

SYLLABUS BACHELOR OF SCIENCE

B. Sc. (Home Science) Part I Examination, 2020-21
B. Sc. (Home Science) Part II Examination, 2021-22
B. Sc. (Home Science) Part III Examination, 2022-23

Introduction:

Home Science as a field of Education is fully women oriented, preparing women for playing multifarious roles such as a professional career woman, an enlightened homemaker and awakened community worker.. Home Science syllabus has a built-in extension and outreach programme extending the knowledge to the masses. The requisitions of the department are directly in line with the focus of the eleventh plan fulfilling the key elements. The Home Science Department was established in the University in 1969 with Home Science only as a Subject in B.A. In 1991. B.Sc. Home Science programme was started in the department with an intake of 50 students per year. **The department became a Post Graduate department in 1999 offering specialization in M. Sc. (Final) in 3 areas-**

1. Clothing & Textile
2. Food & Nutrition
3. Human Development

BACHELOR OF SCIENCE General Information for Students

The course of study for the examination shall extend over a period of one year.

The examination shall be conducted by means of written papers and practicals wherever prescribed.

MEDIUM

Candidates are not allowed to use any medium other than English or Hindi for answering question papers. For answering question papers in the subject of English the medium will only be English. For answering question papers in the subject of Hindi the medium will only be Hindi.

Ekk/e %

fo|k|hZ dks iz'u&iz=ksa dk mRrj nsus ds fy, fgUnh ;k vaxzsth ds vfrfjDr vU; dksbZ ek;/e viukus dh vuqefr ugha gSA vxzsth iz'u&i= ds mRrj nsus ds fy, vaxzsth dh ek;/e gksxkA fgUnh iz'u&i= ds mRrj nsus ds fy, fgUnh gh ek;/e gksxkA

DIVISION

For a pass, a candidate must secure 36% marks in each subject in theory and practicals separately.

Division will be awarded as follows:

I Division – 60% of the aggregate marks

II Division – 48% of the aggregate marks

III Division – 36% of the aggregate marks

Division is awarded on the aggregate of marks of all the subjects.

Js.kh %

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ATTENDANCE

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1. For all regular candidates in the Faculties of Arts, Education and Social Sciences, Law, Commerce and Engineering, the minimum attendance requirement shall be that a candidate should have attended at least 71% of the lectures delivered and the tutorials held taken together as well as 70% of the practices and sessionals from the date of her/his admission.
2. Condonation of shortage of attendance: The shortage of attendance up to the limit specified below may be condoned on valid reasons:
 - a. Up to 6% in each subject plus 5 attendance in all in aggregate of the subject/papers be condoned by the Vice Chancellor on the recommendation of the Den/ Directory/ principal for under-graduate students and on the recommendation of the Head of the Department for the post Graduate classes.
 - b. The NCC/NSS Cadets sent out to parades and Camps and such students who are deputed by the University to take part in games, athletic or cultural activities may for purposes of attendance, be treated as present for the days of their absence in connection with the aforesaid activities and that period shall be added to their subject wise attendance.

Note : The attendance for supplementary student will be counted from the date of admission

B. Sc (Home Science) Part – I Examination and Teaching Scheme

No.	Subject	Periods		Theory		Practical	
		Th.	Pr.	Max. Marks	Min. Marks	Max. Marks	Min. Marks
I	Elements of Household Physics	3	2	50	18	30	11
II	Elements of Textile Science	3	2	50	18	30	11
III	Science of Human Development	3	2	50	18	30	11

IV	Elements of Nutrition & Food Science	3	2	50	18	30	11
V	Elements of Extension Education	3	3	50	18	30	11
VI	Applied Physics	2	-	50	18	-	-
VII	Applied Chemistry	2	-	50	18	-	-
VIII	Applied Biology	2	-	50	18	-	-
IX	Human Physiology	3	-	50	18	-	-
		25	11	450		150	--
Total							600
X	Hindi/English (Foundation course)	6	-	100	36	-	-

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Examination and Teaching Scheme

No.	Subject	Periods		Theory		Practical	
		Th.	Pr.	Max. Marks	Min. Marks	Max. Marks	Min. Marks
I	?kjsyw HkkSfrdh ds ?kVd	3	2	50	18	30	11
II	oL= foKku ds rRo & I	3	2	50	18	30	11
III	ekuo fodkl dk foKku	3	2	50	18	30	11
IV	iks"k.k ,oa [kk] foKku ds rF;	3	2	50	18	30	11
V	çlkj f'k{kk ds rRo	3	3	50	18	30	11
VI	vuqç;qDr HkkSfrdh	2	-	50	18	-	-
VII	vuqiz;qDr jlk;u foKku	2	-	50	18	-	-
VIII	vuqiz;qDr tho foKku	2	-	50	18	-	-
IX	ekuo 'kjhj fØ;k foKku	3	-	50	18	-	-
		25	11	450		150	--
Total							600
X	fgUnh@vxzsath(Foundation course)	6	-	100	36	-	-

B.

Sc (Home Science) Part – II
Examination and Teaching Scheme

Paper	Subject	Theory period per Week	Practical Period per Week	Examination Hours	Max. Mark	Min. Marks
Paper I	Human Development I (H.D. I) (Growth & Development: Prenatal and Infancy)	3	- *	-	50	36
Paper II	Human Development II (H.D. II) (Development Aspects: Infancy to Old age)	3	-	-	50	
Paper III	Home Management I (H. Mgt. I) (Principles of Home Management)	3	-	-	50	36
Paper IV	Home Management II (Housing and Home Furnishing)	3	*	-	50	
Paper V	Foods and Nutrition I (F.N. I) (Fundamentals of Nutrition Science)	3	- *	-	50	36
Paper VI	Foods and Nutrition II (F.N. II) (Bio-Chemistry)	3	-	-	50	
Paper VII	Clothing & Textile I (Cl.T. I) (Textile Fibers and Fabric Construction)	3	-	-	50	36
Paper VIII	Clothing & Textile II (Cl.T. II) (Textile Chemistry)	2	*	-	50	
Paper IX	Extension Education I (Teaching and Learning in Extension Education)	3	*	-	50	18

*Given Separately

1	2	3	4	5	6	7
Practical Human Development		-	3	-	30	11
Practical Home Management		-	3	-	30	11
Practical food and Nutrition (Bio-Chemistry)		-	3	-	30	11
Practical Clothing and Textile (Textile and Laundry)		-	3	-	30	11
Practical Extension Education		-	2	-	30	11

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Examination and Teaching Scheme

Paper	Subject	Theory period per Week	Practical Period per Week	Examination Hours	Max. Mark	Min. Marks
Paper I	o`f) ,oa fodkl] izlo iwoZ ,oa 'kS'kokLFkk	3	*	-	50	36
Paper II	fodkl ds igyqvksa% 'kS'kokLFkk ls o`)koLFkk rd	3	-	-	50	
Paper III	x`g izcU/ku ds fl)kUr	3	-	-	50	36
Paper IV	vkokl ,oa x`g ifjITtk	3	*	-	50	
Paper V	vk/kkjHkwr iks"k.k foKku	3	*	-	50	36
Paper VI	[kk] ,oa iks"k.k & II tSo jklk;u	3	-	-	50	
Paper VII	oL= foKku & II oL= js'ks rFkk oL= fuek.kZ	3	-	-	50	36
Paper VIII	oL= jlk;u'kkL= & III	2	*	-	50	
Paper IX	izlkj f'k{k esa f'k{k ,oa lh[kuk	3	*	-	50	18

*Given Separately

B. Sc (Home Science) Part – III Examination and Teaching Scheme

Paper	Subject	Theory period per Week	Practical Period per Week	Examination Hours	Max. Mark	Min. Marks
Paper I	Foods and Nutrition III F.N. III (Meal Planning and Diet Therapy)	3	*	-	50	36
Paper II	Foods and Nutrition IV F.N. IV (Food Science)	3	*	-	50	
Paper III	Home Management III H. Mgt. III (Family Economics)	2	-	-	50	36
Paper IV	Home Management IV H. Mg. IV (House Hold Equipment)	3	*	-	50	
Paper V	Human Development III (H.D. III) (Marriage and Family)	3	-	-	50	36
Paper VI	Human Development IV (H.D. IV) (Pre-School Children: Education, Guidance & Counseling)	2	*	-	50	
Paper VII	Clothing & Textile III (Cl.T. III) (Family Clothing and Historic Textile)	3	*	-	50	36
Paper VIII	Extension Education II (Ex. Edu.)	3	*	-	50	

	(Extension Education in Home Science and Rural Development)					
Paper IX	Foods and Nutrition V F.N. V (Community nutrition)	2	-	-	50	18

*Given Separately

1	2	3	4	5	6	7
Practical Meal Planning and Therapeutic Diets		-	3	-	25	-
Practical Food Science		-	2	-	20	-
Practical Home Management		-	3	-	30	-
Practical Human Development		-	3	-	25	-
Practical Clothing		-	3	-	30	-
Practical Extension Education		-	2	-	20	-

**B. Sc (Home Science) Part – III
Examination and Teaching Scheme**

Paper	Subject	Theory period per Week	Practical Period per Week	Examination Hours	Max. Mark	Min. Marks
Paper I	[kk] ,oa iks" k.k & III vkgkj fu;kstu ,oa vkgkj; fpfdRlk	3	*	-	50	36
Paper II	[kk] ,oa iks" k.k & IV [kk]&foKku ¼FN – 4)	3	*	-	50	
Paper III	x`g izcU/k & III ifjokfjd vFkZ'kkL=	2	-	-	50	36
Paper IV	?kjsyw midj.k	3	*	-	50	36
Paper V	HD III fookg vkSj ifjokj	3	-	-	50	
Paper VI	iwoZ 'kkyh; ckyd% f'k{kk] funsZ'ku vkSj ijke'kZ	2	*	-	50	36
Paper VII	ikfjokfjd oL= ,oa ,sfrgkfld oL= & IV	3	*	-	50	
Paper VIII	x`g foKku ,oa xzkeh.k fodkl esa çlkj f'k{kk	3	*	-	50	18
Paper IX	[kk] ,oa iks" k.k & V lkeqnkf;d iks" k.k	2	-	-	50	

*Given Separately

1	2	3	4	5	6	7
Practical Meal Planning and Therapeutic Diets		-	3	-	25	-
Practical Food Science		-	2	-	20	-
Practical Home Management		-	3	-	30	-
Practical Human Development		-	3	-	25	-
Practical Clothing		-	3	-	30	-
Practical Extension Education		-	2	-	20	-

B. Sc (Home Science) Part – I Examination – 2020-21

Paper - 1

Elements of Household Physics

M.M. : 50
Time : 3 p/w

UNIT-1 Ventilation

- Meaning, need and purpose
- Terms related to ventilation- infiltration, distribution and circulation
- Types- Natural ventilation, mechanical ventilation, whole house ventilation, spot ventilation, mix mode ventilation
- Ventilation for different climates

- e. Ventilation for different parts of the house- Kitchen, Bathroom and Bed room

UNIT- 2 Environment and its relation with human being

Heat

- i. Sources of heat – metabolic and environment
- ii. Heat exchange between human body and its surroundings- Conduction, Convection, evaporation and radiation
- iii. Factors affecting heat exchange between human body and the environment – climatic and non climatic
- iv. Health problems and control measures of - heat cramps, heat exhaustion, heat stroke, transient heat, fatigue

Cold

- i. Effect of cold on health and control measures

Energy

- ii. Meaning, Measurement and selection of energy
- iii. Introduction to Conventional and non conventional energy and their types

UNIT –3

Light

- i. Introduction and sources of light-
- ii. Properties of light
- iii. Factors affecting visual acuity- light intensity, freedom from dazzle, uniform lighting throughout the room, and steady level of illumination.
- iv. Colour- source of colour, physical and psychological properties of colour, responses of eye to colour, methods of producing colour
- v. Light pollution
- vi. Meaning and purpose of illumination
- vii. Health problems generated by light pollution and remedial measures

UNIT- 4 Noise and atmospheric pollution

(I) Noise in the house

Definition

Sources (indoors and Out door)

effect of noise auditory (loss of hearing), and non auditory- hypertension, hyperacidity, loss of concentration, interference with verbal communication

Measures taken for reducing noise levels in houses.

(II) Atmospheric pollution-

Definition

Source

Effect on health and control measures

UNIT- 5 Modern house hold equipments-

Introduction, parts, functioning, care and maintenance of –

- a. Dishwasher
- b. Microwave and its types
- c. Induction cooker
- d. Food processor
- e. Water purifier and its types
- f. Automatic washing machine
- g. Equipments work by Solar energy- Solar dryer and water heater

Practical Elements of Household Physics

M.M- 30
Internal – 10
External - 20
Time- 2p/w

1. Resource file
2. Parts , principle and working mechanism of equipment mentioned in theory
3. Market survey for the equipments and preparation of the report
4. Meter reading, fixing of fuse, gas cylinder fitting.
5. First aid for the sickness of heat and cold
6. Reading and recording of body temperature, blood pressure, pulse and sugar
7. Plan colour scheme for different rooms with the help of model.
8. Floor Decorations

Reference-

Leithead and Lind: Heat stress and heat disorder
Home & Interior: Anna hung Rutt
Home management: B. B. Swanson
Hosee hold ergonomics: Grandjean
Household Equipments: Peet & Picket

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MM&50
3 P/W

bdkbZ & 1 Igaou

- 1- vFkZ] vko';drk ,oa mi;ksfxrk
- 2- loagu ls IEcfU/kr 'kCn & fjluk] foHkktu] lapkj
- 3- izdkj & izkd`frd loagu] ;kfU=d loagu] iw.kZ x`g loagu] LFkku laogu] laogu ds fefJr izdkj
- 4- fofHkUu ekSleksa ds fy, laogu
- 5- x`g ds fofHkUu Hkkxksa ds fy, laogu & jlksbZ] Luku ?kj] 'k;u d{k

bdkbZ & 2 i;kZoj.k ,oa bldk ekuo thou esa IEcU/k

- 1- rki
v- rki ds L=ksr & vip;ksip; fØ;k,a ,oa i;kZoj.k
c- ekuo 'kjhj vkSj blds vklikl ds okrkj.k ds chp esa rki laogu & pkyu] laogu] ok"iu ,oa fodj.k
l- okrkj.k vkSj ekuo 'kjhj ds chp rki lapj.k dks izHkkfor djus okys dkjd & ekSleh ,oa fcuk ekSleh
n- LokLF; leL;k,Wa ,oa mudk fu;U=.k% Å"ek ,saBu] Å"ek dk fudkl] Å"ek izHkko] vLFkk;h ÅtkZ] QVhsd ¼Fkdku½
- 2- 'khr
v- LokLFk; ij 'khr dk izHkko ,oa mipkj
- 3- ÅtkZ
v- vFkZ] ekiu ,oa ÅtkZ dk pquko
c- ijEijkxr ,oa vijEijkxr ÅtkZ vkSj mlds izdkj

bdkbZ & 3

- 1- çdk'k
v- ifjp; ,oa izdk'k ds óksr
c- n`'; dh rh{.krk dks izHkkfor djus okys dkjd% izdk'k dh rhozrk] pdkpkSa/k ls vktkn] iwjs dejs esa ,d leku jks'kuh] izdk'k dk fLFkj Lrj
l- jax&jxa dh óksr] jax ds 'kkfjjhd ,oa ekufl d fo'ks"krk,a] jax ds izfr vka[kksa dh izfrfØ;k] jax mRiUu dh fof/k;kWa
n- izdk'k iznw"k.k
;- izdk'k dk vFkZ ,oa mi;ksfxrk
j- izdk'k iznw"k.k ls mRiUu gksus okyh LokLF; leL;k,a ,oa mipkj

bdkbZ & 4 /ofu ,oa okrkj.k çnq"kk

- 1- ?kjsyw ?ofu & ifjHkk"kk] óksr ¼vkUrfjd ,oa ckgjh½ /ouh dk izHkko & Jo.krk ¼Jo.k 'kfDr ds deh½ ,oa vJo.krk & mPpruko] vfr vEyrk] dsUnzrk esa deh] 'kkfCnd laokn ds lkFk IEcU/kA ?kjsyw /ouh Lrj dks de djus ds fy, iz;qDr fd;s tkus okys mik;
- 2- okrkj.k iznw"k.k & ifjHkk"kk] óksr] LokLF; ij izHkko ,oa mipkj

bdkbZ & 5

- 1- vk/kqfud ?kjsyq midj.k & vFkZ] Hkkx] dk;Z fof/k] ns[kHkky vkSj j[kj]kko
v- crZu /kkus ds midj.k ¼fM'kok'kj½
c- ekbØksoso vkSj blds izdkj
l- bUMD'ku dqdj
n- QwM izkslsj
;- okVj l;wfjQk;j ,oa blds izdkj
j- Lopkfyf okf'kax e'khu
y- lkSj ÅtkZ ls pyus okys midj.k & lkSj M^ak;j ,oa okVj ghVj

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MM&30
vkUrfjd & 10
Ckká & 20
2 P/W

- 1- óksr Qkby
- 2- Hkkx] fl)kUr ,oa midj.kksas ds fØ;k iz.kkyh ¼iz'u i= 1 ls IEcfU/kr½
- 3- midj.kksa dk cktkj losZ{k.k ,oa fjiksaZV cukuk
- 4- ehVj iBu] ¶;wt cukuk] xSl flys.Mj fQV djuk
- 5- rki vkSj 'khr ds chekj ds fy, izkFkfed fpdfRIk
- 6- 'kjhj ds rkieku] CyM izs'kj] iYl ,oa 'kqxj dks ukiuk ,oa fjdkMZ djuk
- 7- ekWMy ds enn ls fofHkUu d{kksa ds fy, jax ;kstuk cukuk
- 8- Q'kZ ITtk

Paper - II
Elements of Textile Science

M. M. : 50
Time : 3 p/w

Unit – 1

1. Importance of studying textiles, its relation to Home Science.
2. Essential properties of textile fibers.
3. Classification of textile fibers.
4. Identification of textile fibers

Unit – 2

1. Types of Textile fabrics.
2. Textile terminology
3. Fashion Terminology
4. The consumer's interest in fibers and fabrics

Unit – 3

1. Introduction to weaving
2. Terms used in weaving
3. Loom its parts and working
4. Knitting - Terminology and types of knits

Unit – 4

1. Fashion change and consumer acceptance
2. Careers in Fashion industry
3. Labeling of Textiles
4. Textile Research Associations

Unit – 5

General Principles of Clothing Construction:

- (1) Drafting & making paper pattern.
- (2) Taking body measurement for different types of garments.
- (3) Preparation of fabrics for Garment Making.
- (4) Estimation of material required for different garments
- (5) Laying out of patterns, cutting & marking

Practical
Elements of Textile Science

M.M- 30
Internal – 10
External - 20
Time- 2p/w

1. Part of sewing machine – equipment for measurement, planning, cutting and sewing
2. Construction process in garment making (samples)
 - a. Stitches
 - b. Seams
 - c. Darts, pleats, tucks, gathers
 - d. Mending, patches and darning
 - e. Different embroidery stitches (making their samples)
 - f. Knitting samples
3. Infant garment
Baby's layette – diaper, jhabla, bib,
4. Making of soaps and detergents.

