assessing food qualities such as chemical methods , physico - chemical methods , microscopical examination , microbiological examination , assessment of textural characteristics of foods (Appearance , color , volume , wetability , sand retention , tenderness of foods , rheology of foods)

Unit -3 Rating tests

- 3.1 Ranking test
- 3.2 Two sample difference test
- 3.3 Multiple sample difference test
- 3.4 Hedonic test
- 3.5 Numerical scoring test
- 3.6 Composite scoring test

Unit -4 Body building food

4.1 Pulses:

Selection of pulses, commonly used pulses, nutritional factors in selection of pulses,

toxic factors in pulses.

4.2 Milk and Products

Selection of milk and milk products, chemical composition, standardizing, pasteurization, kinds of milk available, food products derived from milk such as cream, ghee, curd, paneer, khoa, milk powder, cheese.

4.3 Selection of Flesh Foods

Selection of flesh foods, meat, poultry, eggs, fish and other sea foods

4.4 Nuts

Selection of nuts.

Unit - 5 Protective/Regulatory foods

5.1 Vegetables

Selection of vegetables, chemical composition of vegetables and effect of heat on them, salad.

5.2 Fruits

Selection of fruits, composition, ripening and storage of fruits, banana, orange, mango, lime, custard apple, pineapple, papaya, chiku, guava, amla, melons, grapes, peach, berries.

PRACTICALS

1 Sensory Evaluation by Rating Tests -

- a) Sensory evaluation of different products by Ranking test
- b) Sensory evaluation of different products by Two sample difference test
- c) Sensory evaluation of different products by Multiple sample difference test
- d) Sensory evaluation of different products by Hedonic test
- e) Sensory evaluation of different products by Numerical scoring test
- f) Sensory evaluation of different products by Composite scoring test

2 Selecting,preparing and serving items from current restaurant menus.

(one preparation each).

- a) Legums
- b) Milk & milk products
- c) Vegetables
- d) Fruits
- e) Snacks

RECOMMENDED READINGS

- 1) N Shukuntala Manay, M. Sadaksharaswamy, "Foods –Facts and Principles.
- 2) M Swaminathan "Food Science and Experimental Food."
- 3) Peckham G C. "Foundation of Food Preparation" The Mcmillan Co. 1962
- 4) Norman P N "Food Science" The A V I Publishing Co. 1982
- 5) Charley H "Food Science" John Wiley and Sons 1982
- 6) Griswold RM "The Experimental Study of Foods" Houghtan Migglin Co. 1962
- 7) Lowe B "Experimental Cookery" John Wiley and Sons.1965
- 8) ANC-1 Nutrition for the Community- Practical manual Part-1 IGNOU.
- 9) ANC-04 IGNOU.
- 10) CCCD-02 IGNOU.
- 11) Srilaxmi- Food Science.

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-VI**FOOD PRESERVATION PAPER NO.4****DSE – 12****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

- 4) To understand the principles of food preservation
- 5) To prepare students for home scale production for preservation of products such as Jam, Jelly, tomato ketchup etc.
- 6) To Orient students regarding different methods of food preservation
- 7) To appraise the students of the latest development in food preservation

THEORY**Unit–1Introduction of Food Preservation**

- 1.1 Importance of food preservation
- 1.2 Principle of food preservation
- 1.3 Bacteriostatic method
- 1.4 Bactericidal method

Unit–2 Food spoilage

- 2.1 Food fit for consumption.
- 2.2 Deterioration of food quality – non perishable, semi perishable and perishable foods.
- 2.3 Causes of food spoilage.

Unit-3 Methods of food preservation

- 3.2 Canning
 - 3.2.1 Principles, steps in canning
 - 3.2.2 Spoilage in canned foods
- 3.3 Freezing and refrigeration
 - 3.3.1 Principles involved, types of storage at low temperature
 - 3.2.2. Selection criteria for freezing material
- 3.3 Drying and dehydration
 - 3.3.1. Principles – sun drying
 - 3.3.2. Types of driers- (home made dryer, spry dryer, vacuum dryer, tunnel dryer)
 - 3.3.3. Packaging and storage of dehydrated food
- 3.4 Food Irradiation
 - 3.4.1. Ionizing radiation and its sources
 - 3.4.2. Effects of radiation on nutritive value of food
 - 3.4.3. Use of radiation for different food groups.

Unit – 4 Preservation of food products

- 4.4 Fruit juice and squashes
- 4.5 Jam, Jelly, Marmalade.
- 4.6 Tomato products (Chutney and ketchup)
- 4.7 Pickles

PRACTICALS

Prepare the following food products in the laboratory.

1. Syrup and Squash
2. Jam
3. Jelly
4. Marmalade
5. Pickles
6. Chutney
7. Tomato ketchup
8. Freezing
9. Drying of Vegetable and Fruits.

RECOMMENDED READING

5. G. Subbulakshmi – Shobha A. Udipi, “Food Processing and Preservation”, New Age International Publisher.
6. Girdharilal, G.S. Siddappa – G.L. Tandon, Preservation of Fruits and Vegetables.
7. M. Swaminathan, “Food Science, Chemistry and Experimental Foods”.

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-VI**FOOD ANALYSIS PAPER NO.5****SEC – 11****(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)****OBJECTIVES**

1. To know the principles and applications of different techniques used in food and nutrition research
2. To gain knowledge about different instruments used
3. To enable the students to familiarize with different methods of investigation used in food analysis

PRACTICALS

- 1. Separation techniques for identification of amino acids or sugars**
 - a. Thin layer chromatography
 - b. Paper Chromatography
- 2. Estimation in food**
 - a. Moisture
 - b. Crude fibre
 - c. Calcium
 - d. Ascorbic acid
 - e. Iron
- 3. Analysis of**
 - a. Milk (Protein, fat, total solids)
 - b. Fats and oils (Acid value, saponification value, iodine value, peroxide value)
 - c. Honey (Reducing sugar)
 - d. Tea (Tannin)
 - e. Spices (Ash)
 - f. Grains (Gluten content in wheat flour)
 - g. Pulses
 - h. Coffee
 - i. Cold drinks/Soft drinks
4. Preparation of brix solution and checking by hand refractometer
5. Determination of acidity of water
6. Determination of pH of different foods using pH meter
7. Determination of refractive index and specific gravity of fats and oils

T.Y.B.H.Sc. (MAJOR –FOODS & NUTRITION) SEMESTER-VI**MICROBIOLOGY PAPER NO.6****SEC – 12****(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)****OBJECTIVES**

- 1) Gain deeper knowledge of role of micro- organisms in human and environment.
- 2) Understand the importance of micro-organisms in food spoilage and to learn advanced techniques used in food preservation.
- 3) Understand the criteria for microbiological safety in various food operations to avoid public health hazards due to contaminated foods.