References;

Anna Jacob: Art of Sewing
Corbman, B.P.: Textile Fiber to Fabric
Joseph, M.L.: Essentials of Textiles
Readers Digest: Complete guide to Sewing
Savitri Pandit: Manual for children's Clothing
Wingate, I.B.: Textile Fabrics and their Selection

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oL= foKku ds rRo & I

MM&50
3 P/W

bdkbZ & 1

- 1- oL= foKku i<+us dk egRo rFkk bldk x`g foKku ls IEcU/k
- 2- oL= js'kksa dh vko';d fo'ks"krkWa,a
- 3- oL= js'kksa dk oxhZdj.k
- 4- oL= js'kksa dh igpku

bdkbZ & 2

- 1- diM+k oL=ksa ds izdkj
- 2- oL= 'kCnkoyh
- 3- QS'ku 'kCnkoyh
- 4- miHkksDrk dh js'kksa rFkk oL=ksa es :fp

bdkbZ & 3

- 1- oL= cqukbZ dh izLrkouk
- 2- cqukbZ dh 'kCnkoyh
- 3- dj?ks dh dk;Ziz.kkyh
- 4- fufVax $\frac{1}{4}$ cqukbZ $\frac{1}{2}$ dh 'kCnkoyh ,oa izdkj

bdkbZ & 4

- 1- QS'ku cnyko rFkk miHkksDrk }kjk vuqeksnu
- 2- QS'ku m|ksx esa vkthfodk
- 3- oL=ksa ds lwpd i=
- 4- oL= vuqIU/kku laLFkk,Wa

bdkbZ & 5 oL= fuek.kZ ds lkekU; fl)kUr

- 1- M^akfVax rFkk isij iSVuZ dk fuek.kZ
- 2- fofHkUu izdkj ds oL=ksa ds fy, 'kjhj dk uki
- 3- oL= fuek.kZ ds fy, diM+s dh rS;kjh
- 4- fofHkUu oL=ksa ds fy, diM+s dk vkdyu
- 5- iSVuZ dk vfHkU;kl] dfVax rFkk vadu

**izk;ksfxd ijh{kk
oL= foKku ds rRo & I**

**MM&30
vkUrfjd & 10
Ckká & 20
2 P/W**

- 1- flykbZ e'khu ds Hkkx] uki ds midj.k] fu;kstu dfVax rFkk flykbZ
- 2- oL= fuek.kZ dh fof/k $\frac{1}{4}$ uewus $\frac{1}{2}$
- 3- Vkdsa
- 4- Lhou
- 5- MkVZ] lyhV] Vd] xSnj
- 6- ejEer] iScUn rFkk jQw
- 7- fofHkUu d'khnk Vkdas rFks muds uewus
- 8- cukbZ ds uewus
- 9- f'k'kq ds oL= & uotkr f'k'kq ds oL=] Mk;ij] >cyk] fcc
- 10- lkccu rFkk fMVjtsVA dk fuek.kZ

**Paper III
Science of Human Development**

**MM: 50
3 P/W**

Unit – 1

- a) 1. Meaning and importance of studying human development and family studies.
2. Concept of life span development.
- b) Development: definition of growth and development and the difference, Dimensions of development: Physical, Motor, Cognitive, Socio and emotional development
- c) Principles of development.
- d) Stages of human development and their importance.

Unit – 2

- a) Concept of developmental task and tasks of all the stages.
- b) Context of development: Introduction to concept of nature and nurture.
- c) Genetic inheritance: introduction to genes and number of chromosomes, Genotype and Phenotype.
- d) Context of development: Family, SES, gender and culture.

Unit – 3

Learning, Intelligence and Creativity

- a) Learning: meaning and principles.
 - i) Learning and reinforcement.
 - ii) Motivational factors in learning.
- b) Intelligence
 - i) Meaning definition and nature of intelligence.
 - ii) Development of Intelligence and factors influencing it: nutrition, stimulation and IQ.
- c) Creativity
 - i) Meaning and importance.

- ii) Relationship of intelligence and creativity.

Unit – 4

Socio-emotional and language development, concept of personality.

- a) Meaning and aspects of social development.
 - i) Acquiring social behavior.
 - ii) Understanding social rules.
 - iii) Developing social attitude
- b) Emotions
 - i) Meaning and difference between emotions and feelings.
 - ii) Functions of emotions
 - iii) Emotional needs of children: love, security, stability and attention.
- c) Personality
 - i) Definition and types of personality.
 - ii) Concept of mental health

Unit – 5

- a) Scope of the field of HDFS.
 - i) Opportunities for roles and employment.
 - ii) Researches on issues related to HD.
 - iii) Educationist: ranging from Preschool to University.
 - iv) Trainer
 - v) Planner of policies or programmes related to women & children.
 - vi) Implementing intervention for different aspects related to HD (including special education)
 - vii) Counselor
- b) Setting & availability
 - i) Early childhood care & education.
 - Preschool Centers
 - Crèches
 - Hobby resource centers
 - Early stimulation programme
 - ICDS and anganwadies
 - ii) Family welfare programmes.
 - Family welfare programmes
 - Child welfare programmes
 - Programmes for the care of elderly
 - Organizations related to advocacy
 - iii) Children with special needs.
 - Specialization counseling centers
 - Schools (as planners)
 - Early intervention
 - Development testing

Practical Science of Human Development

M.M- 30
Internal – 10
External - 20
Time- 2p/w

2. Child Development

- i. Making a growth enhancing toy/material
- ii. Preparation of resource file containing
 - a. 10 stories for children
 - b. 10 songs for children
 - c. Collect 10 current articles on child development from news paper/magazines etc. and its display on board.
- iii. Prepare a chart/flip/book/album depicting all the stages of human development covering at-least one developmental task at each stage.
- iv. Techniques of anthropometric measurement (height, weight and head circumstances)
- v. Accidents and emergencies in childhood and their first aid
Electric shock, foreign body in nose, ears and eyes, animal bite: dog, snakes and insects and burns.

Books reference

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isij III
ekuo fodkl dk foKku

MM&50
3 P/W

bdkbZ & 1

- 1- v- ekuo fodkl vkSj ifjokfjd v/;;u dk vFkZ vkSj egÙkk
c- thou & dky fodkl dk vizR;;
- 2- fodkl % o`f) ,oa fodkl dh ifjHkk"kk vkSj muesa vUrjA fodkl ds vk;e% 'kkjhfd] fØ;kRed]
laKkRed] lkekftd vkSj laosxkRed fodkl
- 3- fodkl ds fl)kUrksa
- 4- ekuo fodkl dh voLFkk,Wa ,oa mudh egÙkk

bdkbZ & 2

- 1- fodklkRed dk;Z dh vo/kkj.kk vkSj IHkh voLFkkvksa ds dk;Z
- 2- fodkl ds izlax esa % izd`fr vkSj iks"k.k dh vo/kkj.kk ls ifjp;
- 3- thUI }kjk oa`kkuqØe% thUI vkSj ØksekslksEI dh la[;k] thuksVkbi vkSj QhuksVkbi
- 4- fodkl ds IUnHkZ esa% ifjokj] SES fyax vkSj laLd`fr

bdkbZ & 3

- 1- vf/kxe] cqf) vkSj l`tukRedrk
v- vf/kxe% vFkZ vkSj fl)kar
c- vf/kxe vkSj lqn`f<+dj.k
l- vf/kxe esa izsjd dkjd
- 2- cqf)
v- vFkZ] ifjHkk"kk vkSj cqf) dh izd`fr
c- cqf) dk fodkl vkSj mls izHkkfor djus okys dkjd% iks"k.k] mÙkstuk vkSj cqf)yfo/k
- 3- l`tukRedrk
v- vFkZ vkSj egÙkk
c- cqf) ,oa l`tukRedrk esa ikjLid IEcU/k

bdkbZ & 4 lkekftd & laosxkRed vkSj Hkk"kk fodklA O;fDrRo dk laizR;;

- 1- lkekftd fodkl dk vFkZ vkSj mlds igyq
v- lkekftd O;ogkj dh izkflr
c- lkekftd fu;eksa dks le>uk
l- lkekftd O;ogkj dk vf/kxzg.k
- 2- laosx
v- laosx vkSj vuqHkwfr;ksa dk vFkZ ,oa vUrj
c- laosxks dk dk;Z
l- ckydksa dh laosxkRed vko';drk% Lusg] lqj{kk] fLFkjr vkSj /;ku
- 3- O;fDrRo
v- ifjHkk"kk vkSj O;fDrRo ds izdkj
c- ekufld LokLF; ds vizR;;

bdkbZ & 5

- 1- HDFS {ks= dk foLrkj
v- Hkwfedk vkSj jkstxkj ds volj
c- ekuo fodkl ds 'kkS/k ls IEcfU/kr eqlsa
l- f'k{kkfon~% iwoZ'kkyk ls fo'ofokj; rd
n- izf'k{k
;- efgyk ,oa ckydksa ls IEcfU/kr uhfr;kWa ,oa izksxzke ds ;kstuk dÙkkZ
j- ekuo fodkl ds fofHkUUk igyqvksa ls IEcfU/kr gLr{ksi dks dk;fUo;u djuk ¼fok"V f'k{kk
lfgr½
y- ijke'kZnrk
- 2- lsafVx vkSj miyC/krk
v- izkjfEHkd ckY;koLFkk ns[kHkky vkSj f'k{kk ¼ECCE½
c- iwoZ'kkyh; ØsUn
l- Øsp
n- :fp lalk/ku ØsUnz
;- izkjafHkd mÙksftr izksxzke
j- ICDS vkSj vkWxuokMh
- 3- ikfjokfjd dY;k.k ;kstuk,Wa
v- ifjokj dY;k.k ;kstuk,Wa
c- cky dY;k.k ;kstuk,Wa
l- o`)ksa dh ns[kHkky ds izksxzke
n- odykr ls IEcfU/kr laLFkk,a
- 4- ckyd ftUgsa fo'ks"k ns[kHkky dh vko';drk gS
v- fo'ks"k ns[kHkky okys ijke'kZ dsUnz
c- fokj; ¼;kstukdkjksa ds :lk esa½
l- le; ls igys gLr{ksi

**izk;ksfxd
ekuo fodkl dk foKku**

**MM&30
vkUrfjd & 10
Ckká & 20
2 P/W**

- 1- cky fodkl
v- o`f) ds c<+kus okys f[kykSus] lkexzh
c- lalk/ku Qkby dks cukuk ftlesa
- 10 ckydksa dh dgkfu;kWa
 - 10 ckydksa ds xkus
 - 10 rkts lekpkj cky fodkl ij lekpkj i=ksa ls@eSdftUI bU;kfn esa ls vkSj mUgsa cksMZ ij izn'kZu
- l- de ls de ,d fodklRed dk;Z dks ekuo fodkl dh lHkh voLFkvkksa esa ls izn'kZr djrs gq, ,d pkVZ@fYki@,yce cukb;sa
- n- ekuo fer; ¼vaFkzksiksesfV^ad½ uki dh rduhd ¼yEckbZ] otu vkSj 'kh"kZ dk ?ksjk½
;- ckY;kolFkk esa nq?kZVuk vkSj vkikr dky vkSj mldh izkFkfed fpdfRIk% fctyh dk djaV] vka[k] dku] ukd esa cká ink'kZ
Tkkuoj dk dkVuk % dqÚkk] lkWi vkSj fcPNq vkSj tyuk

**Paper - IV
Elements of Nutrition and Food Science**

**MM – 50
3P/W**

Unit – 1

- Food meaning, functions, classifications.
Food groups, characteristics of food groups balanced diet. Recommended daily allowances for various age groups ICMR.
Food preparation.
- a. Reasons for cooking.
 - b. Principles of food preparation.
 - c. Methods: classification, procedure, merits and limitations.
 - d. Effect of cooking.
 - I. Food constituents, chemical, physiochemical and microbiological.
 - II. On nutritive value of food.

Unit – 2

- Factors affecting selection of food, availability, economy, importance of colour, texture and flavour of food, quality, socio-cultural etc.
Objective in the study of food retention of nutritive value, development of flavour and palatability, control of economy, improvement of digestibility, preservation of quality and safety.

Unit – 3

- Physio-chemical properties of food, study of composition colloids, osmotic pressure hydrogen ion concentration (pH), Bound water in foods.
Methods of improving nutritional quality of food germination, fermentation, supplementation fortifications.

Unit – 4

- Food Preservation.
- a. Definition.
 - b. Causes of food spoilage.
 - c. Importance of preserving foods.
 - d. Principles of food preserving.
 - e. Methods of food preservation home and commercial.

Unit – 5

- Food packaging
1. Introduction.
 2. Packaging: concepts, significance & functions.
 3. Classification of packaging materials: flexible package, rigid package, retail or shipping containers.
 4. Interactions between packaging and food toxicity hazards.
 5. Biodegradable materials and environment issues.
 6. Labeling requirements

- a) Nutrition labeling
- b) Nutrition claims
- Coding of food products
- 7. Packaging laws and regulation

**Practical
Elements of Nutrition and Food Science**

M.M- 30
Internal – 10
External - 20
Time- 2p/w

- (i) Cookery:
Terms, weight & Measures, principles for designs in lying of meals, types of serving
- (ii) Cooking Methods
Demonstration of methods: Boiling, Steaming, Baking, Roasting and Frying (Shallow & Deep)
- (iii) Preparation of Five dishes each of the following:
 - a. Drinks, Soups
 - b. Snacks, Raita & Chutney
 - c. Vegetables, Pulses, Salads
 - d. Rice preparation Pulav, Biryani etc.
 - e. Sweets deserts and Ice Cream
 - f. Cakes & Biscuits
 - g. Demonstration on Cake Icing
 - h. Food Preservation – Jam, Jelly, Pickle, Sauce, Vegetables. Drying
- iv) Theme parties with decoration
 - a. Festivals, birthdays etc.

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2. Palmer: Food Theory and Application.
3. Charley, H.: Food Science.
4. Shakuntala Manay: Food Science.
5. Marry and Benin: Introductory Food.
6. Griswald: The Experimental Study of Food.
7. Peckam, L. H.: Food Chemistry.
8. Shadakshar Swamy: Food Foundation.

**isij IV
iks" k.k ,oa [kk] foKku ds rF;**

**MM&50
3 P/W**

bdkbZ & 1

- 1- [kk] dk vFkZ] dk;Z] oxhZdj.k
[kk] lewg & [kk] lewg dh fo'ks"krk;sa] lUrqfyr vkgkj fofHkUu oxZ ds vk;q vuqlkj iks"kd rRoksa dh ICMR }kjk nSfud ek=k
Hkkstu idkus dh dyk
v- Hkkstu idkus ds dkj.k
c- Hkkstu idkus ds fl)kUr
l- Hkkstu dh fof/k;ksa dk oxhZdj.k blds ykHk ,oa dfe;kWa
n- Hkkstu idkus dk izHkko
- 2- fofHkUu [kk] inkFkksaZ ij jklk;fud] HkkSfrd ,oa tSodh; izHkko
- 3- [kk] inkFkksaZ ds ikSf"Vd ewY;ksa ij izHkko

bdkbZ & 2

- 1- HkksT; inkFkksaZ ds p;u dks izHkkfor djus okys dkjd HkksT; inkFkksaZ dh miyC/krk] vkfFkZd vk/kkj] jax dh egRrk] cukoV ,oa xU/k] xq.kr ,oa lekftd lkaLd` frd izHkko
- 2- Hkkstu dh ikSf"Vdrk dks laxzfr gsrq ;ksX; m}s'k; lqxU/k cuk;s j[kuk] [kkus ;ksX; cukuk] vkfFkZd cpr] ipus dh {kerk dks c<kuk] xq.kr dks lafpr j[kuk ,oa u"V gksus ls cpko

bdkbZ & 3

- 1- Hkkstu dh HkkSfrd jklk;fud fo'ks"krk;sa] laxBu dk v/;u] dkSykbWMI] jld" kZ.k ncko] gkbM^a kstu vk;u dh lkUnzrk ¼PH½] HkksT; inkFkksaZ esa ck/; ty] Hkkstu dh xq.kr dks lq/kkjus gsrq fofHkUu fof/k;kWA& vadqj.k] fd.ou] lEiwjdrk] izcyhdj.k

bdkbZ & 4 Hkkstu dk laj{k.k&

- 1- ifjHkk"kk
- 2- Hkkstu ds [kjc gksus ds dkj.k
- 3- Hkkstu ds laj{k.k dh egRrk

- 4- Hkkstu laj{k.k ds fl)kUr
- 5- ikjEifjd ,oa O;olkf;d :lk ls HkksT; inkFkksaZ dh laj{k.k fof/k;kWa

bdkbZ & 5 HkksT; inkFkksaZ dh iSfdax

- 1- izLrkouk
- 2- iSafdx% rF;] egRrk ,oa dk;Z
- 3- iaSfdx gsrq iz;ksx gksus okyh lkezxh & yphyh iSfdax] Bksl iSafdx] tgkt gsrq iz;ksx gksus okys dUVsuj
- 4- iSfdx fof/k;kWa
- 5- ueh ls cpko gsrq jksdFkke fof/k;kWa & lkezxh dk p;u o fo'ks"k xq.k okyh iSafdx lkezxh
- 6- iSafdx rFkk HkksT; inkFkksaZ ds nwf"kr gksus okys leU;o;
- 7- tSo jklk;fud lkezxh ls okrkj.k dks izHkkfor gksus dk [krjk
- 8- yscy gsrq iz;ksx&
 - v- ckj dksfMaax
 - c- iks"k.k gsrq yscy dk iz;ksx
 - l- ikSf"Vdrk gsrq izkFkfed rF;
 - n- HkksT; inkFkksaZ dh vyx ls dksfMax
 - ;- iSafdx gsrq fu;e ,oa vo/kkj.kk;sa

**izk;ksfxd ijh{kk
iks"k.k ,oa [kk] foKku ds rF;**

**MM&30
vkUrfjd & 10
Ckká & 20
2 P/W**

- 1- ikd dyk & 'kCnkoyh] uki ,oa rksy] Hkkstu ijklus dh dyk] ijklus ds fofHkUu izdkj
- 2- ikd fof/k;kWa & izR;{khdj.k }kjk% mckyk] Hkki fof/k] csafox] lsaduk] ryuk ¼xgjh ,oa mFkyh fof/k½
- 3- ikWap O;atu cuk;sa] bu fof/k;ksa dks viukrs gq;s&

- is; inkFkZ] lwi
- uk'rs ds O;atu] jk;rk ,oa pVuh
- lfCt;kWa] nkys] lykn
- pkoy ds O;atu & iqyko] fcj;kuh
- feBkb;kWa] ehBs O;atu] vkblØhe
- dsd ,oa fcLdqV
- dsd ij vkbflax dk izR;{khdj.k
- Hkkstu laj{k.k & tSe] tsyh] vpkj] lkwI] lfCt;ksa dks lq[kkuk
- fo'ks"k ikfVZ;ksa ij vk;kstu ,oa ITtk
- fofHkUu R;ksgkj ,oa tUefnu

izLrkfor fdrkcsa%&

- 1- QwM lkbal & 'kdqUryk esus
- 2- QwM Qkm.Ms'ku & InkD'kj Lokeh
- 3- QwM lkbal & ukWjeu

**Paper - V
Elements of Extension Education**

MM – 50
3 p/w

Unit – 1 Introduction of Extension education:

- a) Concept of Education, Non formal , Formal, Informal and Extension Education
- b) Objectives of Extension Education
- c) Function and Scope of Extension Education
- d) Principles of Extension Education
- e) Process of extension education.
- f) Qualities of an Extension worker
- g) Philosophy of extension education

Unit- 2 Introduction to Communication

- a. Meaning
- b. Is communication an Art or Science
- c. Elements of Communication and their characters ties- communicator, message, channels, treatment of message, Audience and audience response
- d. Commandments of good communication
- e. Seven C,s of Communication
- f. Objective of communication
- g. Self confidence for effective communication

Unit- 3 Communication Media and Information technology

- a. Folk Media- meaning, Importance and Types

- b. Electronic media- media and advantage
- c. Importance, advantage and disadvantage of Radio
- d. Telecommunication (meaning and use in communication only)- Television, Telephone, mobiles, video conferencing, E- mail, Fax,
- e. Information technology and its use in education, factor effecting selection of technology
- f. Advantages and disadvantages of mechanization of communication

Unit 4 : Communication for Extension :

- (i) Formal and informal communication- their types, advantages and disadvantages
- (ii) Effective writing- objectives, essentials and media of written communication,
- (iii) Art of listening in communication- good listening, principle and guidelines for effective listening
- (iv) Effective speaking- principles, guidelines and styles and media for oral communication

Unit- 5 - Communication of Innovation :

- a) Concept of Innovation
- b) Characteristics of Innovation
- c) Adoption Process
- d) Factors affecting the adoption of Innovation
- e) Adopters categories

**PRACTICAL
Elements of Extension Education**

M.M- 30
Internal – 10
External - 20
Time- 3p/w

- (I) Developing skills in puppet as folk media-
 - Preparation of puppets
 - Prepare script for puppet play on any social issue
 - Present puppet show
- (II) Prepare scrap book contains different electronic media
- (III) Writing success stories to present on Radio
- (IV) Visit to training and development organization
- (V) writing report of the same visit

Reference :-

- Dhama, O.P. & Bhatnagar, O.P. : Education and Communication for Development, 1987
 Dhama, O.P. & Bhatnagar, O.P. : Communication for Development, 1991
 Mandal, S. & Ray, G.L., A text Book of Rural Development, 2007,
 Ray, G.L., Extension Communication and management, 1999, Nays Prakashan, Calcutta
 Reddy, A.A. , Extension Education, 1976, Shree laxmi press, Bapla, A.P
 Extension Education in Community Development, Directorate of Extension Education, GOI, New Delhi
 Supe, S.V. : An Introduction to Extension Education.

**isij v
çlkj f'k{kk ds rRo**

MM&50
3 P/W

bdkbZ & 1 izlkj f'k{kk dk ifjp;

- 1- f'k{kk dk ladYiuk@vo/kkj.kk] vkSipkfjsrj f'k{kk] vkSipkfjd f'k{kk] vukSipkfjd f'k{kk ,oa izlkj f'k{kk
- 2- izlkj f'k{kk ds mls';
- 3- izlkj f'k{kk ds dk;Z ,oa {ks=
- 4- izlkj f'k{kk ds fl)kUr
- 5- izlkj f'k{kk dh izfØ;k
- 6- ,d izlkj dk;ZdÜkkZ ds xq.k
- 7- izlkj f'k{kk dk n'kZu

bdkbZ & 2 lapkj dk ifjp;

- 1- vFkZ
- 2- lapkj ,d dyk vkSj foKku gS
- 3- lapkj ds rÜo vkSj mudh fo'ks"krk,Wa & lapkj] IUns'k] ek;/e] IUns'k dk izfriknu] Jksrk vkSj Jksrk izfØ;k
- 4- vPNs lapkj dk fu;kstu
- 5- lapkj ds lkr c_s
- 6- lapkj ds mls';
- 7- izHkkoh lapkj ds fy, vkRefo'okl

bdkbZ & 3 lapkj ek;/e vkSj lwpuk çkS|ksfxdh

- 1- yksd ek;/e& vFkZ] egÙo vkSj izdkj
- 2- bysDV^akWfud ek;/e& ek;/e vkSj ykHk
- 3- jsfM;ks dk egÙo] ykHk vkSj gkfu;kWa
- 4- Vsyhlapkj ¼vFkZ vkSj flQZ lapkj esa iz;ksx½ Vsyhfotu] VsyhQksu] eksckbZy] fofM;ks dkWUYasflax] bZ&esy] QsDI
- 5- Lkwpuk çkS|ksfxdh vkSj bldk f'k{kk esa mi;ksx] izkS|ksfxd ds p;u dks izHkkfor djus okys rÙo
- 6- Lakpkj dh e'khuhdj.k ds ykHk o gkfu;kWa

bdkbZ & 4 lapkj ds fy, çlkj

- 1- vkSipkfd vkSj vukSipkfd lapkj & buds izdkj] ykHk vkSj gkfu;kWa
- 2- izHkkoh ys[ku & fyf[kr lapkj ds mls';] vfuok;Zrk vkSj ek;/e
- 3- lapkj ds lquus dh dyk & vPNk lquuk] fl)kUr vkSj izHkkoh lquus ds fy, fn'kk funsZ'k
- 4- izHkkoh cksyuk & ekSf[kd lapkj ds fl)kUr] fn'kk funsZ'k] vankt vkSj ek;/e

bdkbZ & 5 uokpkj dk lapkj

- 1- uokpkj dh vo/kkj.kk
- 2- uokpkj dh fo'ks"krk,a
- 3- vaxhdj.k izfØ;k
- 4- uokpkj ds vaxhdj.k dks izHkkfor djus okys rÙo
- 5- vaxhdrkZ Jsf.k;kWA

**izk;ksfxd ijh{kk
çlkj f'k{kk ds rRo**

MM&30
vkUrfjd & 10
Ckká & 20
3 P/W

- 1- yksd ek;/e ds :lk esa dBiqryh esa dkS'ky fodkl
v- dBiqryh dh rS;kjh
c- fdLh lkekftd eqls ij dBiqryh lys ds fy, fLØIV rS;kj djuk
l- dBiqryh 'kks fn[kkuk
- 2- fofHkUu bysDV^akWfud ek;/e;ksa esa LØsi cqd dUVsUV rS;kj djuk
- 3- jsfM;ks ij fyf[kr IQy dgkfu;kWa lqukuk
- 4- izf'k{k.k ,oa fodkl laxBu dk Hkze.k
- 5- mlh Hkze.k ij fjiksVZ fy[kuk

**Paper VI
APPLIED PHYSICS**

MM – 50
2P/W

Unit – 1 : Current Electricity :

Primary and secondary cells and there, E.M.F. Series and parallel arrangement of cell Ohm:s law, definition of ampere, ohm, watt, kilowatt hour, Parallel and series Connection of resistances Potential-differences. Direct and alternating currents Magnetic effects of current, moving coil galvanometer, ammeter, voltmeter, Faraday's law of electromagnetic – induction, electromagnet, Electric bell, transformer, and motor dynamo Chemical Effects:
Flow of current in a solution, Laws of electrolysis electroplating techniques of cleaning of silverware, application of electrolysis in Industry

Unit – 2 : Household Appliance :

Heating device:
Relation between electric energy and heat
Elements used in thermal equipments, Electric Iron, toaster, coffee percolator, heater, cooking ranges, water heater, geyser, electric mattresses and blanket, room heater, central heating
Refrigeration appliances: Refrigerators, Air-coolers, Air-conditioning
Mechanical appliances: Different types of pumps, cycle pumps, stove and booster water pump
Other appliances: Fan, washing machine, vacuum cleaner, electric sewing machine

Unit – 3 : Household fitting :

Electric lighting:

- Source of light: incandescent lamps, Fluorescent tubes, sodium, and mercury lamps neon sign, lamps with internal reflector
- Distribution of electricity in a house, phase, neutral and earth wires, cables fuse, plug switches
- Measurement of electric power, watt meter
- Effect of electricity on human body
Domestic illumination, unit of intensity of illumination and illuminating power, illumination requirements of various rooms.
Methods of Internal illumination, Direct and indirect, domestic water-supply for city, for house water tap, Flush latrine

Unit – 4 : Modern Physics :

Photoelectric effect: Photocell and their application.

Discharge of electricity, through gases-Cathode rays, X-rays solid state.

- Semi conductors and insulators, Elementary idea of transistors
- Television: Persistence of vision, principles of T.V. receiver, color T.V.
Satellites: Uses of satellites in long distance communication T.V., weather forecasting and remote sensing

Unit – 5 : Sound :

Sound, Source of sound of transmission of sound waves

Velocity of sound, frequency, wave length, Reflection, refraction and diffraction

Absorption of sound-elementary ideas of acoustics building, intensity of sound

Ultrasonic applications in diagnosis, ranging and engineering

Musical sound instruments:

- Characteristics of sound: Loudness, pitch and quality
- Resonance, beats
- Musical scale-diatonic and tempered
- Musical instruments: Sitar, Harmonium and flute
- Human voice, Ultrasonic by bat
- Transmission of sound by telephone
- Recording and reproduction of sound gramophone, tape recorder, recording and reproduction of sound in motion pictures

isij VI vuqç;qDr HkkSfrdh

MM&50
2P/W

bdkbZ & 1 fo|qr /kkjk

fo|qr /kkjk% izkFkfed ,oa f}rh;d lsy o mudk fo|qr okgd cy] lsayksa dh Js.kh ,oa lkekUrj la;kstu] vkse dk fu;e] ifjHkk"kk,a & ,fEi;j] vkse] okV] fdyksokV ?kaVk] lekUrj ,ao Js.kh izfrijks/kksa dk la;kstu & laHkkfor vUrj] oSdfYid /kkjk] lh/kh /kkjk /kkjk dk pqEcdh; izHkko] xsyosuksehVj] vehVj] foHkoekih fo|qr pqEcdh; izsju dk fu;e] fo|qr pqEcd] fo|qr ?kaVh] V^akalQkeZj ,oa pkyd tfu= jk;fud izHkko

foy;u esa /kkjk izokg] fo|qr vi?kVu dk fu;e] fo|qr ysiu dh rduhd] pkanh dh oLrqvksa dh lQkbZ] fo|qr vi?kVu dk m|ksxksa esa mi;ksx

bdkbZ & 2 ?kjsyq midj.k

Å"ek okys midj.k& fo|qr ÅtkZ o Å"ek esa laca/k] Å"eh; ;a=ksa esa mi;ksx gksus okys rF; & fo|qr bL=h] VksLVj] dkWQh ijD;wysVj] ghVj] dqadhx jsat] okVj ghVj] xhtj] fo|qr xn~nk ,oa dEcy] :e ghVj] lsUV^ay ghVhxa

iz'khru ;U=% jsYhtjsVj] ;j&dwj] ;j&daMh'kfuax

;kf=d midj.k % iEi ds izdkj] pØh; iEi] LVko o cqLVj] okVj iEi

vU; midj.k % ia[kk] ok'kax e'khu] oSD;we Dyhuj] fo|qr flykbZ e'khu

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1- fo|qr izdk'k%

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c- ?kj esa fo|qr dk forj.k] dyk] mnklhu ,oa vFkZ rkj] dscy ¶;wt

l- izdk'kh; 'kfDr dk ekiu] okWVehVj

n- ekuo 'kjhj ij izdk'k dk izHkko& ?kjsyq jks'kuh] jks'kuh dh bdkbZ] ÅtkZ

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**Paper VII
APPLIED CHEMISTRY**

MM – 50
2P/W

Unit – 1 : Water – Soft and hard water, methods of removing hardness of water, drinking water and laundry water, estimation of water hardness

- a. Lubricants- Properties, classification and uses
- b. Dyes classification, based on application and functional group
- c. Fertilizers and manures : uses
- d. Freon Gas Composition and uses

Unit – 2 : 1. Tarnishing of metals, its Prevention and removal, Metal polishes: Organic coatings paints, pigments, wood polishes, shoe polish

2. Elementary idea of the chemistry of the following:
 - a. Polymers- classification and their uses
 - b. Bleaching powder, plaster of Paris
 - c. Soap, detergent and waxes

Unit – 3 : Fuels :

- Classification, calorific value
- Solid fuels – Wood, coal, types and selection
- Liquid fuels- Petroleum, fractionation
- Gaseous fuels- Bio gas, LPG, oil gas, coal gas.
- Producer gas, Water gas
- Non conventional fuel-Solar energy

Unit – 4 : Environmental pollution and its effect on human being eg. (C4 H5), Pb, Carbon monoxide and oxides of nitrogen sulphur dioxide, organic and mineral pollution of water, COD and BOD, Abrasives and adhesives

Unit – 5 : Chemotherapy

1. Common drugs and medicines, used at home
2. Narcotics and effects of over drugging – L.S.D. Heroine, Brown Sugar
3. Uses and Hazards of:
 - a. Cosmetics
 - b. Food preservatives and their effects on human body
 - c. X-ray and Isotopes eg. Co. 60, I181, p35, A74
 - d. Common insecticides, pesticides, and rodenticider eg., DDT, BHC, Aldrin gamexene, 2no
 - e. Antiseptics and Disinfectants

**isij VII
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MM&50
2 P/W

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- 3- moZjd ,oa [kkn ds mi;ksx
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- 1- oxhZdj.k] dSyksjh eku
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- 4- xSlh; bZ/ku& ck;ksxSl] ,yihth] rsy xSl] dksy xSl
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 - 2- u'kk vkSj mldh vf/kdrk ds izHkko% ,y,IMh] ghjksbu czkmu 'kqxj
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Paper VIII APPLIED Biology

MM – 50
2P/W

Unit – 1

Harmful pests to man: Outline of life history and control of rice weevil, khapra beetle, cockroach and termites.

Unit – 2

Human genetics: Human chromosomes normal and abnormal karyo types. Heredity and environment relationship as revealed by studies on human twins.

Unit – 3

Elementary idea of heredity human diseases and genetic abnormalities such as haemophilia, colour blindness, phenyl ketonuria, sickle cell anemia, mongolism and leukemia.

Unit – 4

- a) Gardening : Introduction to home gardening.
Preparation and requirement of roof and veranda gardening and their management.
- b) Kitchen Garden: Principle for planning of kitchen garden.
 - i. Cultivation of vegetables, e.g. potato, tomato, cauliflower, carrot, cowpea and cucumber.
 - ii. Cultivation of fruit trees for example Papaya, Guava, Lemon, Ber, Pomegranate (Anar).

Unit – 5

Economic Botany: Botanical names, family distribution and plant parts and their uses:

- a. Fibres: cotton, jute and coir.
- b. Beverages: tea, coffee and cocoa.
- c. Spices and condiments: cloves, cardamom, cumin, cinnamon, coriander, fennel, turmeric, pepper, asafoetida.
- d. Oils: coconut, groundnut, mustard, safflower, sunflower.
- e. Adulteration in oil and condiments (spices).

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6. Agarwal, Kotpal and Khaterpal: A Text Book of Zoology (Invertebrate Zoology).
7. Tendon and Nigam: A Text Book of Zoology.
8. Adrian and Ray: General Genetics, Modern Asia Edition.
9. Genetics: A Survey of Principles of Heredity, Winchester, Indian Edition.
10. Verma and Agarwal: Cell Biology and Genetics.

isij VIII vuqiz;qDr tho foKku

MM&50
2 P/W

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1- euq"; ds fy, ?kkrd dhV% thou pØ ,oa jksdFkke& jkblosohy] [kijk chVy] dkWdjksps] nhed

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Paper IX HUMAN PHYSIOLOGY

MM – 50
4P/W

An elementary knowledge of subject is expected

Unit –1 : 1. Types of tissues

2. The skeletal system
 - a. Classification structure and functions of bones
 - b. The joints-classification, structure of a typical synovial joint
3. The muscular system: types of muscles, structure and functions

Unit –2 : 1. The nervous system:

- a. Structure and functions of brain and spinal Cord
- b. Autonomous Nervous system in brief
2. The Respiratory system: Structure and functions of Respiratory organs. Mechanism of respiration, External and Internal tissue respiration, vital capacity, Regulation of Breathing

Unit –3 : The vascular system:

- a. Composition and function of blood, blood groups, blood transfusion, blood banks, blood clotting
- b. Structure and functions of heart, blood vessels, blood circulation in the body, blood pressure and pulse rate

Unit –4 : The Digestive systems:

Structure and functions of the digestive organs, mechanism of digestion and absorption of proteins, fats and carbohydrate

The Excretory System:

- a. Structure and function of excretory organs, composition of Urine
- b. Structure and function of skin, regulation of body temperature

Unit –5 : The Endocrine system:

Endocrine glands of the body, role of hormones and effects of hypo and hyper activity

Structure and function of eye

Structure and function of ear

REFERENCE

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A Text book of Medical Physiology: Guyton holt Saunder & Co.

Evelyn Pearce: Anatomy and Physiology for Nurses, Faber & Faher Ltd. London (Hindi Ed. also)

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MM&50
4 P/W

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Paper- I
HD - I
Growth & Development: Prenatal and Infancy

M. M. : 50
3 p/w

Unit – 1

1. Anatomy and physiology of male and female reproductive organs- Ovulation and sperm formation.
2. Fertilization, menarche and menopause.
3. Signs and symptoms of pregnancy.
4. Common ailments during pregnancy and their managements.

Unit – 2

1. Prenatal period- stages in prenatal development: zygote, embryo and fetus.
2. Teretogens: factors affecting prenatal growth and development.
3. Disorders in pregnancy: Hypertensive preeclampsia, eclampsia, pernicious vomiting.
4. Regular medical checkups: importance and schedule.

Unit – 3

1. Care of expectant mother.
2. Preparation for confinement and arrival of new born.
3. Delivery & birth process.
4. Intensive new born care and APGAR test.
5. Minor ailments of newborn and their management: colic, jaundice, napkin rash, umbilical infection, infection of eye and breast in new born.

Unit – 4

1. Care during puerperium.
2. Family planning methods including MTP and sterilization.
3. Abortion and miscarriage: symptoms and care, different types of abortion.
4. Child at birth: (i) Neonatal physique (ii) Sensory and motor reflexes (iii) Sleeping crying and emotional behaviour.