Unit I: Microbiology: Its history and economic importance

Scope of microbiology

3. Discovery of bacteria and virus
4. Contribution of various scientists in establishment of microbiology as a discipline
 - c. Theory of spontaneous generation of life
 - d. Germ theory of fermentation and decay
 - c. Germ theory of disease

Unit II: Bacteria, yeast, mold and virus

Morphological details

4. Reproduction
5. Requirements for growth
6. Types of media and conditions of incubation
5. Classification and nomenclature

Unit III: Microscopy and Control of Micro Organism**1. Microscopy****2. Sterilization method Physical and Chemical****Unit IV FOOD SAFETY AND TOXICOLOGY**

- Microbiological Examination of Food
 - Naturally occurring toxicants and food contaminants
 - Microbial problems in food safety including Mycotoxins and Viruses
 - Environmental, pesticide residue and food additives
 - Safety aspects of foods produced by biotechnology and genetic engineering

Unit V METHODS OF ISOLATION AND DETECTION

- Isolation and detection of micro – organisms in food
- Conventional method
- Rapid methods
- Immunological methods – Fluorescent, antibody, radioimmunoassay, ELISA
- Chemical method

Unit VI : Immunity

- i. Types of Immunity

RECOMMENDED READINGS

4. Food Microbiology – Frazier W.C.and Westhoff D.C.McGrawHill Inc.Ltd.
5. Modern Food Microbiology – Jay James M. Van Nostrand Reinhold Company Inc.
6. Peleczar and Reid – Microbiology McGraw-Hill Book Company New York

T.Y.B.H.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER-V**TEXTILE PROCESS PAPER NO.1****DSE – 05****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES –**

1. Impart knowledge of parenting to basic principles of dyeing printing and finishing
2. Help develop creativity in designing for prints.
3. Impart knowledge of care and maintains of clothes

Unit ; 1. Dyeing

- 1.1 History of dyeing
- 1.2 Type of dyeing
- 1.3 Application of dyeing

Unit: 2. Printing

- 2.1 Type of Printing
 - 2.1.1 Screen Print
 - 2.1.2 Block Print
 - 2.1.3 Roller Print
 - 2.1.4 Resist Print
 - 2.1.5 Tie & Die (Bandhani)
 - 2.1.6 Discharge Print
 - 2.1.7 Stencil Print

Uni : 3. Finishing

- 3.1 Definition of Finishing
- 3.2 Objective of Finishing
- 3.3 Importation of Finishing
- 3.4 Type of Finishing
 - 3.4.1 Chemical Finishing
 - 3.4.2 Physical Finishing
 - 3.4.3 Special Finishing

Unit: 4 Bleaching

- 4.1 Definition of Bleaching
- 4.2 Objective of Bleaching
- 4.3 Importance of Bleaching
- 4.4 Types of Bleaching
 - 4.4.1 Oxidising Bleaching
 - 4.4.2 Reducing Bleaching

PRACTICAL:

1. Dyeing - Simple Dying , One & Two Colour dyeing
2. Batik Print
3. Tie & Dye
4. Block Print

5. Stencil Print (Two way)
6. Colour Wheel
7. Visit to Dye /Printing Unit.

RECOMMENDED READINGS

1. Pattern Making Fashion Design Armstrong, H.J. , 2009 Harper Collins. Publication Inc, New York
2. Evaluating Apparel Quality Stamper, A.A., S.H. Sharp and L.B. Donell . 1996, Fairchild Publication, America

T.Y.B.H.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER-V**APPAREL MAKING PAPER NO.2****DSE – 06****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES –**

1. Familiarize with the essentials of apparel making.
2. Acquaint with the various steps involved in the apparel making system.
3. To gain in making certain garments for personal/Individual

THEORY**Unit:1 Elements of Design**

1.1 Types of elements

- 1.1.1 Line
- 1.1.2 Shape/Form
- 1.1.3 Colour
- 1.1.4 Texture
- 1.1.5 Design
- 1.1.6 Light
- 1.1.7 Space

1.2 Elements of Design as applied to apparel designing

Unit: 2 principles of Design

2.1 Types of Principles

- 2.1.1 Balance
- 2.1.2 Proportion
- 2.1.3 Rhythm
- 2.1.4 Emphasis
- 2.1.5 Unity
- 2.1.6 Harmony

2.2 Elements of Design as applied to apparel designing

Unit:3 Pattern Making for garment

- 3.1 Drafting
- 3.2 Paper Pattern
- 3.3 Block Pattern
- 3.4 Lay Out
- 3.5 Flat Pattern
- 3.6 Draping

Unit: 4 Preparation step for garment apparel making

- 4.1 Fabric for apparel making
- 4.2 Preparation for cutting for apparel making
- 4.3 Width of fabric

PRACTICAL

1. Sketching for Elements of Design
2. Sketching for Principles of Design
3. Drafting, Paper Pattern & Lay out for children garment
4. Project Work : Make an article smocking /Honey comb

RECOMMENDED READINGS

1. Tailoring Mcgraw Hill, Bane A. 1974
2. Dress Pattern Designing London , Crossby Lockwood & Staples
3. Sivan Magdrshika – Nirmla Mistri
4. Vastra Vigyan ke Sidhdhat – Dr.G.P.Shairy

T.Y.B.H.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER-V**INDIAN EMBROIDERY PAPER NO.3****DSE – 07****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES:**

1. To develop interest in embroidery.
2. To develop skill in hand embroidery.
3. To aware about different state of embroidery.

THEORY**Unit: 1.Embroidery**

- 1.1 Meaning & Definition of Embroidery
- 1.2 Aims of Embroidery
- 1.3 Importance of embroidery
- 1.4 Points to be consideration while embroidering

Unit: 2. Step o f embroidery

- 2.1 Selection of Fabric
- 2.2 Selection of Design
- 2.3 Selection of Thread
- 2.4 Tracing of Design

Unit: 3. Tools of Embroidery**Unit : 4 Embroidery of different State**

- 4.1 Kashmiri embroidery
- 4.2 Panjabi Phulkari
- 4.3 Laukhanvi Chikankari & Shadow work UttarPradesh
- 4.4 Gujrati embroidery
- 4.5 Rajesthani embroidery
- 4.6 Chamba Rumal Himachal Pradesh
- 4.7 Bangali Kantha –Bangal
- 4.8 Patch of Orissa
- 4.9 Manipur embroidery
- 4,10 Tamilnadu embroidery (Toda Embroidery)
- 4.11 Aasam embroidery (Loom)
- 4.12 Embroidery of Bihar (Sujani)
- 4.13 Embroidery of Karnataka (Kasuti)
- 4.14 Embroidery of Banaras (Jarikala)

Uni : 5. Decorative Stitches

- 5.1 Silver Golden work
- 5.2 Scalloping
- 5.3 Net work
- 5.4 Bead work

PRACTICAL :

1. Prepare consumers items using Indian embroidery
 - Kashmiri embroidery – Table met
 - Panjabi Phulkari - Belt / Telephone met
 - Shadow work – Sharee Cover/Dupatta
 - Bangali Kantha – Baby shawl
 - Chikankari – Handkerchief
 - Gujrati embroidery – Toran, Chakada
 - Project work: Various types of mirror work or Traditional Stitches.