Unit – 5

1. Characteristics of human infant: from state of helplessness to gradual control over body and development of understanding of immediate environment.
2. Physical development during infancy weight, height, closure of fontanelle and teething.
3. Motor control: grasping, holding the head, seating, crawling, creeping and walking.
4. Socio emotional development during infancy: development of attachment and sense of security. Separation and stranger anxiety.

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HD I
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MM&50
3 P/W

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- 3- xHkZk/kku ds fpUg ,oa y{k.k
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- 2- rsjhVkstsUI% xHkZdkyhu fodkl ,oa o`f) dks izHkkfor djus okys rRoksa
- 3- xHkZkZoLFkk esa fodkj% mPp jDrpki] izh&,DysEifl;k] ,DysEifl;k] lka?kfrd mYVh
- 4- fu;fer fpfRldh; tkWap% egUkk ,oa vuqlwph

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- 3- izlork rFkk uotkr f'k'kq ds vkxeu dh rS;kjh
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- 5- xgu uotkr f'k'kq dh ns[kHkky vkSj APGAR ijh{k.k
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- 4- xHkZikr ,oa foQy izlo% y{k.k ,oa ns[kHkky] xHkZikr ds fofHkUu izdkj
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- 1- ekuo f'k'kq dh fo'ks"krk,a% vlgk;rk dh voLFkk esa 'kjhj ij /khjs&/khjs fu;a=.k vkSj rRdky i;foj.k dh le> dk fodkl
- 2- 'kS'kokoLFkk esa 'kkjhfd fodkl% otu] yEckbZ] QksusVsuy dk lekiu vkSj nkWr fudyuk
- 3- fØ;kRed fu;a=.k% oLrq dks idM+uk] flj dks fLFkj j[kuk] cSBuk] ljduk] ?kqVus ds cy jsaxuk o pyuk
- 4- 'kS'kokoLFkk es lkekftd&laosxkRed fodkl] yxko dk fodkl vkSj lqj{kk dh HkkoukA tqnkbZ ,oa fo;ksxt dh fpark

Paper – II

H.D. - II

Development Aspects: Infancy to Old Age

M. M. : 50

3 p/w

Unit – 1

1. Characteristics of physical and motor development: skeletal growth, growth monitoring, basic motor skills from preschool to late childhood.
2. Beginning of language development, sequence of speech development and factors influencing the development of language till late childhood. Relation between cognition and language.
3. Emotional development: Characteristics of emotions in childhood. Basic emotions and their developmental changes: fear, anger, jealous, affection and joy.
4. Social development, importance of peer group, during childhood. gang age

Unit – 2

1. Theory of socio emotional development: Erikson's theory and the eight stages (in brief).
2. Cognitive development: introduction to Piaget basic concepts and stages of cognitive development (in brief).
3. Development of morality (Kohlberg's stages) development of acquisition of gender identity and sex roles.
4. Introduction to Freud's theory of personality structure and stages

Unit - 3 Adolescence.

1. Early and Late Adolescence: Pubertal changes and Maturity, Physical and motor gains.
2. Development of Self-concept, Self Esteem, Values, Interests.
3. Characteristic of social Development, Relations with Peers, Friendship and Heterosexual Relationship.
4. Personal Adjustment with self, family and school. Period of storm & stress.
5. Juvenile delinquency: Causes and Prevention.

Unit - 4 Adulthood

1. Stages and characteristics of Adulthood: Young Adulthood (19-40 Yrs) Significance and responsibilities in context of work place and family.
2. Middle Adulthood (41 to 60 Years) Menopause and health Issues. Stresses at workplace and family.

Unit – 5 Old Age

- 1) Definition, Physical and intellectual changes.
- 2) Retirement: effect on self, family and society.
- 1) Issues: Old Age homes, Loneliness.
- 2) Strategies for enhancing the quality of life of People of Age.
- 3) Death Anxiety, Care for a dieing Person.

Practical (HD)

M.M – 30

Internal – 10

External – 20

1. Observation of a child in Nursery School for his developmental stage in following areas and preparing a report on it
 - I. Physical- Height and Weight
 - II. Motor skills, Handedness
 - III. Emotional Development
 - IV. Play Activity
 - V. Group Play
 - VI. Language
 - VII. Social Development
 - VIII. Peculiar Behavior
2. Preparing interview Schedule for parents (to be used in Child study)
3. Planning Activities for preschool Children for all areas of development
 - I. Demonstration by models of Delivery Process
 - II. Demonstration by models of Prenatal Stages
4. Preparation of growth Enhancing material for infants
5. Survey of Mother of Infants.

Note: students will go to different nursery schools to observe the child under the guidance of the teacher concerned till a laboratory nursery school is started in the department itself

Examination Scheme: Distribution of marks

1. Spotting – Identification & Description - 5
2. Preparing Activity Planning – 6
3. Preparing Interview Schedule for Parents/Growth enhancing material – 6
4. Viva – 3

isij II

HD - II

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MM&50

3 P/W

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- 2- ok.kh ,oa Hkk"kk dk fodkl dk Øe vkSj mUkj ckY;koLFkk rd bUgs izHkkfor djus okys rRoA laKku ,oa Hkk"kk esa ijLij IEcU/k
- 3- laosxkRed fodkl% ckY;koLFkk esa laosxksa dh fo'ks"krk,Wa% ewyHkwr laosksa vkSj mudk fodklkRed ifjorZu% Hk;] Øks/k] bZ";kZ] Lusg] [kq'kh
- 4- lkekftd fodkl] ckY;koLFkk esa fe= e.Myh dh egÜkk] Vksyh vk;q

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- 1- lkekftd laosxkRed fodkl ds fl)kUr% ,fjdlu fl)kUr vkSj vkB voLFkk,Wa ¼la{ksi esa½
- 2- laKkukRed fodklkRed% fi;kts ds izeq[k fopkj ls ifjp; djokuk vkSj laKkukRed fodkl dh voLFkk,aW ¼la{ksi esa½
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- 2- vkRe izR;:] vkRe ewY;kdu] ewY;] :fp;ksa dk fodkl djuk
- 3- lkekftd fodkl dh fo'ks"krk,Wa] fe=ksa ls IEcU/k
- 4- Lo;a] ifjokj vkSj Ldwy ds lkFk O;fDrx lek;kstu rqQku vkSj ruko dh voLFkk
- 5- cky vijk/k% dkj.k vkSj fuokj.k

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- 1- ;qokoLFkk dh voLFkk,Wa ,oa fo'ks"krk,Wa% izkfjEHkd ;qokoLFkk ¼19&40 lky½ dk;Z LFky ,oa ifjokj ds lanHkZ esa egÜkk ,oa ftEesnkfj;kWa
- 2- Ek/; ;qokoLFkk ¼41&60 lky½ jtksfuo` fr vkSj LokLF; ds eqlsA dk;Z LFky o ifjokj es ruko
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- 3- e`R;q dh mRlqdrk] ejrs gq, O;fDr dh ns[kHkky

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MM&30

vkUrfjd & 10

Ckká & 20

2P/W

- 1- fuEu fyf[kr {ks= ds fodklkRed voLFkkvksa esa ckyd dk ulZ]h Ldwy esa fujh{k.k djuk vkSj ml ij ys[ku rS;kj djuk v- 'kkjhfd% yEckbZ o otu c- fØ;kRed dkS'ky] gLrf'kYirk l- laosxkRed fodkl n- [ksy xfrfof/k ;- lewg esa [ksy j- Hkk"kk y- lkekftd fodkl o- vthc O;ogkj
- 2- vfHkHkkodksa ds fy, lk{kkRdkj vuqlwph rS;kj djuk ¼cky v/;;u esa dke gsrq½
- 3- fodkl ds fofHkUu {ks=ksa esa iwoZ 'kkyh; ckydksa dh xfrfof/k;ksa dh ;kstuk cukuk

- v- ekWMy }kjk izlo izfØ;k dk izn'kZu
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 - 4- f'k'kq dh o`f) dks c<+kus okyh lkefxz;kWa cukuk
 - 5- f'k'kq dh ekrkvksa dk losZ{k.k
- uksV %& v/;kfidk ds lja{k.k esa lHkh Nk=k;s ckydksa dh xfrfof/k;ksa ds fuj{k.k gsrq ulZjh Ldqyksa esa tk;sxhA
- ijh{k.k Ldhe & ekDIZ dk forj.k
 - 1- LikWfVax & igpkuuk ,oa foLr`r o.kZu djuk &5
 - 2- fØ;kRed ;kstuk cukuk &6
 - 3- vfHkHkkodksa gsrq lk{kRdkj iz.kkyh cukuk@o`f) n'kkZus gsrq lkexzh rS;kj djuk & 6
 - 4- okbok & 3

Paper- III HM - I Principles of Home Management

M.M. – 50
3P/W

Unit I

1. Introduction to Management
 - i. Concept & definition of management
 - ii. Communication in management
 - iii. Managerial function of families & management
2. Decision making in management
 - i. Types of steps in decision making
 - ii. Factors affecting in Decision making
3. System approach to the study of management
 - i. Definitions and characteristics

Unit 2

1. Factors motivating management:
 - a. Values- Classification and hierarchy, sources, origin characteristics, factors influencing values, changes values and their causes
 - b. Goal-types, Characteristics, factors influencing goals
 - c. Standards-conventional and modern, flexible and rigid
 - d. Needs and wants
2. Resources & their management in the family
 - i. Introduction, definition & usefulness of resources
 - ii. Differences among Resources
 - Quantitative resources
 - Qualitative resources
 - iii. Classification of resources
 - Human versus Non human resources
 - Economic versus Non economic resources
 - iv. Resources classified by their sources
 - Resources from the near & larger environment
 - Resources from the household environment
 - Resources located in the family system
 - v. Resources as a system
 - Interrelated demands'
 - Substitution
 - Crucial resources
 - Conversion or creation
 - vi. Family resources as a unit
 - vii. Guidelines for the use of resources
 - Increase total supply of resources
 - Know alternate uses
 - Consider amounts of resources to invest
 - Increase utility per unit of resources
 - Expand appreciations'
 - Balance choice among resources

Unit 3

1. Management of time as a resource
 - Characteristics & nature of time
 - Tools, time pattern & time cost. Norms, peak Loads, work units, work curves, rest periods.
 - Process of managing time

- Planning, Controlling & evaluating
2. Management of money as a resource
 - i. Definition & types of income & their sources
 - a. Money income
 - b. Real income
 - Direct income to include household production, Free goods & services, owned durable goods & social income.
 - Indirect income to include money income such as wages, salaries, interest, profit, rent & fringe benefits.
 - c. Psychic income
 - ii. Expenditure
 - Definition of expenditure
 - Factors affecting expenditure
 - iii. Taxation
 - Meaning objective of taxation
 - Types of taxation, direct & indirect
 - iv. Saving & investments

Unit 4

1. Management of energy as a resource
 - Household task and effort
 - Concept of the human cost of work-fatigue- causes, types, prevention
 - Cost of work-Human energy expenditure, oxygen consumption methods of measurement, other measures of cost of work
 - Body mechanics
 - Types of efforts-effects of working heights and storage in relation to anthropometry

Unit 5 Work Simplification:

- Work Study techniques
- Mundel Classes of changes in household activities
- Factors affecting work-human and environmental
 - a. Human-worker's attitudes knowledge, skill, time, human energy
 - b. Environment-work space, fitness, climate, lighting equipment and service work, worker environment, relationship-co-ordination and fitness
- Postures –types of postures, maintenance of good postures in household activities
- Fatigue-types, avoidance of fatigue

isij III HM - I x`g izcU/ku ds fl)kUr

MM&50
3 P/W

bdkbZ & 1

- 1- çcU/ku ,d ifjp;
v- izcU/ku dh vo/kkj.kk o ifjHkk"kk
c- izcU/ku esa lapkj
l- ifjokjksa ds izcU/kdh; dk;Z ,oa izcU/ku
- 2- x`g izcU/ku esa fu.kZ;&fØ;k
v- fu.kZ;&fØ;k ds pj.kksa ds izdkj
c- fu.kZ;&fØ;k dks izHkkfor djus okys dkjd
- 3- izca/ku dk v/;;u djus ds fy, flLVe n`f"Vdks.k
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- l- lalk/kuksa dk oxhZdj.k
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- 2- eqnz k dk lalk/ku ds rkSj ij izca/ku
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- eqnz vk;
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- c- [kpZ & ifjHkk"kk o [kpZ dks c<+kus&?kVkus okys dkjd
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v- ekuo dk;ZdrkZ ds Hkko&Kku] dkS'ky] le;] ekuoh; ÅtkZ
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Paper- IV Home Management - II Housing and Home Furnishing

**M.M. – 50
3P/W**

Unit 1 :

1. Housing :
 - a. Its functions, importance and types
 - b. Changes needs and housing problem
2. Features contributing to livability of house, orientation of accommodation, sanitation, neighborhood, lighting, Plumbing arrangements and practical conveniences

Unit 2

1. Land acquisition :
 - a. Types : purchase/inheritance
 - b. Selection of site

- c. Legal implications
2. a. Principles under lying house planning
- b. Blue prints and floor plans
3. House layout (plinth/floor area)- Space distribution with reference to the activities performed viz. Bedroom, living room, kitchen, Verandah, dining room, toilet, storage and staircase etc.

Unit 3:

1. Building Components and Building materials :
 - a. Foundation
 - b. Wall's doors and windows
 - c. Roof, floor and other structures
 - d. Maintenance and repairs
2. Housing Finance:
 - a. Cost of building and house
 - b. Owning vs. renting
 - c. Financing agencies
 - d. Legal information

Unit 4:

1. Application of elements of art and principles of design in interior and exterior enrichment- Color theories, properties, color schemes, characteristics & effect in interior.
2. Furniture : Types, selection, care, use, arrangement and ease of furniture in different rooms

Unit 5:

1. Selection, use and care of furnishing material-Texture, Design, Color
 - a. Wall and its treatment
 - b. Window and treatment, upholstering
 - c. Other decorative and functional accessories
2. Lighting : Its type and use in different rooms for different activities
3. Table setting
 - a. Table lines
 - b. Table wares: Flat ware, hollow ware and silver wares
 - c. Rules for table setting Table setting for different occasions
 - d. Table manners and etiquettes

REFERENCE BOOKS

Paulena Nickel & Dorsey, Jean Muir: Management in Family Living
 Mehta, Kamal: A Text Book of Home Economics
 Devett & Verma: Modern Economic Theory
 Varghese, M.A., Ogale, N.N. & Srinivasan, K.: Home Management
 Gross & Crandle: Home Management
 Mk- dkfUr ik.Ms;] izfeyk oekZ % x`g izcU/k
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HOME MANAGEMENT (PRACTICAL)

M.M. : 30
 Internal : 10
 External : 20

1. Symbols for drawing floor Plan
2. Drawing of floor Plans of a house for different income groups keeping in view the principles, including orientation and zoning. Furniture cutout placement
3. Visit to house construction site for knowing about materials used in house construction
4. Colour wheel, Value chart and its use, colour planning with reference to possession, season, personality and availability for different rooms
5. Models and samples of window treatment
6. Varnishing, polishing and finishing of furniture and accessories
7. Table setting and napkin folding
8. Preparation of a creative article for household decoration
9. Picture mounting and framing
10. Work study techniques
11. Arranging Exhibition of all items made

**isij & IV
 HM - II
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**MM&50
 3 P/W**

bdkbZ & 1

- 5- vkokl
v- dk;Z] egRo ,oa izdkj
c- cnyrh t:jrsa vkSj vkoklh; leL;k,a
- 6- vkokl dks jgoklh; cukus esa ;ksxnku nsus okyh fo'ks"krk,Wa & fuokl LFkku dk vuqdwyu] ey&ew= ,oa xUns ty dk fu"dklu] ikl&iM+ksl] izdk'k O;oLFkk] Hkou esa ty&vkiwfrZ O;oLFkk vkSj izkFkfed lqfo/kk,a

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- 1- Hkwfe vf/kxzg.k
v- izdkj & [kjhnk gqvk ;k iSr`d
c- Hkwfe [k.M dk p;u
l- dkuwuh i{k
- 2- vkoklh; ;kstuk ds fl)kUr
v- uhyk uD'kk ¼CywfizaV½ o Q'kZ ;kstuk
- 3- X`g foU;kl ¼dqLhZ@Q'kZ foLrkj½& txg dk foHkktu ogkW fd, tkus okys dk;ksaZ ds vk/kkj ij TkSlS & 'k;u d{k] jgus dk d{k] jlksbZ] cjenk] Hkkstu d{k] Lukux`g] 'kkSpky;] Hk.Mkj d{k vkSj lh<+h vkfn

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v- uhao
c- nhokjsa] njokts ,oa f[kM+fd;kaW
l- Nr] Q'kZ vkSj vU; fuekZ.k
m- j[k&j[kko ,oa ejEer
- 2- vkoklh; _` .k
v- Hkou fuekZ.k dh ykxr ,oa ?kj
c- futh o fdjk, ij miyC/k
l- _k iznku djus okyh laLFkk,W
n- dkuwuh tkudkj

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- 1- dyk ds rRoksa ,oa dyk ds fl)kUrksa dk Hkhrjh o ckgjh x`g ITtk esa iz;ksx
v- jaxksa ds fl)kUr] xq.k] jax ;kstuk] izd`r o jaxksa dk Hkhrjh ITtk esa izHkko
- 2- QuhZpj & izdkj] p;u] iz;ksx] j[k&j[kko] O;oLFkk o izR;sd dejs dh QuhZpj O;oLFkk

bdkbZ & 5

- 1- ifjITtk ds lkeku dk p;u] iz;ksx ,oa j[k&j[kko ¼cukoV] fMtkbu o jax½
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l- vU; ltkoVh o dk;kZRed ltkoVh lkeku
- 2- izdk'k o;oLFkk & izdkj o fofHkUu dejsa esa fofHkUu dk;ksaZ ds fy, iz;ksx
- 3- est ITtk
v- est iks'k] est :eky] VScy eSV vkfn
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- 5- Mk- dkfUr ik.Ms;] izfeyk oekZ% x`g izca/k
- 6- lJLorh oekZ ,oa vk'kk ns'kik.Ms % ikfjokfjd foRr
- 7- th-ih- 'kSjh% x`g O;oLFkk ,oa x`g dyk
- 8- ijh[k] vk'kk ,oa esgrk pUnzdkUr% x`g izca/k

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Ckká & 20**

- 1- Q'kZ ;kstuk ds fy, iz;ksx fd, tkus okys izrhd
- 2- Q'kZ ;kstuk ds fl)kUrksa dks /;ku esa j[krs gq, fofHkUu vk; oxZ ds fy, Q'kZ ;kstuk rS;kj djsa o QuhZpj uewus cukdj yxk,W
- 3- vkokl fuekZ.k LFky dk nkSjk dj Hkou fuekZ.k lkexzh ,oa rduhd dh tkudkj izklr djsa
- 4- jax pØ] ewY; pkVZ o mldk iz;ksxQA Hkou vkf/kiR;] ekSlE] O;fDÜkRo o dejsa ds iz;ksx ds vk/kkj ij jax ;kstuk cukuk
- 5- f[kMdh ITtk ds ekWMy o uewus cukukA
- 6- ikfy'k] okfuZ'k o ifj"dj.k & fofHkUu izdkj ds ltkoVh lkeku o QuhZpj dk
- 7- est ITtk o :eky ITtk
- 8- x`g ITtk ds fy, ,d ltkoVh pht dk fuekZ.k
- 9- fp= vkaycu o Qzsfeax ¼e<+uk½
- 10- dk;Z v;;;u rduhd
- 11- fo|kfFkZ;ksa }kjk fufeZr ltkoVh oLrqvksa dh izn'kZuh yxkuk

Paper- V
FOODS AND NUTRITION I
Fundamentals of Nutrition Science

M.M. : 50
3P/W

Unit – I :

1. Meaning of food, nutrition and nutritional care
2. Objectives in the study of Nutrition
3. Carbohydrates:
 - a. Composition
 - b. Classification, distribution and characteristics
 - c. Functions
 - d. Dietary allowance and food resources
 - e. Dietary fibers
4. Lipids
 - a. Composition, classification and characteristics
 - b. Functions of
 - i. Fats
 - ii. Essential fatty acids
 - iii. Phospholipids
 - iv. Cholesterol
 - c. Dietary allowance
 - d. Food sources
 - e. Dietary fat and health issues – obesity, Heart disease

Unit – 2

Proteins and Amino Acid

1. Composition, structure and classification (in brief)
2. Functions
3. Dietary Protein Requirements and Allowance- Nitrogen Balance, Factors affecting the Protein Requirement
4. Quality of food proteins
 - a. Measurement of protein quality PER, Amino Score (Chemical Score), Biological Value, NPU
 - b. Improving Protein quality of Foods
5. Food Sources
6. Protein deficiency

Unit – 3

Energy Metabolisms

1. Introduction
2. Measurement : Kilocalories, Joules, Bomb calorimeter, Physiologic fuel Factors, Specific fuel Factors
3. Measurement of Energy Exchange of the Body; Direct and indirect calorimetry, Basal Metabolism test, Factors influencing the BMR
4. Factors influencing the Total Energy, Requirement
 - a. Muscular Activity
 - b. Mental Effort
 - c. Calor genic effect of food
 - d. Maintenance of body Temperature
 - e. Growth
5. Recommended allowances
6. Water

Unit – 4

1. Mineral Elements: Basic concept- Distribution and Function, Factors Affecting Absorption and Utilization, Daily Allowance, food Sources, Deficiency and Excess
 - a. Calcium
 - b. Phosphorus
 - c. Iron
 - d. Iodine
 - e. Zinc
 - f. Fluoride
2. Electrolyte Balance

Unit – 5

Vitamins – Introduction, Characteristics, Absorption, Storage and transport, functions, daily allowance, food sources, Retention of food values. Effect of deficiency and Excess of :

- a. Fat Soluble Vitamins A,D,E, & K
- b. Water soluble vitamins
- c. Ascorbic Acid
- d. B-Complex- Thiamin, Riboflavin, Niacin, Vit, B-6, Pantothenic Acid, Biotin, Vit. B-12, folacin

REFERENCE BOOKS

Robinson, C.H.: Normal and Therapeutic Nutrition
Davidson and Passmore : Human Nutrition and Dietetics

isij & v
FN - I
vk/kkjHkwr iks" k.k foKku

MM&50
3 P/W

bdkbZ & 1

- 1- Hkkstu dk vFkZ] iks" k.k ,oa iks" k.k IEcU/kh ns[kHkky
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- 3- dkcksZt
v- laxBu
c- oxhZdj.k] forj.k ,oa fo'ks"krk;sa
l- dk;Z
n- nSfud ek=k ,oa izkflr lk/ku
;- vkgkj; js'ks
- 4- fyfiM
v- laxBu] oxhZdj.k ,oa fo'ks"krk;sa
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n- vko';d olh; vEy
;- QkWLQksfyfiM
j- dksysLV^aky
y- nSfud ek=k
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- 4- izksVhu dh xq.koUkk
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- 2- ukiuk% fdyksdSyksjh] twy] ckWEc dSyksjhehVj] fQft;ksyksftd ¶llwy QSDVj ¼'kkfjjhd½
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- 3- mtkZ dks ukiuk 'kfjjhd vnku iznku gsrq fof/k;kWa& izR;{k ,oa vizR;{K dSyksjhehVj] vk/kkj; mikip; ijh{k.k ,oa bls izHkkfor djus okys dkjd
- 4- IEiw.kZ 'kkfjjhd mtkZ dh ek=k dks izHkkfor djus okys dkjd
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- 2- MsfoMlu ,oa ikleksj% g;weu U;wfV^a'ku ,oa Mk;fVDI
- 3- LokehukFku ,e% blsfU'k;y vkWQ QqM ,oa U;wV^ah'ku
- 4- ØkWl] ,e-oh-% QwM U;wfV^a'ku ,.M Mk;V fFkjkih
- 5- MkW- IR;nso vk;Z% vkgkj iks"kkkj
- 6- MkW- ljkstuh vk;Z% iks"k.k ds fl)kUr
- 7- MkW- o`Unk flag% vkgkj ,oa iks"k.k

Paper- VI
FOODS AND NUTRITION II
Bio – Chemistry

M.M. : 50
3P/W

Unit – 1

1. Importance and scope of bio-chemistry, relevance of study of bio-chemistry for nutrition students
2. Carbohydrates – Occurrence, composition, classification structures, properties and important bio-chemical reactions of monosaccharides
3. Lipids : Occurrence, classification, structures, physical and chemical properties: hydrolysis, saponification. Saponification on reactions of glycerol, Reactions of fats due to unsaturation-hydrogenation, halogenations, Iodine no. , rancidity of fats, Acid no. Phospholipids and cholesterol

Unit – 2 Proteins- Amino Acids, peptides and proteins occurrence, structure, classification, Properties and colour reactions. The ninhydrin reaction, biuret reaction, xantho proteic reaction and Millon's test, Denaturation of proteins, Nucleic acid-structure of nitrogenous bases, nucleosides DNA and RNA, role of nucleic acids in protein synthesis

Unit – 3: Vitamins – classification, Chemistry and physiological functions of :

1. Fat soluble vitamins – A, D, E & K
2. Water soluble Vitamins – B Complex : Thiamine, riboflavin, niacin, pyridoxine, pantothenic acid, Folic acid, Biotin B-12 and Vitamin-C (Ascorbic acid)

Unit – 4 : Minerals-Specific bio-chemical functions and bio-availability of calcium phosphorus, magnesium, iron, copper, sodium, potassium, iodine, fluorine and zinc

- a. Enzymes – Definition, Chemical nature, classification, factors affecting rate of temperature, pH, enzyme and substrate concentration, Enzyme specificity and inhibition of enzyme activity
- b. Coenzymes and cofactors- definition and role

Unit – 5: Intermediary metabolism

Importance of intermediary metabolism- Metabolism of carbohydrate Glycolysis, Citric Acid Cycle Gluconeogenesis, Glycogen break down and synthesis (glycogenolysis, glycogenesis) Regulation of blood glucose level-lipid Metabolism-B oxidation of Fatty Acids, Ketogenesis, Cholesterol metabolism, Protein metabolism – Transamination, decarboxylation and entry of amino acids into citric acid cycle, urea cycle

REFERENCE BOOKS

West. E.S. and Todd, W.R. : Text book of Bio-chemistry
White, A, Handler, P. and Smith, E.L., "Principles of Bio-chemistry
Lehninger, A.L. : Bio-chemistry
Dr. Rama Rao : Text book of Bio-chemistry for Medical Students
Pike and Brown : Nutrition an Integrated Approach

FOOD AND NUTRITION
PRACTICAL
(BIO-CHEMISTRY)

M.M- 30
Internal – 10
External - 20
2p/w

1. Qualitative testing of some foods for adulteration- Lead chromate in haldi powder, Sand in flour, Kreis test for rancidity of oils. Metal in yellow Arhar dal and in yellow sweets, starch in milk, Vanaspati in pure ghee and chalk powder in wheat flour
2. Qualitative analysis of mono, di and polysaccharides
3. Qualitative analysis of proteins
4. Qualitative analysis of fats and oils
5. Use and handling of different types of balances
6. The determination of pH range using different indicators
7. Estimation of lactose in milk
8. Estimation of total sugar in honey
9. Estimation of Protein in foods by Kjeldhal's method

10. Determination of acid value, Saponification value and iodine value of fats
11. Moisture content and ash content of food stuff
12. Microscopic structure of starch, rice, potato etc.
13. Estimation of vitamin C in fruits
14. Hemoglobin by Haemoglobino meter
15. Paper Chromatography

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MM&50
3 P/W

bdkbZ & 1

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- 2- dkcksZt & izkflr {ks=} laxBu] oxhZdj.k] cukoV] ljj 'kdZjvkksa ds egRoiv.kZ tSo jklk;fud xq.k ,oa izfrfØ;k;sa
- 3- fyfiM & izkflr {ks=} oxhZdj.k] cukoV] HkkSfrd ,oa jklk;fud xq.k %& ty;hdj.k] lkcquhdj.k] fXyljkWy dh fØ;k;sa] valr` lrk ds dkj.k olk dh izfrfØ;k;s & gkbM^asftfudj.k] gSyksftfudj.k] vk;ksMhu uEcj] olk dk IM+uk] ,fIM uEcj] QkWLQksfyfiM ,oa dksysLV^aky

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- 2- ty esa ?kqyu'khy foVkehu & ch dkWEiysDI foVkehu% Fkk;feu] jkbcks¶[ysfou] uk;flu] ihjhMksDIhu] isUVksfFkfud ,fIM] QkWfyd ,fIM] ck;ksVhu] ch&12 ,oa foVkehu lh ¼,LdkfcZd ,fIM½

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MM&30
vkUrfjd & 10
Ckká & 20
2P/W

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Paper- VII
CLOTHING AND TEXTILE - II
Textile Fibers and Fabric Construction

M. M. : 50
3P/W

Unit - I

Origin manufacture and properties of-

1. Natural cellulosic fibers – Cotton, linen, jute
2. Natural pertain fibers – wool, silk
3. Natural mineral fibers

Unit 2: Manmade and synthetic fibers – Polyesters, Polyamide, Acrylic fibers, Rayon, origin manufacture, Properties and their importance to consumers

Unit 3: Yarns Construction and fabric construction

1. (a) (i) Mechanical Spinning
(ii) Chemical Spinning
(b) Classification of Yarns
2. (a) fabric construction techniques
(i) Felting
(ii) Braiding
(iii) Bonding
(iv) Knotting
(v) Knitting
(vi) Weaving

3. Types of weaves, analysis

Unit 4: Fabric Finishes :

- a. Objectives of finishes
- b. Basic finishes- bleaching, sizing, singeing, tentering, beetling, calendaring and mercerization
- c. Texturing – Embossing, mélangé, Scheinorining napping, flocking, acid and basic finishing

Unit 5: Functional Finishes

- b. Finishing chemicals
- c. Antistatic bacteriostat, moth proofing, Anti shrinking
- d. Flame retardant, water repellency, water proofing, soil and stain resistant, crease resistant
- e. Wash “n” wear, Permanent Press, Fabric softening

REFERENCE BOOKS

Wingatic Iqabel M: Selection of Fabric and Care
 Joseph, Moyory: Essentials of Textiles
 Joseph, Moyory: Introductory Textiles Science
 Dantyagi, Sushila: fundamental of Textiles

isij & VII
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MM&50
3 P/W

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Paper – VIII CLOTHING AND TEXTILE - II Textile Chemistry

M. M. : 50
2P/W

Unit 1:

- i. History and classification of dyes, Selection of dyes and their application
- ii. Dyeing of fibres, yarns, fabrics and blends
- iii. Identifying dyeing defects, tests to determine colour fastness

Unit 2:

- a. Printing styles
- b. Requisites for printing and preparation of fabric
- c. Block printing, Roller printing, Screen printing, discharge printing
- d. Resist printing, photographic and transfer printing

Unit 3:

- a. Effect of water hardness on laundry reagents, principles of laundering,
- b. Laundry equipments-scrubbing board, suction, washer, washing machine etc.
- c. Laundry reagents and their functions. Soaps and detergents, bleaches and optical brighteners, blues and stiffening agents, solvents and absorbents

Unit 4:

- a. Classification of stains
- b. Stain removal- Methods and application of various reagents according to the types of fabric and stain
- c. Care and storage of laundered clothes

Unit 5:

- a. Chemicals used in textile processing and their effect on ecology
- b. Eco friendly processing of textiles and substitutes for harmful chemicals and processes
- c. Application of enzyme in textiles
- d. Environmental protection and ISO series

PRACTICAL CLOTHING AND TEXTILE (TEXTILE AND LAUNDRY)

M. M. :30
Internal : 10
External : 20
3P/W

- 1. Family Wash ;
 - a. Stain removal : Simple home methods and use of chemical stain removers
 - b. Principles and methods of laundering, their applications to various fabrics
 - c. Process in finishing : Ironing process and steam pressing
 - d. Washing of Cotton, Wool Silk and Manmade fabrics
- 2. Fabric Study
 - a. Fibers : Identification- Microscopic, Physical and chemical test
 - b. Fabrics
 - i. Thread Count and balance
 - ii. Weave
 - c. Launderability
 - i. Dimensional Stability
 - ii. Colour Fastness

- iii. Cleaning Efficiency of Detergents
- 3. Dry cleaning with special references to spotting and clearing
- 4. Dyeing and printing of fibers and using commercial dyes
 - a. Tie and Dye
 - b. Batik
 - c. Block Printing
 - d. Shade dyeing of Cotton and Wool yarn ,indirect mordant and reactive dyes
- 5. Visit to review textile mills and museums in India

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MM&50
2 P/W

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- 1- NikbZ dh i)fr;kWa
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- 3- Cykd NikbZ] jksyj NikbZ] LØhu NikbZ] fMLpktZ NikbZ
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MM&30
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Ckká & 20
3 P/W

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 - v- cU/kst
 - c- ckfVd
 - l- Cykd NikbZ
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- 5- Hkkjr ds oL= m|ksx ,oa laxzgy;ksa dk voyksdu rFkk Hkze.k

Paper – IX
EXTENSION EDUCATION- I
Teaching and Learning in Extension Education

M.M. : 50
3P/W

Unit- 1 Rural Sociology

- 4 Sociology and rural sociology
- 5 Interrelationship between rural sociology and extension
- 6 Characteristics of urban and rural people
- 7 Rural and Urban community differences
- 8 Characteristics of Rural Sociology-
 - (i) Social stratification- Function, Dysfunction, Basis for stratification and types
 - (ii) Value and Value System – Characteristics, Types classification and functions
 - (iii) Social Mobility- Types and Factor influencing Mobility
- 9 Major problems in Rural area

Unit : 2 Teaching and Learning Process

- b) Concept of Learning, Elements & Principles involved in Learning
- c) Learning experiences
- d) Types of learning
- e) Adult learning- meaning, assumption, characteristics and conditions
- f) Concept , Definition, Factor Effecting Teaching
- g) Steps in Extension Teaching

Unit-3 Effective Training

- a) Training- definition, Concept of co training, and features
- b) Difference between education and training
- c) Importance and features of training
- d) Need Assessment before training
- e) Process of training
- f) Types and approach to training
- g) Elements of good training
- h) Training methods (elementary idea)
- i) Experiential Learning cycle of Training
- j) Training evaluation

Unit : 4 Teaching Methods

- a) Selection of Appropriate teaching Method,
- 5- Importance and scope of Teaching Methods
- 6- Classification of teaching Methods in Home Science Extension
- 7- Advantage and Limitations of each method
- 8- Factors affecting the Use and Selection of Teaching method
- 9- Relative Effectiveness of teaching methods

Unit : 5 Teaching Aids

- a) Meaning and Definition of Teaching aid
- b) Selection of Audio Visual Aids
- c) Efficient Utilization of Audio Visual Aids
- d) Classification of Teaching aids:
 - i) Audio aids
 - ii) Visual Aids
 - iii) Audio Visual Aids
- c) Advantages and limitation of each type
- d) Cone of Experience

PRACTICAL
Teaching and Learning in Extension Education

M.M. : 30
Internal- 10
External- 20
2 p/w

1. Preparation and Use of Selected Teaching aids in all areas of Home Science
2. Developing skill and use of different training methods- Role play, Demonstration and Panel Discussion

3. Practice of problem solving through case study method.

Reference:-

- Chakrabarti : Audio Visual Education of India. Oxford Book Co. New Delhi,1967
Chandra Arivinda : Introduction to Home Science, Metro politan Book Co. Pvt. Ltd. New Delhi, 1978
C.S.Rayudu, Communication, Himalya Publishing House, Mumbai
Dale Edger : Audio Visual Aids, Holt, Rinehart and Winstion, London, 1964
Dhama, O.P. & Bhatnagar, O.P. : Education and Communication for Development, 1987
Devdas, Rajammal : Methods of Teaching Home Science, NCERT, New Delhi, 1978
Devdas, Rajammal P. :Text-Book of Home Science, I.C.A.R. Publication, New Delhi, 1959

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MM&50
3 P/W

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c- ewY; vkSj ewY; iz.kkyh & fo'ks"krk,Wa] izdkj oxhZdj.k vkSj dk;Z
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(Home Science) Final Examination- 2022-2023

Paper- I FOODS AND NUTRITION - III

Unit: 1 Meal Planning and Budgeting:

- Essentials of Meal Planning
- Planning the Food Budget
- Master food plans
- Sample menu for the day's meal
- Factors influencing Food intake and food habits:
 - Physiologic factors that determine food intake
 - Environmental and behavioral factors
 - Influencing food acceptance
 - Nutrition during pregnancy and lactation
 - Physiological and Biochemical changes in pregnancy
 - Nutritional considerations
 - Complication of pregnancy
 - Lactation-Nutritional consideration and diet
 - Nutrition during infancy
 - Nutritional requirement, Breast feeding, Bottle feeding, Solid foods

Unit: 2 Nutrition for children and teen agers

Diet for per-school Child, School going child and teen agers

Therapeutic Nutrition:

1. Introduction
2. Purpose of modified diets
3. Tem approach to nutritional care
4. Factors of consider in the study of diet therapy
5. Effect of illness on food acceptance and utilization