RECOMMENDED READINGS

1. Indian Embroidery, Jemilla Brajbhushan
2. Indian embroidery ,- Kamala devi Chatopadhyay
3. Dress Designing – Dr. V.S. Samani
4. Bhart Margdarshika – Niamala Mistri

T.Y.B.H.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER-V**DRESS DESIGNING PAPER NO.4****DSE – 08****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES –**

1. To develop skills in students related to application of elements and principles of designs on garments.
2. Improve the skill in garment making.
3. To develop confidence through skill in making different garment.

THEORY:**Unit: 1 Principle and concept of dress designing**

- 1.1 Types of design
- 1.2 Elements of design
- 1.3 Principles of design

Unit: 2 Clothing Constructions

- 2.1 Standard Measurement
- 2.2 Eight Head's Theory

Unit: 3 Fitting

- 3.1 Problems of Fitting
- 3.2 Problems and remedy of fitting

Unit: 4 Methods of Pattern Making

- 4.1 Drafting
- 4.2 Flat pattern
- 4.3 Drapping

Unit: 5 Selection of fabrics

- 5.1 Budget
- 5.2 Age
- 5.3 Occupation
- 5.4 Figure
- 5.5 Fashion

PRACTICAL :

1. Sketch of Eight heads theory
2. Sketch of garment using elements and principles of design
3. Stitch (any one)
 - Panjabi Curta
 - Salwar

RECOMMENDED READINGS:

- 1) Neelima,(2009) Fashion and Textile Design, Sonali Publications, Delhi
- 2) Joshi Dattatraya, (1989) Poshak Nirman ke Siddhant (Dress making theory), Tata megra-hill publishing Co. Ltd., Delhi.
- 3) Mistry Nirmala, Sivan Margdarshan, Navneet Publication, Ltd., Ahmedabad.
- 4) Samani Vina, (2012), Apparel making part-1, Saurastre University, Rajkot.
- 5) Samani Vina, (2005), Dress Designing, Pravin Prakashan Pvt. Ltd. Rajkot.

T.Y.B.H.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER-V**TEXTILE PROCESS PAPER NO.5****SEC – 09****(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)****OBJECTIVES –**

To enable the students to

1. Acquaint with the materials, equipments and processes involved in laundering.
2. Teach those the differences in the laundering process use for different fabric.

THEORY**Unit: 1 Introduction**

1.1 Introduction and Classification to laundry process.

(A) Wet cleaning

(B) Dry cleaning

1.2 Materials and Equipment of Laundry.

Unit: 2 Principle of laundering

2.1 Hand washing methods

2.2 Washing Machine

2.3 Dry Cleaning

Unit: 3 Additives used in laundry

3.1 Optical Brighteners

3.2 Bluing

3.3 Starches

Unit: 4 Laundering, maintains and care of clothes

4.1 Cotton/Linen

4.2 Silk

4.3 Wool

4.4 Synthetics

Unit: 5 Stain Removals

5.1 Animal stain

5.2 Vegetable stain

5.3 Dye stain

5.4 Mineral stain

5.5 Grease stain

RECOMMENDED READINGS:

- 1) Rastogi, M. (2009) Textile and Laundry, Sonali Publications, Delhi
- 2) Rastogi, M. (2009) Mineral Textile, Sonali Publications, Delhi
- 3) Yadav, Seema (1997), Textbook of textile and laundry, Anmol Publications Pvt. Ltd. Delhi
- 4) Alexander, R. R. (1997) Textiles Product selection, use and care Boston Houghton Mifflin Co.
- 5) Duelkar Durga, (1976) Household textile and laundry work, Delhi Atmaram and Sons.
- 6) Vastra Vighyan and Dhulaikala- Dr. Bela Bhargav.

T.Y.B.H.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER-V
SOCIOLOGICAL AND PSYCHOLOGICAL ASPECT OF CLOTHING

PAPER NO.6

SEC – 10

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES –

1. To aware the students about concept and origin of clothing.
2. To create awareness about impact of attitudes and values on clothing and fashion.

THEORY

Unit: 1 Concept and Theories of the origin of clothing.

- 1.1 Theory of Decoration
- 1.2 Theory of Protection
- 1.3 Theory of Modesty
- 1.4 Theory of Immodesty

Unit: 2 Impression formation, self-evaluation, self enhancement.

Unit: 3 Factors influencing choice of clothing –

- 3.1 Attitude
- 3.2 Value
- 3.3 Interest
- 3.4 Roles
- 3.5 Status.

Unit: 4 Conformity and individuality in dress.

Clothing and physical self.

RECOMMENDED READINGS

13. Marilyn J. Horn (1975) The Second Skin – (An interdisciplinary study of clothing) Houghton Mifflin Company/ Boston

T.Y.B.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER –VI

WEAVING AND KNITTING PAPER NO. 1

DSE-09

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVE

1. To develop ability to recognize different woven designs.
2. To develop ability to create different weaving and knitting samples.

THEORY

Unit: 1 Weaving

- 1.1 Introduction to weaving
- 1.2 Term used in weaving
- 1.3 Classification of weaves
 - i. Basic weaves (plain, rib, basket, twill, satin and sateen)
 - ii. Decorative weave (crape, leno, dobby, jacquard, pile, double cloth)

Unit: 2 Looms

- 2.1 Classification of loom
- 2.2 Handloom and power loom
- 2.3 Simple loom and its parts and working

Unit: 3 Knitting

- 3.1 Technology
- 3.2 Types of knits (flat, circular, finger, loop, lace and cable knitting)
- 3.3 Designing of knit

Unit: 4 Non Woven fabrics

- 4.1 Introduction
- 4.2 Non woven fabric forming techniques

PRACTICAL

- 1) Make samples of various plain weave and their derivatives
(With draft and peg plan-Rib and Basket weave)
- 2) Make samples of twill derivatives. (right hand, left hand, diamond and herring bone twill)
- 3) Make a samples of satin and sateen.
- 4) Make a sample of two needle samples (any six)
- 5) Constructive article by using method like – Hand weaving, Knitting, Crochet and Macrame. (Any one)

RECOMMENDED READINGS

- 1) Wynne Andrea, (1997) MOTIVATE (Macmillan Texts for Industrial Vocational and Technical Education) Macmillan education Ltd.
- 2) Rastogi Meenakshi (2009), Fibers and yarn, Sonali Publications, New Delhi
- 3) Dr. Veena Samani-Introduction to Textile

T.Y.B.Sc. (MAJOR – CLOTHING & TEXTILE)**SEMESTER –VI****RESEARCH AND DOCUMENTATION****PAPER NO. 2****DSE – 10****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVE**

To enable students to

4. Understand the fundamental principles of methodology concerning research;
5. Prepare research tools applicable to developmental issues;
6. Develop skills in documentation

THEORY**UNIT – 1 Research**

- 1.6 Introduction
- 1.7 Meaning and definition of research
- 1.8 Characteristics of social research
- 1.9 Objectives of research
- 1.10 Role of research in Home-science