Unit: 3 Enteral and parenteral Nutrition

1. Therapeutic modifications of the normal diet for consistency, energy, nutrient, bulk etc.
2. Parenteral nutrition
3. Formula diets (tube-feeding)
4. Obesity-causes, prevention and treatment, caloric diet
 - a. Under weight –causes, dietary modifications
 - b. General Dietary considerations in Gastrointestinal diseases, eating disorders
Peptic ulcer-Etiology symptoms & treatment
 - c. Diet in diarrhea and constipation

Unit: 4 1. Diet in hepatitis and cirrhosis

2. Fevers-classification, metabolism & General dietary considerations, Diet in tuberculosis & typhoid
3. Diabetes Mellitus-Nature, classes, characteristics, metabolism in diabetes, dietary modification
4. Diet in Anemia

Unit: 5 1. Atherosclerosis-Risk, role of diet Hypertension- Prevention: role of diet and dietary modification

3. Dietary management of heart diseases, modification of the diet
4. Kidney diseases: Glomerulonephritis, nephrotic syndrome and nephrosclerosis
5. Gout-nature, symptoms, treatment modification of the diet
Purine restricted diet.
6. Cancer-Dietary modification

REFERENCE BOOKS

Robinson: Normal and Therapeutic Nutrition

Kinder, F.: Meal Management

Davidson, S. Passmore: Human Nutrition and Dietetics

Swaminathan, M.: Advance Nutrition

Shills, M.E. and Young, V.R.: Modern Nutrition in Health and Disease

Anita, F.P.: Clinical Dietetics and Nutrition

Falkner and Tanner: Human Growth a Comprehensive Treatise, vol. I, II and III

**PRACTICAL
MEAL PLANNING AND THERAPEUTIC DIET**

M.M- 25
Internal – 10
External - 15
Time- 2p/w

Note : Stress should also be laid on decoration, presentation and serving of meals

1. Use of Nutrition value Tables and/ or Exchange lists for calculation of diets
2. Planning (calculate protein and calorie), preparation and serving of a day's meal for
 - a. An adult man and women (moderate worker)
 - b. Adolescent girl (calculate iron also)
 - c. Old age individual
 - d. Packed lunch for a Pre-School Child providing day's 1/3 protein and ¼ calorie

- e. Pregnant and lactating mothers (calculate iron and calcium also)
 - f. A low cost meal for a hard worker-
 - g. Adult women, planned with special attention to the inclusion of foods for prevention of dietary deficiency diseases
3. Planning, preparation and serving of therapeutic diets for-
 - a. Constipation
 - b. Diarrhea
 - c. Peptic ulcer
 - d. Obesity
 - e. Diabetes
 - f. Hypertension
 - g. Fever
 4. Meals for special occasions- Birthday party , festival celebration or journey
 5. Diet survey of a family or a particular age group
 6. Formulating recipes and preparing homemade infant foods

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3 P/W

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- 1- vkgkj fu; kstu dh izeq[krk
- 2- [kk] inkFkksaZ dh ctV ;kstuk
- 3- ekLVj QwM lyku
- 4- ,d fnu dh vkgkj rkfydk dk ISEiy esuw
- 5- Hkkstu IEcU/kh vknr rFkk x`g.k djus dh izfØ;k dks izHkkfor djus okys dkjd& 'kkfjjhd dkjd] okrkoj.k IEcU/kh dkjd] O;ogkfjd dkjd xHkkZoLFkk rFkk nqX/kkoLFkk ds le; dk iks" k.k & xHkkZoLFkk esa 'kkfjjhd ,oa tSo jklk;fud ifjorZu] iks" k.k IEcU/kh vko';drk;sa xHkkZoLFkk dh tfVyrk;sa nqX/kkoLFkk & iks" k.k IEcU/kh vko';drk;sa Lruiku] cksry }kjk nw/k ,oa Bksl vkgkj

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- 1- izLrkouk
 - 2- vkgkj; ifjorZu dk m)s';
 - 3- iks" k.k IEcU/kh ns[kHkky gsrq fufeZr Vhe
 - 4- vkgkj; ifjorZu ls izHkkfor dkjd
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- 1- lk/kkj.k vkgkj esa rjy] dksey] mtkZ] iks" kd rRoksa ,oa js'kksa esa cnyko djds Hkkstu nsuk
- 2- isjsUVjy iks" k.k
- 3- QkWjewyk MkbZV ¼V~;wc QhfMax½
- 4- eksVkik & dkj.k] fu;U=.k ,oa vkgkj; ifjorZu,
- 5- vkrksa ls IEcU/kr chekfj;kWa ,oa vkgkj; ifjorZu&
 - isflVd vYlj & dkj.k] y{k.k ,oa vkgkfj; lq/kkj
 - vftrlk ,oa dCt & dkj.k ,oa vkgkj; ifjorZu

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- 1- ghisVkbfl ,oa fljksfll dh voLFkk esa vkgkj; ifjorZu
- 2- Toj & oxhZdj.k] mikip;u ,oa vkgkj; ifjorZu & V;wcjdyksfll ,oa VkbQkbM
- 3- e/kqesg & izd`fr] oxhZdj.k] fo'ks"krk;sa] e/kqesg dh flFkfr esa mikip;u ,oa vkgkj; ifjorZu
- 4- vfufe;k dh flFkfr esa vkgkj

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- 1- ,fFkjsLdsjksfll & [krjk] vkgkj dk ;ksxnku ,oa ifjorZu gkbZijVsU`ku & jksdFkke] vkgkj; ;ksxnku ,oa ifjorZu
- 2- °n; IEcU/kh chekfj;ksa esa vkgkj; izcU/ku & vkgkj esa ifjorZu
- 3- o`Dd ls IEcU/kr chekfj;kaW& Xykses:yksusQjkbfl] usQzksfVd flUMªkse] usQzksfLdysjksfll
- 4- xkmV & izd`fr] y{k.k ,oa vkgkj; ifjorZu & l;wjhu fu;U=d vkgkj
- 5- dSUIj & vkgkj; ifjorZu

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2 P/W**

- 1- Ikks"k.k rRoksa dh x.kuk rkfydk@,Dipsat fyLV }kjk
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 v- O;Ld efgyk ,oa iq:"k
 c- ;qok L=h ¼vk;ju dh x.kuk½
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 n- Ldwy tkus ls iwoZ ckyd dk fVfQu ftlesa iwjs fnu dh izksVhu dk ,d frgkbZ Hkkx] ,oa dSyksjh dk ,d
 pkSFkkbZ Hkkx
 ;- xHkZorh L=h ,oa Lruiku djkus okyh efgyk ¼vk;ju ,oa dSfY'k;e ds lkFk½
 j- etnwj oxZ dk de [kpZ vkgkj
 y- ,d efgyk dh vkgkj ;kstu tks fuEu iks"k.k ds dkj.k] chekfj;ksa ls xzflr gks
- 2- fpdfRIk }kjk vkgkj; ifjorZu] vkgkj dh ;kstu cukuk ,oa ijksluk
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 c- vfrlkj
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 n- eksVkkik
 ;- e/kqesg
 j- gkbjVsU'ku
 y- Toj
- 3- fof'k"V voljksa ij vkgkj fu;kstu
 tUefnu ikVhZ] R;ksgkj vFkok ;k=k ls IEcfU/kr
- 4- ,d ifjokj dk vkgkj; losZ{k.k vFkok fdlh vk;q oxZ fo'ks"k dk vkgkj; losZ{k.k
- 5- ,d o"khZ; ckyd ds fy;s ikjEifjd vkgkj ,oa fof'k"V ikSf"Vd ;qDr O;atu rS;kj djuk

**Paper – II
FOODS AND NUTRITION - IV
Food Science (FN IV)**

Time; 3 Hrs.
M.M.: 50

Unit: 1

Carbohydrate foods:

1. Cereals.
 - a. Structure and composition.
 - b. Processes done before cooking-milling, polishing, parboiling, flaking, parching roasting.
 - c. Various ways of using cereals-whole grain flour coarse fine and refined, convenience cereal food products.
 - d. Selection Storage and care.
2. Sugars:
 - a. Various type of sugar products – composition, manufacturing process and uses.
 - b. Properties of sugar.
 - c. Sugar Cookery- various behaviour of sugar in concentrated solutions and its uses.
 - d. Storage and care.
3. Starchy food:
 - a. Structure of starch cell.
 - b. Changes produced in starch cell during cooking.
 - c. Factors required control in starch cookery.
 - d. Various preparation using starch food.

Unit: 2

Protein foods:

Animal sources.

- a. Milk and Milk Products:
 - i. Kinds, composition, nutritive contribution.
 - ii. Preparation of milk products.
 - iii. Processing techniques-Pasteurization, homogenization.
 - iv. Use of milk in food preparation- effect of heat and acid, various uses.
 - v. Selection of milk and milk products, care of milk in the home.
- b. Egg:
 - i. Structure, composition and nutritive value measures of quality and grading of eggs.
 - ii. Egg cookery factors affecting whipping, quality of eggs and heat coagulation of egg protein, uses of eggs in cookery, methods of cooking eggs and egg dishes.

Unit – 3

(A) Flesh foods (meat, fish and poultry).

- i. Kinds, composition and nutritive value, structure of muscle.

- ii. Postmortem changes and ageing of meat, factors affecting tenderness.
 - iii. Meat Cookery-change during cooking.
 - iv. Curing process.
 - v. Selection and storage at home.
- (B) Vegetable sources.
- Legumes and pulses.
 - 1. Structure, composition, cooking methods, effect of soaking, germination and soda during cooking.
 - 2. Various preparations, incorporation of pulses in high protein vegetables mixes.
 - Nuts and Oil seeds-Nutritive value and importance.

Unit: 4

Fats and Oils:

- a. Kinds (edible), composition and properties.
- b. Manufacturing Process-separation/extraction, refining process and hydrogenation.
- c. Importance in Cookery.
- d. Changes in fats and oils on heating.
- e. Rancidity of fats.
- f. Selection and care during storage.

Protective foods-Fruits and vegetable.

- i. Classification, composition and importance in diet.
- ii. Pigments present.
- iii. Cooking of vegetable and changes that take place during cooking: effect of heat and alkali.
- iv. Selection and storage at home.

Condiments and spices herbs, colouring and flavouring agents, uses in Indian cookery.

Unit: 5

- 1. Beverages – Types, nutritive contribution and preparations.
- 2. Introduction to special foods – Novel foods, convenient foods, space foods, uncommon and non-conventional foods.
- 3. Food Additives-types and functions.
- 4. Food Safety.
 - a. Food borne infections, Source and Prevention.

REFERENCE BOOKS

Norman, P.N.: Food Science
 Palmer: Food Theory and Application
 Charley, H: Food Science
 Shakuntala Manay: Food Science
 Marry and Benin: Introductory Food
 Griswald: The Experimental Study of Food
 Peckam, G.C.: Foundation of food preparation
 Meyer, L.H.: Food Chemistry
 Shadaksha Swamy: Food foundation

PRACTICAL FOODS AND NUTRITION - IV Food Science (FN IV)

3 Pd./W
 Internal – 10
 External - 10
 M.M. : 20

- 1. Weights and measures and cooking methods (to be revised)
- 2. Cereal Cookery- various preparation showing
 - A. Dextrinization- chapatti, bread, toast
 - B. Gelatinization-corn Starch cooking (custard), Kadhi, plain rice
 - C. Separation of grains by use of fat and dry heat-field rice, lapsi etc.
 - D. Gluten formation and factors affecting its formation soft puri, crisp puri
- 4. Sugar Cookery
 - a. Preparations showing syrups of various strength
 - b. Preparation in which
 - (i) size of crystal formed is controlled
 - (ii) Preparation of bura
 - (iii) Crystal formation of sugar is prevented
 - c. Some function of sugar are shown
 (Rawa- Ladoo, Batasha, Syrups, Sugar Candy)
- 5. Pulses, nuts and oil seeds
 - a. Effect of nature of water (hard and soft), acid and alkali on texture and doneness of pulses
 - b. Ways of making complete protein
- 6. Milk Cookery- Preparations using milk and milk products – Khoya and Paneer
- 7. Egg Cookery – preparations showing functions of Egg in cooking foaming, leavening, coating, binding, flavoring and colouring

8. Cooking of flesh foods – various preparations using meat, fish and poultry
9. Vegetable Cookery- Effect of acid, alkali, heat and covering on the color and doneness of vegetables
10. Sensory evaluation
11. Planning and preparing nutrient rich dishes, (one serving) providing- one third of day's requirement of Protein, Calcium, iron, vitamin A, thiamine, Riboflavin, niacin and ascorbic acid, calculate calorie and cost of the above dishes
12. Visit to a food processing unit
13. Preparation of a Nutrition educational aid

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l- vuktksa dks mi;ksx esa ykus ds rjhds & lkcqr vukt vkVk] l[r] ckjhd ,oa fjQkbUM] vklkuh ls rS;kj gksus okys vukt ds fofHkUu izdkj
n- p;u] laxzg.k ,oa ns[kHkky
- 2- 'kdZjk;sa
v- fofHkUu izdkj dh 'kdZjk;sa& laxBu] rS;kj djus dh fof/k ,oa mi;ksfxrk
c- 'kdZjkvksa ds xq.k
l- 'kdZjk dks idkus dh fof/k;kWa & fofHkUu izdkj dh lkUnzrk ?kksy esa 'kdZjk dh izofÜk ,oa mi;ksx
n- laxzg.k ,oa ns[kHkky
- 3- LVkpZ ;qDr [kk] inkFkZ
v- LVkpZ lsy dh cukoV
c- idkrs le; LVkpZ esa gksus okys ifjorZu
l-LVkpZ dks idkrs le; fu;U=.k esa j[kus okys dkjd
n- LVkpZ [kk] inkFkZ dks cukus ds fofHkUu rjhds

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- tUrqvksa ls izklr
- 1- nw/k ,oa nqX/k mRikn
v- fofHkUu izdkj] laxBu ,oa ikSf"Vd ;ksxnku
c- nqX/k mRikn dks cukus dh izfØ;k
l- rS;kj djus dh rduhdsa & ikLpqjhdj.k] gkseksftuhdj.k
n- idkus dh dyk esa nw/k dk iz;ksx & rki ,oa ,flM dk izHkko
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 - 2- vUMk
v- cukoV] laxBu] ikSf"Vd ;ksxnku] vUMs dh xzsfMax ,ao xq.k dks igpkuuk
c- vUMs dks idkus dh dyk & QasVrs le; izHkkfor djus okys dkjd] vUMs ds xq.k] vUMs dh izksVhu ij Ldanu dk izHkko] ikd dyk esa vUMs dh mi;ksfxrk] vUMs ds fofHkUu O;tuksa dks rS;kj djus dh fof/k;kWa

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- 1- ekWalkgkj [kk] inkFkZ ¼ehV] eNyh] eqxhZ½
v- fofHkUu izdkj] laxBu ,oa ikSf"Vd ewY;] ekWI dh cukoV
c- EkWkl dks dkVus ds ckn gksus okys ifjorZu ,oa ekWI dh vk;q dk izHkko] ekaWI dks eqyk;e j[kus esa izHkkfor djus okys dkjd
l- ekWal dks idkuk & idkrs le; gksus okys ifjorZu
n- lkQ djus ds rjhds
;- p;u ,oa ?kj esa laxzg.k
- 2- ikni [kk] inkFkZ & Qfy;kW ,oa nkysa
v- cukoV] laxBu] idkus ds fofHkUu rjhds] fHkxksus dk izHkko] vadqj.k ,oa idkrs le; lksMk dk iz;ksx] nkyksa dk fofHkUu izdkj ls cukuk & nkyksa dks lfCt;ksa ds lkFk fefJr dj iz;ksx esa yukuk ¼de izksVhu ,oa mPp izksVhu lfCt;ksa ds lkFk½
c- lw[ks esos ,oa rsy ;qDr cht & ikSf"Vd ewY; ,oa egÜkk

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- 1- olk ,oa rsy
v- fofHkUu izdkj] laxBu ,oa xq.k
c- cukus dh izfØ;k & vyx djuk@rsy fudkyuk
l- ikd dyk eas egÜkk
n- p;u ,oa laxzg.k djrs le; ns[kHkky

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 l- p;u ,oa ?kj esa laxzg.k
 elkys ,oa [kq'kcqnkj elkys] gcZ] jax ,oa lqxfU/kr Ekekys Hkkjrh; ikd dyk esa elkyksa dk
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- 1- is; inkFkZ & izdkj] ikSf"VD ewY; ,oa cukus dk rjhdk
- 2- fof'k"V izdkj ds [kkj] inkFkZ & uksosy QwM] vklkuh ls rS;kj HkksT; inkFkZ] Lisl QwM] vlk/kkj.k ,oa xSj ikjEifjd HkksT; inkFkZ
- 3- [kk] ;ksxt & izdkj ,oa dk;Z
- 4- [kk] lqj{kk
- 5- [kk] inkFkZ ls gksus okys laØe.k & L=ksr ,oa cpko

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 2 P/W

- 1- uki ,oa rksy rFkk ikd dyk dh fof/k;kaW ¼iwokZyksdju½
 vukt dk iz;ksx djrs gq, cukus dh izfØ;k;saA
 v- MSDV^ahukbts'ku & pikrh] czsM] VksLV
 c- ftysVhukbts'ku & dksZUK LVkpZ ¼dLVMZ½
 l- [kk]kuksa dk vyx gksuk & olk dk iz;ksx ls] rki ls] ry dj] ykilh vkfn
 n- XywVu dk cuuk rFkk bldks izHkkfor djus okys dkjd & eqyk;e iwjh] l[r iwjh
- 2- 'kdZjk & 'kkL= dyk
 v- 'kdZjk dks idkrs le; fofHkUu lUnzrk ds ?kksy
 c- iz;ksxkRed fof/k
 - fØLVy cuus ds vkdkj dk fu;U=
 - cwjk cukuk
 - 'kdZjk dk fØLVy cuus ls jksduk
 l- 'kdZjk dk iz;ksx djrs gq, cus O;atu & ¼ajok] yM~Mw] crk'kk] flj] 'kqxj dsUMh½
- 3- nkysa] lw[ks esos ,oa rsy;qDr cht
 v- nkyksa ij [kkjk ,oa ehBs ikuh dk izHkko] izfØ;k ij izHkko
 c- lEi.kZ izksVhu ;qDr O;atu cukus ds rjhds
- 4- nw/k ikd 'kkL= & nw/k ls cus fofHkUu O;tu o nqX/k mRikn ls cus O;atu & [kks;k ,oa iuhj dk iz;ksx
- 5- vUMk ikd'kkL= & vUMs dh ikd dyk fof/k;ksa dk iz;ksx djrs gq, fofHkUu O;atu & Qkse }kjk] ysfofuax] dksfVax] ckbZfMUx] ¶ysofj] jax dk izHkko ns[krs gq, fofHkUu O;atu rS;kj djuk
- 6- ekWl;qDr HkksT; inkFkZ rS;kj djuk & ekWal eNyh ,oa eqxhZ dk iz;ksx djrs gq, rS;k O;atu
- 7- lfCt;ksa dk ikd'kkL= & lfCt;ksa ij vEy ,oa {kkj dh izfrfØ;k] rki ,oa jax dk iw.kZ :l ls rS;kj lfCt;ksa ij izHkko
- 8- lsUljh boSYw,s'ku
- 9- ikSf"Vd O;atu dh ;kstuk ,oa cukus dh izfØ;k] izfr nSfud ek=k dk ,d frgkbZ Hkkx ftlls izklr gks & izksVhu] dSfY'k;e] vk;ju] foVkfue ,] Fkk;feu] jkbcks¶ysof] uk;flu ,oa ,LdkfcZd ,flM bR;kfn ds rS;kj O;atu] budh dSyksjh ,oa ewY; dh ek=k fudkysa
- 10- fdlh Hkh QwM QSDVjh dk fØ;kRed dk;Z ns[kus dh tkudkj ysa
- 11- iks"k.k lECU/kh fo"k; lkezkh dk p;u djrs gq, dksbZ fu;qv^ah'ku ,tqds'kuy ,M cuk;saA

Paper- III HOME MANAGEMENT - III (H.MGT.III) Family Economics

M.M. : 50
 Time: 3 Hrs.

Unit : 1 Family Economics

1. Human wants : origin characteristics and classification
2. Consumer behavior
 - a. Law of Diminishing marginal utility

- b. Law of substitution
 - c. Indifference curve
 - d. Consumer surplus
3. Markets : Types of Market, types of purchasing

Unit : 2 1. Family accounting

- a. Budgeting definitions, importance and steps in planning a budget
- b. Record Keeping- short and long term methods of account keeping

2 Saving and Investment

- a. Importance of saving
- b. Factors determining saving
- c. Characteristics of investment
- d. Types of savings and channels of investment
- e. Institutions of savings

Unit : 3 1. Legal aspects of property ownership (special reference to women)

- a. Inheritance of property
- b. Trust and will

2 Tax – (A) Definition, Cannons of taxation

(B) Classification Proportional and progressive tax, direct and indirect tax, specific and Advance tax

(C) Main taxes in India- Income tax, corporation tax, Excise duty, custom duties, wealth tax, gift tax, entertainment tax, agricultural income tax, professional tax

Unit : 4 Consumer Economics

1. Consumer education: Rights and responsibility
2. Programmes for consumer protection
3. Agencies for consumer protection
4. Standardization
 - a. Labelling
 - b. Adulteration control
5. Sales promotion techniques
6. Factors influencing consumer demands

Customs and tradition, conspicuous, consumption, fashion advertisement, malpractices, price, income and credit opportunities

Unit : 5 Home maker as an Entrepreneur advantages and additional responsibilities

- a. Areas of entrepreneurship for a Home scientist, Daycare centers, crèche, child guidance centers, nursery school, resources centers

Nutritional advisor, preservation units, mobile food vans and hot lunch vans
Designing and preparing children's garments, boutique
- b. Market research : Process and advantages (in brief)
- c. Arranging for finances Banks and Institutions
- d. Determinants of pricing, common channels of distribution and its selection
- e. Nature of selling and sell positions

REFERENCE BOOKS

Home Economics

Home Management: Gross & Crandle

Marketing: M.C. Denial C.

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3 P/W

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- 1- ekuo vko';drk,a% mRifÙk] fo'ks"krk,a vkSj oxhZdj.k
- 2- miHkksDrk O;ogkj
 - v- lhekUr mi;ksfxrk âkl fu;e
 - c- izfrLFkku fu;e
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- 3- cktkj% cktkj ds izdkj] [kfjnkjh ds izdkj

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- 1- ikfjokfjd
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 - c- ys[kk&tks[kk j[kuk & ys[kk j[kus ds y?kq ,oa nh?kZ dkyhu rfjds
- 2- cpr ,oa fuos'k
 - v- cpr dh egÙkk
 - c- cpr dks izHkkfor djus okys dkjd
 - l- fuos'k dh fo'ks"krk,a

n- cpr ds izdkj vkSj fuos'k ds izdkj

;- cpr ds fy, ILFkk,a

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1- IEifr mRrjfk/kdkjh ds dkuquh ¼efgykvksa ds lanHkZ esa½

v- IEifr dk gLrkUrj.k

c- V^aLV ¼U;k½ ,oa olh;r

2- VsDI ¼dj½

v- ifjHkk"kk & dj/kku ds fl)kUr

c- dj oxhZdj.k & vkaf'kd ,oa izxfr'khy dj] izR;{k ,oa vizR;{k dj] fof'k"V ,oa vfxze dj

3- Hkkjr ds izeq[k dj % vk;d] fuxe dj] mRikn 'kqYd] lhek 'kqYd] LokLF; dj] migkj dj] euksjtu dj] d`f"k vk;d] O;olkf;d dj

bdkbZ & 4 miHkksDrk vFkZ'kkL=

1- miHkksDrk f'k{kk& vf/kdkj ,oa ftEesnkfj;ka

2- miHkksDrk Ija{k.k ds fy;s dk;ZØe

3- miHkksDrk Iaj{k.k ds fy, ILFkk,a

4- Lrjhj.k

v- ukaekfdr djuk

c- feykoV jksduk

5- foØ; c<kus dh rduhd

6- miHkksDrk ekax dks izHkkfor djus okys dkjd&dLve ,oa ijEijk] fof'k"V [sou] QS'ku foKkiu] dnkpkj] ewY;] vk; ,oa ØsfMV volj

bdkbZ & 5 x`g çcU/kd tSls m|ferk% ykHk ,oa lecfU/kr ftEesnkfj;k

1- x`g oSKkfud ds fy, m|ferk ds {ks=& Ms ds;j dsUnz] Øsp ¼acky?kj½] cky funsZ'ku dsUnz] ulZjh Ldwy] L=ksr dsUnz

iks"k.k lykgdkj] [kk] Ij{k.k] eksckby [kk] oSu

cPpksa ds dims fMtkbu djuk ,oa cukuk] cwVhd

2- cktkj losZ{k.k & izfØ;k ,oa ykHk ¼la{ksi½

3- vkfFkZd Igk;rk & cSad ,oa laLFkk

4- ewY; fu/kkZjd] forj.k gsrq dk pquko

5- fcfØ dh izd`fr ,oa foØ; Lrj

Paper- IV
HOME MANAGEMENT- IV
(H.MGT.IV)
Household Equipment

M.M. : 50
Time : 3 Hrs

Unit : 1 1. Materials used for household equipment:

- a. Basic materials properties, suitability and maintenance
- b. Metals used for cooking utensils and serving utensils

Unit : 2 1. Electricity: Generation, transmission, current, wiring the home, circuits, motors, safety devices, electrical accessories

2. Heat: Production and transmission, measurement, control, specific heat and latent heat

Unit : 3 Principles involved in operation of the following household equipment and selection, use care and maintenance:

1. Small Kitchen tools measuring cups and spoons, Sifters and strainer
Beaters and mashers
Knives and forks
Cutters and Slicers
Peelers and graters
2. Pressure cookers, Solar Cooker
3. Kettles and Coffee Percolators
4. Toasters
5. Ovens and Gas Tandoor
6. Cooking Range

Unit : 4 Mixers and Blenders

Refrigerator
Thermos flask and Ice Boxes
Brooms and Brushers
Vacuum Cleaner

Unit : 5 Washing machine

Irons
Electric water heaters
Room coolers, Fans
Room heaters
Hair dryer

**PRACTICAL
HOME MANAGEMENT - IV**

Internal Marks : 10
External Marks : 20

1. Drawing of sectional elevations, Lighting treatment
2. Introduction to concept of Landscaping
3. Development of designs and construction of any two
 - a. Cushions, curtains, carpets, Door mats, Rugs, Table mate
 - b. Wall Painting, Pictures form designs
 - c. Crafts out of fiber, Fabric, coir clay metal
4. Flower arrangement for different places & occasions
5. Floor decoration Different type Alpana, Rangoli
6. Meter reading, fixing fuse, gas cylinder fitting, plug & different circuit series and parallel
7. Constructional details of Kitchen and Storage units
8. Furniture layout of commercial area any two relevant office, shop, clinic, parlour, nursery school
9. Developing a project proposal keeping in mind the techno economic feasibility for establishing an enterprise
10. Present/ organize /demonstration/seminar on the developed project in the class

**isij & IV
?kjsyw midj.k**

**MM&50
3 P/W**

bdkbZ & 1

- 1- ?kjsyw midj.kksa ds fy, iz;ksx yh tkus okyh lkexzh
v- ewy lkexzh dh fo'ks"krk,Wa] vuqdwyrk o j[k&j]kko
c- [kkuk cukus o ijkslus ds fy, iz;ksx gksus okys cruksa dh /kkrq ¼izdkj½

bdkbZ & 2

- 1- fo|qr & mRiknu] izlkj.k] fo|qr izokg] ?kj esa fctyh ds rkj f[akpuk] fo|qr ifjiFk] eksVj] lqj{kk lk/ku] fo|qr lgk;d lkexzh
- 2- rki ¼Å"ek½& mRiknu o izlkj.k] eki] fu;a=.k] fof'k"V Å"ek o xqlr Å"ek

bdkbZ & 3

- 1- fuEu ?kjsyw midj.kksa ds iz;ksx ds fl)kUr o budk pquko] iz;ksx fof/k o j[k&j]kko
v- jksbZ esa iz;qDr lkekU; vkStkj & ekid di o pEep] Nyuh o pyuh] vaMk rkfM+r ¼,x chVj½ o eS'kj ¼elyus okyk½ fofHkUu izdkj ds & pkdw] Nqjh o dkWavSa dkVus o QkWd djus esa iz;ksx vkus okys midj.kA Nhyus okyk pkdw o dlqdl
c- izs'kj dgdj o lksyj dgdj
l- fctyh pfyr pk; dsryh o dkQh cukus dh e'khu
1. fo|qr VksLVj
;- fo|qr vksou o xSl ranwj
j- dqfdax jast

bdkbZ & 4

- 1- feDlj o lfEeJd ¼CysaMj½
- 2- jsfQztjsVj
- 3- Fkjel QykLd o iz'khrd isVh ¼vkbl ckDI½]
- 4- >kMq o cz'k
- 5- oSD;we Dyhuj

bdkbZ & 5

- 1- okf'kax e'khu ¼oL= /kksus dh e'khu½
- 2- bLrjh
- 3- fo|qr ty rkid
- 4- d{k 'khryd ¼:e dwyj½] ia[kk
- 5- d{k rkid ¼:e ghVj½
- 6- cky lq[kkus dh e'khu ¼gs;j M^ak;j½
- 7- jsfM;ks o Vsyhfotu
- 8- Lukux`g esa yxus okyh lgk;d lkexzh

izLrkfor fdrkcsa%&

- 4- Mk- c`Unk flag% x`g izca/k ,oa vkarfjd ITtk

- 1- izdk'k O;oLFkk
- 2- ySMaldsfid ds vFkZ ls ifjp; djkk
- 3- fdUgh Hkh nks dk fMtkbu ,oa cukuk
v- dq'ku] ijnsa] dkyhu] ik;nku] jax] Vscy esV
c- okWY isafVx] fofHkUu fMtkbu dh fp=
l- /kkxksa] diMksa] dkW;j ,oa Dys ls dykd`fr cukuk
- 4- fofHkUu LFkkksa ,oa voljksa ds fy, iq"lk ITtk
- 5- Q'kZ ITtk & fofHkUu izdkj dh vYiuk] jaxksyh
- 6- ehVj iBu & ¶;wt fQDI djuk] xSI flysaMj fQVhax] lyx vkSj fofHkUu lfdZV dh Js.kh cukuk
- 7- jlkBZ?kj vkSj lxzag.k {ks=ksa dk fuekZ.k
- 8- QuhZpj ys vkmV djuk ¼fdUgh nks dk½ vkWfQI] nqdku] Dyuhd] ikyZj] ulZjh Ldwy
- 9- m|ferk fodkl ds fy, rdudh vkfFkZd /;ku esa j[krs gq, ,d izkstDV cukuk
- 10- iwoZ fufeZr izkstDV dks d{kk esa dk;ZØe@lsfeukj@MseksLV^as'ku ds }kjk iznf'kZr djuk

Paper- V
Human Development –III
(HD III)
Marriage and Family

M.M. – 50
Time – 3 Hrs.

Unit 1 Long term goals and motives in life;

- a. Marriage
- b. Singlehood
- c. Co-living-nature
- d. Forms and importance of marriage, mate selection: Self and Arranged, points to keep in mind for mate selection

Unit 2 Adjustment and success in marriage:

- a. Marital adjustment : Meaning, importance and factors influencing it
- b. Interpersonal and intrapersonal adjustment in marriage:
 1. Sexual and emotional
 2. Work and money
 3. In-law relationship
 4. Friends

Unit 3 Conflicts in marriage:

- a. Causes of disharmony in marriage
- b. Divorce and desertion : consequences and influence
- c. Widow-hood, Remarriage : Consequences and influence
- d. Marriage and Family Counselling : Concept, Types and availability of Family courts

Unit 4 Family

- f. Meaning Definitions and Importance of Family
- g. Types of family
- h. Functions of family
- i. Roles : Meaning, definition and Importance of Roles in family

Unit 5

- a. Social change and family Implications for child in context of composition and relationship
- b. Parental Practices : Dimension of control and Responsiveness
- c. Family life cycle : The eight stages and their development tasks
- d. Rights of children, Parental Responsibilities

REFERENCE BOOKS

Dutt: A book of Marriage and Family
D'souza, Alfred: Happiness in Marriage
Nurlock, E.: Development Psychology
Devdas & Jaya: A Text book of Child Development Goode: the Family
Knox Fabif: Exploring Marriage and the Family
Rice, F. Philip: Contemporary Marriage
Kuppu Swamy: Social Change in India
Kapadia: Marriage and Family in India

HD III
fookg vkSj ifjokj

MM&50
3 P/W

bdkbZ & 1 thou ds nh?kZ dkyhu y{; vkSj bjknsaA

- 1- fookg
- 2- dqWokjkiu
- 3- lg jgus okyh izd`fr
- 4- fookg ds izdkj vkSj egÙkk
thou lkFkh dk pquko% Lo; vkSj ekrk firk }kjk r; fd;k fookgA thou lkFkh ds p;u ds fy,
fcUnqvksa dks efLr"d esa j[kuk

bdkbZ & 2 fookg esa lek;kstu vkSj IQyrk

- 1- oSokfgd lek;kstu% vFkZ[egÙkk vkSj bls izHkkfor djus okys rRo
- 2- ikjLifjd vkSj bUVjkiZIZuy
v- ySafx vkSj laosxkRed lek;kstu
c- dk;Z vkSj vk;
l- llqjky esa IEcU/k
n- fe=ksa

bdkbZ & 3 fookg esa la?k"KZ

- 1- fookg esa vlketL; ds dkj.k
- 2- rykd vkSj ifjR;kx% ifj.kke vkSj izHkko
- 3- fo|okiu] iqu% fookg% ifj.kke vkSj izHkko
- 4- oSokfgd vkSj ifjokfjd ijke'kZ% izR;;] izdkj] ikfjokfjd U;k;ky; dh miyC/krk

bdkbZ & 4 ifjokj

- 1- vFkZ] ifjHkk"k,Wa vkSj ifjokj dk egÙo
- 2- ifjokj ds izdkj
- 3- ifjokj ds dk;Z
- 4- Hkqfedk% vFkZ] ifjHkk"kk vkSj ifjokj esa Hkwfedki dk egÙo

bdkbZ & 5

- 1- lkekftd ifjorZu vkSj ifjokj dh jpuk vkSj IEcU/k ckyd ij fufgrkFkZ
- 2- ekrk&firk dh vfHko`fr;kWa% fu;a=.k vkSj vuqfØ;k'khyrk ds vk;e
- 3- ifjokfjd thou&pØ% vkB voLFkk,Wa vkSj muds fodklRed dk;Z
- 4- ckydksa ds vf/kdkj vkSj ekrk&firk dh ftEesnkfj;kWA

Paper- VI
HD - IV

Pre-School Children: Education, Guidance & Counseling

M.M. – 50
Time – 3 Hrs.

Unit I

- a. Changing ideas of childhood.
- b. Historical Development of Pre-School Education in west : Brief Mention of Methods and Philosophies of comenius, Roussean, Pestalozzi, Froebal, Montessori and Dewey.
- c. Pre School Education in India: Brief Mention of Methods and Philosophies of Montessori, Tagore, Gandli, Giju Bhai bhadaka & Tara bai Modak.

Unit 2

- a. Curriculum Models for Pre School:
 1. Child Development Model.
 2. The verbal/cognitive Model
 3. The Sensory /cognitive Model.
 4. The Verbal/Didactic Model.
- b. Nursery School Building and Equipment.
- c. Planning a day's activity for a Nursery School and Role of Nursery School Teacher.

Unit 3

- a. Children with Special Need: Definitions, causes & Need for Early Detection and Intervention.
- b. Types of Disabilities: Characteristics.
 1. Sensory Deficits-visually & Hearing impairment
 2. Mental Retardation.
 3. Learning Disabilities.
 4. Common behavioral Problems of Children. Causes and Prevention.

Unit 4 Child Guidance and Counseling.

- a. Concept, aims, scope, Principles of guidance & counselling with Reference to Child Development.
- b. Competencies of Child guidance worker & Counselor.
- c. Process of Child Guidance and Counseling.

Unit 5 a. Different Techniques of Guidance and Counseling.

- 1). Behavior Modification.
- 2). Play Therapy
- 3). Case Study
- b. Other Counseling.
 - 1). Marital Counseling
 - 2). Family Counseling
 - 3). Adolescent & Vocational Counseling
- c. Salient Requirement of Setting of Child Guidance and Child Counseling related to Physical, Financial & Personnel.