UNIT – 2 Main steps and importance of research

- 2.1 Introduction
- 2.2 Major steps of social research
- 2.3 Importance of research
- 2.4 Types of social research
 - 2.4.1 Pure research
 - 2.4.2 Applied research

UNIT – 3 Hypothesis of Research

- 6.1 Introduction
- 6.2 Meaning and definition of hypothesis
- 6.3 Characteristics of hypothesis
- 6.4 Sources of hypothesis
- 6.5 Functions of hypothesis
- 6.6 Limitations of hypothesis

UNIT – 4 Data Gathering Instruments

- 4.6 Introduction
- 4.7 Observation
- 4.8 Questionnaire
- 4.9 Interview

4.10 Survey

UNIT – 5 Sampling

5.1 Introduction

5.2 Meaning and definition of sample

5.3 Characteristics of good sampling

5.4 Needs and use of sampling

5.5 Types of sampling

UNIT – 6 Classifications and Presentation of Data

6.1 Introduction

6.2 Classification of data

6.3 Coding data

6.4 Tabular presentation of data

6.5 Graphic presentation of data

UNIT – 7 Research Design

7.1 Introduction

7.2 Meaning and definition of research design

7.3 Some important point to be consider while preparing the research design

PRACTICAL

A project preparation on home science related subjects by survey, interview, and questionnaire method.

RECOMMENDED READINGS

- A.N.Sadhu,(1980). Research methodology in social science, Bombay: Himalayas Publishing House,
- Dr. G.B.Singh, (2011). Research Methodology I, Jaipur: Paradis Publishers.

M.N.Borse, (2004). Research Methodology, Jaipur

T.Y.B.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER - VI
TEXTILE DESIGN AND ADVANCE PRINTING PAPER NO. 3

DSE-11

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVE

1. To develop creativity in designing for different prints.
2. To create awareness about traditional textiles and printing.
3. To develop skills related to different printing techniques.

THEORY

Unit: 1 Surface Design in Textile.

- 1.1 Printing and painting

Unit: 2 Dyeing

- 2.1 Introduction
- 2.2 Classification of dyes
- 2.3 Application and methods of dyeing
 - i. Direct
 - ii. Resist
 - iii. Dischar
- 2.4 Fiber, yarn, fabric and garment dyeing.

Unit: 3 Printing

- 3.1 Fundamental of printing – color and pigment for printing
- 3.2 Hand printing
- 3.3 Machine printing
- 3.4 Advance printing methods.

Unit: 4 Tradition Textiles and Printing

Kalamari Print, Pichodi Print, Pithara print, Madhubani print, Pichavai Print, Rogan print, Ajrak Print, Varli Print.

Unit: 5 Ecofriendly Textiles

- 5.1 Meaning
- 5.2 Advantage

PRACTICAL:

- 1) Prepare a portfolio of the traditional dyeing and printing motifs.
- 2) Prepare a screen for saree print with the use of tracing paper.
- 3) Make a household article by using printing method-any one.
- 4) Make a one specimen using with eco-friendly dyes.

RECOMMENDED READINGS:

14. Neelima, (2009) Printing and Washing of Textile, Sonali Publication, New Delhi.
15. Khandelwal, M. and Chauhan, M., (2005) Dyeing Printing and Textile, Ritu Publications, Jaipur.
16. Arora, A. (2009) Textbook of Dyes, Sonali Publication, New Delhi.
17. Clark- Introduction to textile printing.

T.Y.B.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER - VI**ADVANCE DESIGN AND FASHION TECHNOLOGY****PAPER NO. 4****DSE-12****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

1. To enable student developing skill enhancement of fabric and garment s with all the details in an appealing manner.
2. To understand the dynamic role of fashion designers.

THEORY**Unit : 1. Fashion maker sewing Machine**

- 1.1 Parts and functions of Fashion maker sewing machine
- 1.2 Operation of Fashion maker sewing machine
- 1.3 Care & maintenance of s Fashion maker sewing machine

Unit: 2. Fashion

- 2.1 Concept and scope of fashion
- 2.2 Importance of fashion.
- 2.3 Classification of fashion
- 2.4 Fashion movement & Development.

Unit: 3. Surface design in apparel

- 3.1 Accessories
- 3.2 Embroidery
- 3.3 Ruffles
- 3.4 Braiding
- 3.5 Lace

Unit: 4. Knowledge of fashion trends Brands and Designers

- 4.1 Introduction to designers
 - 4.1.1 National Designers
 - 4.1.2 International Designers
- 4.2 Fashion forecasts and role of fashion designers in market.

Unit: 5. Business of fashion

- 5.1 Business opportunities and avenues.
- 5.2 Channels & distribution.
- 5.3 Boutique Handling.

PRACTICAL

1. Demonstration of fashion maker sewing machine
2. To identify different parts and functions of fashion maker machine.
3. To make Fashion Accessories – (Any Two)
 - f. Jewellery
 - g. Hand Bag
 - h. Purses
 - i. Broach
 - j. Belt
4. Make a sample of surface decorative design
 - a. Sketches with rendering effects in different posture.-(front, Back & Side view)
 - b. Make a portfolio : To Use of Corel Draw in Sketching style for different age group
5. Visit fashion week /fashion shows / Exhibition

RECOMMENDED READINGS

- 1) Fashion Design Essentials:100 Principles of Fashion Design - Rockport | Jay Calderin
- 2) The culture of Fashion - Christopher Breward
- 3) Fashion and Modernity 0 Christopher Breward
- 4) Fashionology: An Introduction to Fashion Studies - Yuniya Kawamura
- 5) Fashion and Its Social Agendas: Class, Gender, and Identity in Clothing - Diana Crane
- 6) Fashion Cultures: Theories, Explorations and Analysis - Stella Bruzzi
- 7) Ready to Wear Apparel Analysis. Prentice Hall, Brown, Patty, Rice J., 1998.
- 8) Individuality in Clothing & Personal, Marshall S G, Jackson H O, Stanley MS, Kefgen M & Specht T, 2009.
- 9) Appearance, 6th Edition, Pearson Education, USA.
- 10) The Complete Book of Fashion Design, Harper and Row Publications, Tate S.L., Edwards M.S., 1982, New York

T.Y.B.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER - VI

HISTORICAL COSTUME PAPER NO. 5

SEC-11

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVE

To gain knowledge about history of costume

To develop understanding in application of knowledge of historical costume of India

THEORY :

Unit: 1 Historical costume

- Importance
- Various sources of information
-

Unit 2 Costume of the ancient time

- Egypt
- Greece
- Rome
- France

Unit 3 Costume of ancient India

- Vadic
- Mughal
- Rajput

Unit 4 indian costumes

- Northen
- Eastern
- Western
- Southern
- Central India

RECOMMENDED READINGS

- 1) Ancient Indian costume Author: Roshem alkazi Publication 2014 6th edition

T.Y.B.Sc. (MAJOR – CLOTHING & TEXTILE) SEMESTER - VI**TEXTILE TESTING PAPER NO. 6****SEC-12****(CREDITS: THEORY – 0, PRACTICAL – 2, TOTAL – 2)**

Focus:-

Quality of fabrics depends on their components in this course helps to learn the method of testing fiber, yarn and fabrics

OBJECTIVE

To acquaint students with knowledge of fiber, yarn and fabric properties and their measurements.

PRACTICAL:-

1. Testing of fiber
 - microscopic
 - physical
 - burning
 - chemical
2. Identification of fabric
 - calculate the fabric
 - study the weight per unit
 - shrinkage of fabric
3. To test effect of bleaching agent on different clothes i.e. cotton ,nylon, silk,wool
4. To test effect of absorb ability on different clothes i.e. cotton,nylon,silk., wool
5. visit to a patola unit
6. visit to a textile factory

RECOMMENDED READINGS

Hand book of textile testing and quality control Author Elliant B Grover , Dames hamby

Publisher – New York textile book publisher (1960)

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –V**FOOD SERVICE MANAGEMENT PAPER NO.1****DSE – 05****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES –**

To enable students to

1. Familiarise with different needs & Jobs of Food service Management and their
2. Management Learn in detail about Management of each job.

Theory:**Unit 1:Aim and Objective of service**

- 1) Scope of Catering in hotel industries
- 2) Organisation of space or service area

Unit 2: Equipments of service

- 1) Introduction to basic equipments of service
- 2) Clasification of equipments
- 3) Care and use of special equipments of service

Unit 3: TABLE EXHIBITS/ LAYOUTS & SERVICE

- A La Carte Cover
- Table d' Hotel Cover
- English Breakfast Cover
- American Breakfast Cover
- Continental Breakfast Cover
- Indian Breakfast Cover
- Afternoon Tea Cover/High Tea Cover

Unit 4: FOOD SERVICE AREAS (F & B OUTLETS)

- Specialty Restaurants
- Coffee Shop
- Cafeteria
- Fast Food (Quick Service Restaurants)
- Banquets
- Bar
- Discotheque

PREPARATION FOR SERVICE

- Organizing Mis-en-Scene
- Organizing Mis-en-Place

TYPES OF FOOD SERVICE

- Silver service
- Pre-plated service

- Cafeteria service
- Room service
- Buffet service
- Gueridon service
- Lounge service

Types of Meals

- oEarly Morning Tea
- oBreakfast (English, American Continental, Indian)
- oBrunch
- oLunch
- oAfternoon/High Tea
- oDinner
- Supper

Etiquette and Manners of Food serving on table

Unit 5:Food commodities

- 1) Know thw qualities and standards of food commodities
 - a) Cereals: Rice and Wheat
 - b) Fat and Oils: Ghee and Oil
 - c) Vegetables and Fruits
 - d) Pulses and Legumes
 - e) Sugar
 - f) Milk and milk products
 - Storage, Processing and Cost
- 2) Understand use of Different commodities in various food preparation

PRACTICALS:

- 1) Table setting and service of
 - a) Table-d-hote
 - b) A-la-carte
 - c) Buffet
 - d) Break fast
 - Use and care of of different service equipments
- 2) Prepare menu card
 - a) Table-d-hote
 - b) A-la-carte
 - c) Breakfast 2(daily or weekly)
- 3) Preparation of dish and serving practice from food commodities
 - a) Rice
 - b) Wheat
 - c) Sugar
 - d) Vegetable
 - e) Fruit

- f) Pulses
- g) Salad
- h) Soup
- i) Snacks
- j) Desert
- k) Milk or Paneer or Cheese

RECOMMENDED READINGS

- 1) *Khan Mohammad A.(1987) Food service Operations, Connecticut, Avi Publishers*
- 2) *Kazarian Edward A.(1989) A Food service facilities planning 3rd Eddition, New York
Van Norstrand reinhold*
- 3) *Pinnis lillicrap(1991) Food and bevarages London*
- 4) *John Fuller(1987) Modern Restaurant services Londons*

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –V

HOUSE KEEPING PAPER NO.2

DSE – 06

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

To enable students

1. To become aware of the different areas and functions of housekeeping department.
2. To be aware of the importance of proper sanitation and hygiene in room.
3. To develop skills in housekeeping activities.
4. Gain knowledge of accessories of hotel.

THEORY:-

Unit-1 INTRODUCTION TO HOTELS AS A SERVICED INDUSTRY.

- 1.1 Types of service offered in hotels.
- 1.2 Types of operation (Plans)

Unit-2 HOUSE KEEPING

- 2.1 Introduction and importance of hospitality.
- 2.2 Organization of housekeeping department.
- 2.3 Duties and responsibilities of housekeeping staff.
- 2.4 Co-ordination of housekeeping department with other departments.

Unit-3 CLEANING ACTIVITY.

3.1 Cleaning agents.

- Types of cleaning agent:-
 - Liquid cleaning agent.
 - Powder cleaning agent.
 - Paste cleaning agent.
- Selection and use for different surface
- Cleaning Techniques

3.2 Cleaning mechanical equipments:

- Vacuum cleaner.
- Shampoo machine.

3.3 Types of cleaning.

Unit 4 LINEN AND UNIFORM ROOM:-

4.1 Types of linen and their selections.

- Table linen.
- Bed linen.
- Bath linen.

4.2 Stock determination, Control and distribution, Record keeping of linen.

- 4.3 Types of uniform.
- 4.4 Selection of uniform.
- 4.5 Distribution and control.

Unit-5 ACCESSORIES:-

- 5.1 Types and their place in interior Decoration.
- 5.2 Paintings, sculpture and posts, and other Accessories.

Practical's:

1) Visit to a hotel:-

- A) Get ideas of furniture arrangements and interior Decoration of different areas of hotel.
- B) Report on activities and organization of hotel.

2) Table setting and decoration:-

- A) Formal, informal and buffet
- B) Decoration- Flower arrangement for dining table.
 - Fruit display.
 - Salad decoration.

3) Cleaning and care of different material:-

- A) Metal, glass, wood, paints and upholstery.
- B) Floor, sink
- C) Decorative articles.

4) Stain removal:-

Tea, coffee, fruit, lipstick, blood, rust, oil paint and Termaric.

RECOMMENDED READINGS

Andrews Sudhir (1985)

- Hotel House Keeping – Training Manual, Tata McGraw- Hill Publishing Co., Ltd. New Delhi.
- Chakrawati B.K.
A Technical Guide of Hotel Operation.
Metropolitan Book Co. Pvt. Ltd. New Delhi.
- Aster (1970)
- MANAGEMENT of Hospitality Operations
- Boobs merill, London.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –V

WORK PLACE ENVIRONMENT PAPER NO.3

DSE – 07

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES

To enable students to:

- 1) Familiarize the students with the effect of work place environment on health & efficiency.
- 2) Gain knowledge about the human cost of work.
- 3) Understand the principles for designing work place to increase efficiency in house hold work

THEORY:

Unit : 1

- 1) Concept of work place environment – heat ,cold, noise,lighting, vibration & atmospheric pollution
- 2)

Unit : 2 Work place environments

- 1) work place
- 2) work and worker's environment relationship
- 3) significance of suitable design and arrangement of component units, kitchen as the most important work area, types and functional arrangement.
- 4) Illumination
 - a) purpose
 - b) types of lighting – natural & artificial
 - c) measurement
 - d) glare
 - e) lighting standars for various tasks

Unit : 3 Body mechanics of work

- 1) Skeletal structure
- 2) Posture
- 3) Motion
- 4) Movement momentum
- 5) Types of effects – Effects of working height and
- 6) Storage in relation to authropometric measurement

Unit : 4 Cost of work

- 1) human energy expenditure – Oxygen consumption
- 2) method of measurement
- 3) Fatigue- causes , types of fatigue, techniques of minimizing fatigue

Unit : 5 Factors influencing physiological reactions during work

- 1) Age
- 2) Sex
- 3) Nutrition
- 4) Physical fitness
- 5) Nervous system
- 6) Attitude
- 7) Climate
- 8) Clothing

Unit : 6 Study the techniques of work simplification

- 1) Meaning and aims of work simplification
- 2) Techniques of work simplification
- 3) Mendel's level of change

PRACTICAL:

- 1) study of environment factors such as – light ventilation, noise, heat, cold, vibration, and atmospheric pollution
- 2) measurement of illumination level in different work place
- 3) study observation of families for their work patterns, time, plans, distribution of work in the families & effect of working height & storage in relation to anthropometric measurement in the families (by survey work 15 families)
- 4) conducting experiment to study the techniques of work simplification
 - a) operation chart
 - b) pathway chart

RECOMMENDED READINGS

- 1) GRUH NIRMAN AVAM STHAN VYAVSTHA(HINDI)
Dr. bela bhargav university book house pvt . ltd. 79, chauda rasta JAIPUR
- 3) GRUH KARYA PRABANDH(HINDI) Dr. snehlata discovery publishing housing new delhi
- 3) GRUH NIRMAN AUR GRUH SAJJA(HINDI)Dr. snehlata Discovering publishing housing DELHI.
- 4) ENVIRONMENTAL POLLUTION TYMMY KATYAL & M. SATAHE (1989) Anmol publication NEW DELHI

T.Y.B.H.Sc. (GENERAL HOME SCIENCE) SEMESTER –V**INDOOR OUTDOOR GARDENING PAPER NO.4****DSE – 08****(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)****OBJECTIVES**

To enable student,

To aware knowledge of house hold gardening and its designing

Theory**Unit : 1 Inlroduction**

- 1.1 Principles of gardening
- 1.2 Knowledge \$ Types of plant and soil
- 1.3 Cultivation of soil
- 1.4 Importance of gardening
- 1.5 Watering
- 1.6 Transplanting
- 1.7 Potting

Unit : 2 Garden Design

- 2.1 Selection of site
- 2.2 Water
- 2.3 Layout
 - Rock garden
 - Rosary
 - Water garden
 - Terrace garden
 - Kitchen garden

Unit : 3 Indoor Gardening

- 3.1 Cultivation and Maintenance of
 - Hanging plant
 - Climbers
 - Cacti
 - Flowering plant from bulb
 - Pot plant for foliage
- 3.2 Cultivation of lawn and its mainStenance
- 3.3 Propagation of plants by seed , grafting , budding , cutting and layering
- 3.4 Steps of successful gardening

Unit : 4 Methods \$ Cultivation of fruits \$ Vegetables

- 4.1 Potatoes , sweet patotoes , mint , carrots , cabbage , onions and garlic , tomatoes , Beetroot , leafy vegetales.
- 4.2 Lemon , graps , mulberry , Pomegranate Strawberry , Banana , guava , Papaya.

Unit : 5 Fertilizers

- 5.1 Biofertilizers and chemical fertilizers.
- 5.2 Types of nutral and chemical fertilizer and their use.
- 5.3 Common pests
 - Common pests , Insects and their control.

PRACTICALS

- 1) Study of garden tools
- 2) Preparing plan for kitehen garden or home garden.
- 3) Preparing seed bed and seed sowing.
- 4) D emonstration practical : Propagation by grafting , budding , layering.

- 5) Preparation of compost.
- 6) Cutivation and maintenance of indoor plants.
 - Pot filling , cultivation.
 - Maintence of climbers and leafy vegetables -- methi , coriander , spinach , beans

RECOMMENDED READINGS / WEBSITES

- 1) Gardening -- Premila Mehra.
- 2) Percy lancaster's Gardening in India Revised by -- T . K . Bose \$ D . Mukherjee
- 3) Complete Gardening in India -- K . S . Gopalswamy lyenger (Bangalore)
- 4) Plant Propagation , Principles \$ Practice – Hartmann H . \$ Kester D . E . (Prentice Hall of India Pvt . Ctd . New Delhi)

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI

THEORY OF MANAGEMENT PAPER NO.5

SEC – 09

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES –

To helps the students to

1. Understand the significance of management in the micro and macro organizations.
2. Know the conceptual human and scientific aspects of management function.
3. Develop the ability to evaluate the managerial efficiency and effectiveness in the family and other organization.

THEORY

Unit-I Management as a discipline

- (1) Management as science
- (2) Meaning and definition
- (3) Principles of management
- (4) Managerial role

Unit-II Stages of development

- (1) Classical organization theory
- (2) Neo-classical management
- (3) Modern management Theory

Unit-III Management abilities

- (1) Technical
- (2) Conceptual
- (3) Human

Unit-IV Management of change

- (1) Meaning
- (2) Forces for change
 - a) External force
 - b) Internal force
 - c) Indirect force
- (3) Types of change
- (4) Process of change

Unit-V Decision Making

- (1) Meaning
- (2) Types of decision
- (3) Steps of decision making
- (3) Decision tree.

RECOMMENDED READINGS

- (1) Chaudhuri P.K.- The Indian economy poverty and development 3rd Edi Vikon publishing hoouse New Delhi Unit I & II.
- (2) Adhikari M- Managerial economics Khosala house unit III & IV
- (3) Khan My India Financial System 3rd edn. vikas Publishing House New Delhi.
- (4)Adhikari M.-Economic environment of business- sultan Chand Unit- I & III

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –V

FRONT OFFICE MANAGEMENT PAPER NO.6

SEC – 10

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES-

To enable student to

- 1) Understand the organizational procedures of the front office
- 2) Comprehend the principle of front office operation
- 3) Acquire skill in personal management

THEORY

Unit: 1 Introduction of front office & hotel guests

- 1) Classification of hotels (types)
- 2) Major department in a hotel
- 3) Management structure of a hotel
- 4) Room rates, tariff structure & basis of charging
- 5) Types of hotel guests & selection of a hotel
- 6) Guests & their needs
- 7) Interaction between guests & front office personal

Unit: 2 Front Office Operation

- 1) Front office salesmanship
- 2) Duties & qualities of front office personal
- 3) Basic terminology used in front office

Unit: 3 Front Office Organizations

- 1) Lay out of a front office (plan)
- 2) Planning equipment & furniture for front office
- 3) Organizational structure of the front office

Unit: 4 Reservations

- 1) Sources of hotel booking
- 2) Modes of room reservation
- 3) System of room reservation-convectional, Whitney, computerized
- 4) Recording room reservations-charts, records, diaries, forms
- 5) Filling systems
- 6) Advance booking

Unit: 5 Receptions

- 1) Expected arrival & departure list
- 2) Contractual terms between hotel & guest
- 3) VIPs procedure
- 4) Functions of all room rack mail rack
- 5) Change of guest room
- 6) Key handling & control
- 7) Room status report, occupancy percentage
- 8) Preparing room report, night clerks report

Unit: 6 Planning Functioning

- 1) Man power planning
- 2) Recruitment procedures & selection
- 3) Placement & training
- 4) Job selection and job evaluation
- 5) Promotion & transfer
- 6) Personal appraisal

PRACTICAL:

- 1) Give report on types of hotels
- 2) Collect information about reservation in hotel from nearby hotel -
 - a) Accepting reservation with the use of convectional chart,
 - b) Dairy forms
- 3) Receiving guest in various situation
 - a) Confirmed booking without reservation
 - b) Group booking
 - c) VIP procedure
- 4) Handling change of room procedure, wake up calls, guest request.

RECOMMENDED READINGS

- 1) *Adrews S. (1982) Hotel front office training manuals Tata mc graw hill Dix c. (1979)*
Accommodation operation front office McDonald & evans ltd. Dukes P. Hotel front office management & operation I.O.W.A., W.M.C.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI
FOODPACKAGING AND MARKETING PAPER NO.1
DSE – 09
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES –

This course will enable the students to

1. Know different packaging materials available
2. Select appropriate packaging materials for varied food products.
3. Be aware of new advances and state of the art in food packaging,

Unit 1

1.1 Importance of packaging.

1.2 Function of packaging primary elements of package form, material and decoration.

Unit 2

2.1 Various packages forms.

2.2 Product, tubes tetra packs, cans bottles

Unit 3

3.1 Packaging Materials

3.2 Their properties, advantages and limitations- (aluminum glass tinned steel plate, carton board, paper flexible films, laminates and others.

Unit 4

4.1 Packing methods and performances Including restorable plastic packaging aseptic packaging modified atmosphere packaging.

Unit 5

5.1 Decoration graphics designs, suitable printing methods.

Unit 6

6.1 Storage, distribution and transportation shipping containers, secondary containers (boxes, Crates, baskets etc.)

Unit 7

7.1 Food & Food packaging interaction

Unit 8

8.1 Food packaging and laws

Unit 9

9.1 Consumer behavior, purchase habits and motives.

PRACTICAL

Following Food Products Preparation labeling, packing, cost calculation marketing,

- (4) Pickles sweet and spicy (any two types)
- (5) Sauces-Tomato ketchup; tomato sauce, red chilli sauce green chilli Sauce.
- (6) Syrups and squashes synthetic and fresh syrup orange pineapple squash
- (7) Instant masalas-(any three)
- (8) Jam (any two)
- (9) Snacks- Namkin (any two) sweets (any two)
- (10) Project work

Visit to a local commercial food manufacturing and packaging unit.

RECOMMENDED READINGS

- Sacharow S. and Grittin R (1980) Principals of Food packaging- Av Publication co.
- Briston and Neil : Packaging management Gover. Press.
- Roberston G.L. (1193) Food Packing : Principles and practice, marcel Dekker New-York.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI
RESEARCH AND DOCUMENTATION PAPER NO.2
DSE – 10
(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES –

To enable students to

7. Understand the fundamental principles of methodology concerning research;
8. Prepare research tools applicable to developmental issues;
9. Develop skills in documentation

THEORY**UNIT – 1 Research**

- 1.11 Introduction
- 1.12 Meaning and definition of research
- 1.13 Characteristics of social research
- 1.14 Objectives of research
- 1.15 Role of research in Home-science

UNIT – 2 Main steps and importance of research

- 2.1 Introduction
- 2.2 Major steps of social research
- 2.3 Importance of research
- 2.4 Types of social research
 - 2.4.1 Pure research
 - 2.4.2 Applied research

UNIT – 3 Hypothesis of Research

- 9.1 Introduction
- 9.2 Meaning and definition of hypothesis
- 9.3 Characteristics of hypothesis
- 9.4 Sources of hypothesis
- 9.5 Functions of hypothesis
- 9.6 Limitations of hypothesis

UNIT – 4 Data Gathering Instruments

- 4.11 Introduction
- 4.12 Observation
- 4.13 Questionnaire
- 4.14 Interview

4.15 Survey

UNIT – 5 Sampling

- 5.1 Introduction
- 5.2 Meaning and definition of sample
- 5.3 Characteristics of good sampling
- 5.4 Needs and use of sampling
- 5.5 Types of sampling

UNIT – 6 Classifications and Presentation of Data

- 6.1 Introduction
- 6.2 Classification of data
- 6.3 Coding data
- 6.4 Tabular presentation of data
- 6.5 Graphic presentation of data

UNIT – 7 Research Design

- 7.1 Introduction
- 7.2 Meaning and definition of research design
- 7.3 Some important point to be consider while preparing the research design

PRACTICAL

A project preparation on home science related subjects by survey, interview, and questionnaire method.

RECOMMENDED READINGS

- A.N.Sadhu,(1980). Research methodology in social science, Bombay: Himalayas Publishing House,
- Dr. G.B.Singh, (2011). Research Methodology I, Jaipur: Paradis Publishers.
- M.N.Borse, (2004). Research Methodology, Jaipur: Shree Niwas Publications.
- Vandana Vohra, (2013), Research Methodology, Jaipur: Pratiksha Publication.
- B.M.Ratnakar,(2012), Research Methodology,New Delhi: Pmega Prakashan.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI

KITCHEN MODULAR DESIGN PAPER NO.3

DSE – 11

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES –

To enable the student to

- 1) To understand the factors influencing kitchen design of a family.
- 2) To acquire knowledge about the principles of kitchen planning, dimension of work centers and storage.
- 3) To develop skill in planning different kitchen layout considering different work centers of a kitchen.

THEORY

Unit 1 Kitchen as an important unit of a house.

1.1 Functions performed in a kitchen

1.2 Types of kitchen.

Unit 2 Principles at kitchen planning

2.1 Orientation and location

2.2 Size and shape

2.3 Ventilation and light

2.4 Socio economic status of a family

2.5 Culture and food habits of a family

2.6 Types of family

2.7 Cost of aesthetics

2.8 Storage need/storage space

2.9 Work center

2.10 Color and safety

2.11 Work counters

2.12 Traffic pattern

Unit 3 Types of kitchen**3.1** Floor types**3.2** Platform type

- L Shape
- U Shape
- One wall type
- Corridor type
- Two wall type etc

Unit 4 Materials used in kitchen**4.1** For floors**4.2** For walls**4.3** For ceiling**4.4** For storage**Unit 5 Essential services needed in kitchen****5.1** Water supply-

- Hot & cold
- Tap fitting
- Water purifying

5.2 Electricity services

- Electric current
- Air purifier
- MCB fuses
- Exhaust

5.3 drainage services-

- Waste water drainage system

5.4 waste disposal

Unit 6 Kitchen tools and equipments

6.1 hand operated tools & their locations

6.2 electrical equipments & their locations

PRACTICAL

- (1) Planning of a different kitchen layout on graph paper-
 - L Shape
 - U Shape
 - One wall type
 - Corridor type
 - Two wall type etc
- (2) Market survey of material used in kitchen (Any one)
 - For floors
 - For walls
 - For ceiling
 - For storage
- (3) Prepare a model of kitchen (any one)
- (4) Project based on- full economy, waste disposable (any one)

RECOMMENDED READINGS

- Deshpande R.S.:- Modern ideal home for India-united book corporation pune
- Dauglab Peter:- Kitchen planning & design
- Varghese M.A. & others:- Ergonomics in kitchen design.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI

CANTEEN MANAGEMENT PAPER NO.4

DSE – 12

(CREDITS: THEORY – 4, PRACTICAL – 2, TOTAL – 6)

OBJECTIVES –

To enable students to

- 1 To Understand the Principles of canteen management .
- 2 Prepare for canteen Jobs.

THEORY

Unit-I Introduction to canteen management

- Meaning
- Importance
- Characteristic of Canteen Management
- Steps for canteen management
 - a) Planning
 - b) Organising
 - c) Directing
 - d) Co Ordinating
 - e) Controlling
 - f) Evaluating

Unit-II Purchasing, storage & cooking

- Purchasing, Receiving & Storage
- Cooking & Presentation technique.
- Hygiene sanitation & safety

Unit-III Training & Account Keeping

- Meaning of training
- Need of Training
- Planning of Training programme for helpers
- Account keeping - types, Advantages and disadvantages.

Unit- IV Cost & Serving Balance

- Importance of Food cost control
- Factors affecting on Food cost control.

Unit- V Interior decoration of Canteen in Relation to Selection of

- 1) Color
- 2) Lighting
- 3) Music
- 4) Window curtains
- 5) Picture
- 6) Table setting
- 7) Floor Covering
- 8) Flower arrangement
- 9) Furniture arrangement
- 10) Wall Covering

PRACTICAL:

- 1 Quality Food production, Planning, organization, presentation and services of meals for (any one)
 - Birthday Party
 - Tea party
 - Festival Party
- 1 Visit to a canteen, Restaurant mess and dining area.(any one)
- 2 Plan and prepare an Ideal canteen and its arrangement(On Graph papre)
- 3 Project work: Planning & Running your own college canteen for students and allotted various duties to students in group – Like; Purchasing, Cooking, Accounting, Table setting, Serving and Helper (One day/Three days/One week)

RECOMMENDED READINGS-

- Running yours Own Restaurant.
- catering in schools and college
- Hotel Management.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI

ENTREPRENEURSHIP DEVELOPMENT IN WOMEN PAPER NO.5

SEC – 11

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES

To enables students to

4. Develop entrepreneurship skill
5. Understand the process and procedure of setting up small enterprise
6. Develop managerial skill for entrepreneurship development.

THEORY

Unit-1

- 1.5 Entrepreneurship development among women
- 1.6 Problems and constraints of women entrepreneurship.
- 1.7 Suggestion to improve working efficiency of entrepreneurship.
- 1.8 Importance and need for self employment.

Unit 2

- 2.1 Quality of good entrepreneur
- 2.2 Establishment of enterprise
- 2.3 Legal aspect and procedure to establish enterprise.

Unit 3

- 3.1 Entrepreneurship programs in India.
 - (A) Entrepreneurship development institute of India (E.D.I.)
 - (B) National Institute for Entrepreneurship and small business development (NIESBI)
 - (C) National Institute development bank of India (SIDBI)
 - (D) Small Industry development organization.
 - (E) National alliance of young entrepreneur.(NAYE)
 - (F) State Bank of India.
 - (G) National small industries corporation National Industry of small Industry extension training (NISJET)

- (H) Directorates of industries of the state government and state small industries corp.
- (I) Khadi and village industries commission(KVIC)
- (J) State financial corporation(SFCS)
- (K) Jilla Udyogkendra
- (L) Gujarat agricultural industries.
- (M) Industrial extension board.
- (N) Gujarat industrial and technical consultancy organization.

Unit 4

- 4.1** Putting a project proposal
- 4.2** Application form
- 4.3** Viable project proposal
- 4.4** Processing of proposal
- 4.5** License and quota
- 4.6** Registration security- guarantee retunes.

RECOMMENDED READINGS

6. Parekh U and Rao T.P.1978 – Personal efficiency in developing Entrepreneurship learning system- New Delhi.
7. Parekh U and Rao T.P. – Developing Entrepreneurship a handbook learning system New Delhi.
8. B.S. Rathore & J.S. Saini, B.R. Gurjan – Entrepreneurial opportunities in modernizing economy abhishek publication – Chandigadh.
9. Women and rural Entrepreneurship in Ind. D.D. Sharma, S.K. Dhameha Abhishekh Publication- New Delhi.
10. Indian entrepreneurship theory practice D.D. Sharma, S.K. Dhameha- Abhishekh Publication- New Delhi.

T.Y.B.H.Sc. (MAJOR – HOME MANAGEMENT) SEMESTER –VI

EVENT MANAGEMENT PAPER NO.6

SEC – 12

(CREDITS: THEORY – 2, PRACTICAL – 0, TOTAL – 2)

OBJECTIVES –

To enable students to

- 1) To prepare student for project management to the creation and development of festivals and event.
- 2) To provide knowledge for event planning process and tools and strategy

Theory

Unit 1 Introduction

- 1.1 Kinds of event management
- 1.2 Carrier in event management

Unit 2 Event planning

- 2.1 Event scheduling
- 2.2 Develop strategies for success
 - Make checklist
 - Create budget
 - Plan publicity
 - Timing
 - Organizing committee
 - Role of official
- 2.3 Key tips in developing the event plan

Unit 3 Event leadership

- 3.1 Growth opportunities for event leader
- 3.2 Developing the carrier
 - Mastering yourself
 - Effective timing management
 - Financial and accounting skill
 - Mastering in technology
 - Human resource skill
 - Event leadership carriers

Unit 4 Step of Successful event management

- 4.1 Techniques of market research
- 4.2 Qualitative and quantitative research
- 4.3 Validity and reliability
- 4.4 Produce considering effective events
- 4.5 Event design
- 4.6 Creative process in event research
- 4.7 Needs assessments and analysis

Unit 5 Creating of on premises event

- 5.1 Kinds of catering
- 5.2 Catering staff position
- 5.3 Policies of catering department
- 5.4 Challenges of catering department

RECOMMENDED READINGS

- (1) Swarup K Goyal 2010 Adhyayan publishers and distributers Darya Ganj New Delhi
- (2) Allen J Jarris R & Huyasken M Event Management Syndey University of Technology