REFERENCE

- Grewal, J.S.: Early Childhood Education foundation and Practice
 Agrawal: Theory and principles of Education philosophical and sociological bases of education
 Gedkar, Somaiya: Disabled in India 1983
 Groock Shank: Psychology of Exceptional Children and Youth 1955
 Dapur, S.: Changing Status of working women in India 1974

Practical (HD)

M.M. – 25
 Interval – 10
 External - 15

1. Use of basic tests:
 - Intelligence test WISC & WPPSI.
 - Baleys Scale of Infant Development.
 - Projective test CAT and TAT
2. Preparing One educational Maternal for Children with special need
3. Interview Adolescent Children and their parents for
 - a. Sex Differences in socialization
 - b. Effects of family size on Parental Practices
 - c. Effects of Maternal employment
 - d. Sibling relations
4. Preparation of report along with reference writing
 - a. Visits to Institution of child Welfare. SOS Village, Orphanage, School for blind deaf and dumb.
 - b. Arranging Video Films, Slide Shows: Preparing a Report of these visits/films
 - c. Story Telling and Conduction of activities for Pre-School Children.
5. Presenting a Lecture/Demonstration/Seminar on issues related to guidance & Counselling

Examination Scheme

1. Preparation of Education Material for children with special need -4
2. Spotting on Basic Tests - 4
3. Story telling/ conducting Activities for children - 4
4. Viva – 3

isij VI

iwoZ 'kkyh; ckyd% f'k{kk} funsZ'ku vkSj ijke'kZ

MM&50
 3 P/W

bdkbZ & 1

- 1- ckY;koLFkk dh cnyrh fopkj/kkjk
- 2- if'pe esa iwoZ'kkyh; f'k{kk dk ,frgkfld fodkl% dksesfu;l] :lks] isLVksykWth] ÝkWacy] ekUVsljh vkSj fMch dh fof/k;ksa vkSj fl)kUrksa dk laf{klr mYys[k
- 3- Hkkjr esa iwoZ&'kkyh; f'k{kk% fuEu dh fof/k;ksa vkSj fl)kUrksa dk laf{klr mYys[kA ekWUVsljh] VSxksj] xkW/kh] /khtw HkkbZ ckMsdk vkSj rkjk HkkbZ ekWMd

bdkbZ & 2

- 1- iwoZ'kkyk ds ikB~;Øe uewus ¼EkkWMy½
 - v- cky fodkl ekWMy
 - c- ekSf[kd@laKkRed ekWMy
 - l- laosnh@laKkRed ekWMy
 - n- ekSf[kd@izcks/kd ekWMy
- 2- ulZjh Ldwy dh bekjr vkSj midj.k
- 3- ulZjh Ldwy dh ,d fnu dh xfrfo/k;ksa dh ;kstuk cukuk vkSj ulZjh Ldwy ds f'k{kd dh Hkwfedk

bdkbZ & 3

- 1- ckyd ftUgsa fo'ks"k vko';drk% ifjHkk"kk] dkj.k vkSj izkjfEHkd igpku vkSj gLr{ksi
- 2- v{kerkvksa ds izdkj fo'ks"krk,Wa
 - v- laosnkRed vHkko % va/ks vkSj cgjs ckyd
 - c- ekufld :lk ls fiNM+s ckyd@ean cqf) ckyd

1- vf/kxe vleFkZrk ls ;qDr ckyd

2- ckydksa esa lkekU; O;ogkj lEcU/kh leL;k,Wa] dkj.k vkSj fuokj.k

bdkbZ & 4 cky & funsZ'ku vkSj ijke'kZ

1- vfHk/kkj.kk] m)s';ksa] foLrkj {ks=} funsZ'ku ,oa ijke'kZ ds fl)kUr cky fodkl ds lUnHkZ esa

2- cky funsZ'ku dk;ZdrkZ ,oa ijke'kZdÜkkZ dh {kerk,Wa

3- cky funsZ'ku ,os ijke'kZ dh izfØ;k

bdkbZ & 5 funsZ'ku vkSj ijke'kZ dh fofHkUu rduhd

1- O;ogkj esa cnyko

2- [ksy fpdfRlk

3- dsl v/;;u

4- vU; ijke'kZ

v- oSokfgd ijke'kZ

c- ifjokj ijke'kZ

l- fd'kksjkoLFkk vkSj O;olkf;d ijke'kZ

5- 'kkjhfd] vkfFkZd vkSj deZpkjh oxZ ls lEcU/kr cky funsZ'ku vkSj cky ijke'kZ ØsUn yxkus dh eq]; vko';drk,Wa

izk;ksfxd ijh{kk iwoZ 'kkyh; ckyd% f'k{kk} funsZ'ku vkSj ijke'kZ

**MM&25
vkUrfjd & 10
Ckká & 20
2 P/W**

1- Cksfld ijhf{k.kksa dk mi;ksx

v- cqf) ijh{k.k WISC & WPPSI

c- f'k'kq fodkl dk csjht Ldsy

n- iz{ksih ijh{k.k CAT vkSj YSY

2- fo'ks"k vko';drk okys ckydksa ds fy, ,d 'kSf{kdk lkexzh cukuk

3- fd'kksj ckydksa o muds vfHkHkkodksa dk lk{kkRdkj

v- lekthdj.k esa fyax vUrj

c- ifjokj ds vkdkj dk vfHkHkkod fof/k;ksa ij izHkko

l- ekrk ds jkstxkj dk izHkko

n- HkkbZ cgu lEcU/k

4- jsQjsUI fy[kkbZ ds lkFk fjiksV cukuk

v- cky dY;k.k] ,l-vks-,l- xkWo] vukFkkJe] va/ks] xwwaxs vkSj cgjs ckyd dh lLFkkvksa esa Hkze.k

c- fofM;ks fQYe] Lyk< 'kks dh O;olkf;d djuk% bUgh Hkze.k@fQYe ij fjiksVZ rS;kj djuk

l- iwoZ 'kkyh; ckydksa dks dgkuh lqkuk vkSj xfrfof/k;kWa djokuk

5- funsZ'ku ,oa ijke'kZ ds eqls ij ysDpj@izn'kZu lsfeukj izLrqr djuk

Paper- VII CLOTHING AND TEXTILE - III (C.I.T.III) Family Clothing and Historic Textiles

**Time 3 Hrs
M.M. 50**

Unit : 1 a. Psychological and Sociological influence of clothes

b. Design defined and applied to clothing appearance

i. Design Structural and decorative

ii principles of design-harmony, rhythm, proportion and emphasis

iii Elements of design-color, line, form, texture and shape

Unit : 2 a. Selection of suitable fabrics and clothing according to

j.) Age ii.) Fashion iii.) Occupation iv) occasion v.) Climate

b. Selection and buying of fabrics for various uses in the home

i) Linenii) Floor Coverings iii) Draperies, Curtains and upholstery

Unit : 3 a. Buying of readymade garments:

i) Appearance: Size, Design, line and color

ii) Fabric: durability, ease of care

iii) Workmanship- Cutting, sewing, fitting

b. Clothing Budget and consumer problems related to textiles

c. Informative labeling and standardization

Unit : 4 a. Common fitting, problems and their remedies

b. Principle of drafting, commercial paper pattern and draping

c. Mending and renovation

d. Concept, meaning, nature, need and scope for entrepreneurship

Unit : 5 Traditional textiles and embroideries of different states of India

- a. Kashmir Shawls and Carpets
- b. Punjab-Phulkari
- c. Bengal-Kanthas, Baluchars, Jamdani
- d. U.P. Brocades and Chikankari
- e. Gujarat-Patola, Sind and Kutch embroidery
- f. Rajasthan-Bandhani
- g. Andhra Pradesh-Pochampali and Kalamkari
- h. Karnataka-Kasuti
- i. Orissa-Ikat

REFERENCE BOOKS

Sherie Doongaji and Roshni, Deshpande: Basic Processes of Clothing Construction
Pandit, Savitri; Manual of Children's Clothing
Thomson and Rea: Clothing for Children, John Wiley & Sons, N. York
Carson: How to Look and Dress, McGraw Hill Co., N. York
Erwin: Clothing for Moderns, McGraw Hill Co., N. York
Flugen, J.: Psychology of Clothes
Ryan, M.S.: Clothing Study in Human Behavior
Ryan, M.S.: Individuality in Clothing

PRACTICAL CLOTHING

M.M: 30
Internal : 10
External : 20

1. General Principles for Clothing construction:
 - a. Study of body measurements in relation to height and age
 - b. Taking body measurements for different types of garments
 - c. Importance of drafting and making paper patterns
 - d. Placing and cutting of pattern
 - e. Calculating the amount of material required for different garment
 - f. Preparation of fabrics, straightening shrinking and pressing
2. Drafting, cutting and stitching of the following garments.
 - a. Children-jhabla, jangia, Romper, Baba suit and frock
 - b. Lady's Salwar, Kameej, Saree, Petticoat and Blouse
 - c. Man's/boy's Pajama (plain and Churidar)
3. Renovation
4. Traditional embroidery on articles-any two
5. Knitting- any two of the following to be knitted
Baba suit, cardigan, pullover, sock on two or four needles

REFERENCE BOOKS

Doongaji, S. and Deshpandey, R: Basic Process of Clothing Construction
Pandit, S.: Manual of Children's Clothing

isij & VII

ikfjokfjd oL= ,oa ,sfrgkfld oL= & IV

MM&50
3 P/W

bdkbZ & 1

- 1- oL=ksa dk lkekftd ,oa euksoSKkfud izHkko
- 2- fMtkbu dh ifjHkk"kk] RkFkk oL= fn[kko esa iz;qUkrk
v- fMtkbu & l'japukRed ,oa vkyadkfjd
c- fMtkbu ds fl)kUr & vuq:irk] y;] vuqikr RkFkk cy
l- fMtkbu ds rRo & jax] js[kk] 'kSyh] iksr ,oa vkdkj

bdkbZ & 2

- 1- fuEufyf[kr ds vuqlkj mi;qDr oL=ksa dk pquko
v- vk;q
c- QS'ku
l- O;olk;
n- volj
;- ekSle
- 2- ?kj esa iz;ksx esa yk;s tkus okys oL=ksa dk pquko
v- fyuu
c- Q'kZ fcNkou
l- insZ] M^asijh rFkk vigksYIV^{ah}

bdkbZ & 3

- 1- jsMhesM oL=ksa dh [kjhnnkj
v- fn[kko % uki] fMtkbu] js[kk rFkk jax
c- oL= % etcwrh] vklku j[kj[kko
l- deZ dkS'ky % dfVax] flykbZ] fQfVax
- 2- oL= ctV rFkk oL=ksa ls IEcfU/kr miHkksDrkvksa dh leL;k,a
- 3- lwpukRed yscy rFkk ekudhdj.k

bdkbZ & 4

- 1- lkekU; fQfVax leL;k,a rFkk mudk lek/kku
- 2- M^akf[¶]Vax ds fl)kUr % O;olkf;d isij iSVuZ rFkk M^asfiar
- 3- ejEer rFkk uohudj.k
- 4- m|ferk dh vo/kkj.kk] vFkZ] izd`fr vo';drk ,oa vfHkizk;

bdkbZ & 5 Hkkjr ds fofHkUu çakrks ds oL= ,oa d'khns

- 1- d'kehj % 'kky ,oa xyhps
- 2- iatkc % Qqydjkh
- 3- cXkay % dkFkka] ckywpjh] tkenkuh
- 4- mRrj izns'k % czksdsM rFkk fpdudkj
- 5- xqtjkr % iVksyk fla/k ,oa dPN dk d'khnk
- 6- jktLFkku % ckU/kuh
- 7- vkU/kzizns'k % ikspeiYyh rFkk dyedkj
- 8- dukZVdk % dlwrh
- 9- vksfM'kk % bZdV

**izk;ksfxd ijh{kk
oL= foKku**

**MM&25
vkUrfjd & 10
Ckká & 15
2 P/W**

- 1- oL= fuekZ.k ds lkekU; fl)kUr
v- otu ,oa vk;q ds vuq:lk 'kjhj ds uki dk v/;;u
c- fofHkUu oL=ksa ds fy, 'kjhj dk uki
l- M^akf[¶]Vax rFkk isij iSVuZ dk egRo
n- iSVuZ dk izfr"Bkiu rFkk dfVax
;- fofHkUu oL=ksa ds fy, diM+s dk vkdyu
j- diM+s dh rS;kjh & lh/kk djuk] fldksM+uk rFkk izsl djuk
- 2- fuEufyf[kr oL=ksa dh M^akf[¶]Vax] dfVax ,oa flykbZ
v- cPpksa ds oL= % >cyk] tkf?ka;k] jksEij] ckcklwV ,oa ÝkWd
c- ysMht lyokj deht] lkM+h isVhdkSV ,oa Cykmt
l- iq:"kksa dk ik;tkek ¼lknk rFkk pwM+hnkj½
- 3- uohudj.k
- 4- dksbZ nks ijEijkxr d'khns oL=
- 5- fufVax & dksbZ nks
ckcklwV] LosVj] iqyksoj] tqjkc & nks rFkk pkj flykbZ }kjk

**Paper – VIII
EXTENSION EDUCATION - II
Extension Education in Home Science and Rural Development**

M.M. : 50
Time : 3 Hrs.

Unit 1 Community Development

- a. Concept and characteristics of community
- b. Family, Groups, culture and neighborhood concept and characteristics
- c. Social change- Change and progress, Dimensions of social change, factors and direction of social change, acceptance and resistance of social change
- d. Social problems- basic understanding of social problem
- e. Social control- concept and forms of social control
- f. Community Development – Definition, philosophy, principle, and objectives of community development

Unit 2 Extension System in India

- a. Extension efforts –
 - Before Independence
 - After Independence
- b. Front Line Extension System
- c. Extension system of Ministry of Rural development
- d. Department of science and technology
- e. Role of nongovernmental organizations
- f. Government and non government collaboration

Unit 3 Support Structure and their Function

- a.
 - i.. Panchayat Raj Institution in India
 - ii. Zila Parishad
 - iii. State social welfare board
- b. Rural developmental Programmes, agencies and voluntary organization in rural development-
 1. Developmental Programmes for farm sector- FAO, NAREGS, TRYSEM
 2. Developmental Programmes for non farm sector- ICDS, SGSY, NIPCCD, WHO, DWACRA,
 3. Developmental agencies- RUDA, NABARD, ATMA, CAPART

Unit 4- Extension Program Planning

- a. Meaning, importance and criteria of Extension Program Planning
- b. Principles of Extension Program Planning
- c. Program Planning
 - (i) objectives in extension programme- level, determination of need, interest and writing of objectives
 - (ii) Steps of programme planning
 - (iii) Evaluation- meaning, types, uses and conduction of evaluation

Unit 5 women development

1. Problems faced by rural women- education, social problems, gender, female feticide, and economic dependency
2. Need and types of women empowerment
3. Economic empowerment
 - a. Self help group- meaning, principle and characteristics
 - b. Formation and organization and maintenance of records for self help group
 - c. Entrepreneurship development –
 - (1) Enterprise
 - (2) Steps in setting up a small enterprise
 - (3) process of entrepreneurship development
 - (4) characteristics of entrepreneur
 - (5) misconception about entrepreneurs

Reference :-

- Dhama, O.P. & Bhatnagar, O.P. : Education and Communication for Development, 1987
Dhama, O.P. & Bhatnagar, O.P. : Communication for Development, 1991
Mandal, S. & Ray, G.L., A text Book of Rural Development, 2007,
Ray, G.L., Extension Communication and management, 1999, Nays Prakashan, Calcutta
Reddy, A.A. , Extension Education, 1976, Shree laxmi press, Bapla, A.P
Extension Education in Community Development, Directorate of Extension Education, GOI, New Delhi

EXTENSION EDUCATION PRACTICAL

M.M : 20
Internal- 10
External 10

- i. Care and Use of Projectors
- ii. Survey of rural community and need assessment
- iii. Develop a rural developmental programme
- iv. Implementation of developed training programme
- v. Evaluation of the implanted programme

isij VIII

x`g foKku ,oa xzkeh.k fodkl esa çlkj f`k{kk

MM&50

bdkbZ & 1 lkeqnf;d fodkl

- 1- leqnk; dk vFkZ ,oa fo'ks"krk,a
- 2- ifjokj lewg] laLd`fr ,oa iMkSIh% vFkZ ,oa fo'ks"krk,a
- 3- lkekftd ifjorZu% ifjorZu ,oa fodkl] lkekftd ifjorZu ds vk;ke] dkjd ,oa lkekftd ifjorZu dh fn'kk] Lohd`fr ,oa :dkoV
- 4- lkekftd leL;k,a% lkekftd leL;kvksa dh ewyHkwr le>
- 5- lkekftd fu;=.k% vFkZ ,oa lkekftd fu;a=.k ds izdkj
- 6- lkeqnf;d fodkl% ifjHkk"kk] n'kZu] fl)kUr ,oa mls';

bdkbZ & 2 Hkkjr esa çlkj rU=

- 1- izlkj iz;kl% LorU=rk iwoZ o LorU=rk i'pkr
- 2- vkeq[k ifDr izlkj rU=
- 3- xzkeh.k fodkl ea=ky; dk izlkj rU=
- 4- foKku ,oa rduhdh foHkkx
- 5- xSj ljdkh laLFkkvksa dh Hkwfedk
- 6- ljdkh ,oa xSj ljdkh dh lgHkkfyrk

bdkbZ & 3 lgk;d ljpk,a vkSj budk dk;Z

- 1- v- iapk;rhjkt] Hkkjrh; ILFkka,
c- ftyk ifj"kn~
l- jk"V^{ah}; lekt dY;k.k foHkkx
- 2- xzkeh.k fodkl dk;ZØe] ,stsUIh ,oa Lo;alsoh ILFkak,
v- d`f"k {ks= ds fy, fodkl dk;ZØe & FAO] ujsxk] V^akble
c- d`f"k jfgr {ks= ds fy, fodkl dk;ZØe ICDS, SGSY, NIPCCED, WHO }kdjk
l- fodkl'khy ,tsUIht% ukckZM] vkRek] dikZV] :M+k

bdkbZ & 4 çlkj dk;ZØe ;kstuk

- 1- vFkZ] egUo ,oa izlkj dk;Z ;kstuk ds ekin.M
- 2- izlkj dk;Z ;kstuk ds fl)kUr
- 3- dk;ZØe ;kstuk
v- izlkj dk;ZØe ds mls';] Lrj] vko';drk dk fu/kkZj.k] :fp ,oa mls'; ys[ku
c- dk;ZØe ;kstuk ds pj.k
l- ewaY;kdu& vFkZ] izdkj] mi;ksx ,oa ewaY;kdu djuk

bdkbZ & 5 efgyk fodkl

- 1- xzkeh.k efgyk dh leL;k,a% f'k{kk] lekftd leL;k,a] fyax] dU;k Hkzq.k gR;k] vkfFkZd fuHkZjrk
- 2- efgyk l'kfDrdj.k dh vko';drk ,oa izlkj
- 3- vkfFkZd l'kfDrdj.k
v- Lo;a lgk;rk lewg% vFkZ] fl)kUr ,oa fo'ks"krk,a
c- Loa; lgk;rk lewg dk xBu] la;kstu ,oa lk{;ks dk j[k&j]kko
l- m]ferk fodkl
1- m]e
2- y?kq m]ksx LFkffir djus ds pj.k
3- l'kfDrdj.k fodkl dh izfØ;k
4- m]ferk dh fo'ks"krk,a
5- m]ferk ds izfr Hkzkafr;ka

**izk;ksfxd ijh{kk
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**MM&30
vkUrfjd & 10
Ckká & 20
2 P/W**

- 1- izkstdVj dh ns[kHkky ,oa mi;ksx
- 2- xzkeh.k leqnk; ,oa vko';drk tkuus gsrq losZ{k.k
- 3- xzkeh.k fodkl dk;ZØe dk fodkl djuk
- 4- fodkl'khy izf'k{k.k dk;ZØe ykxq djuk
- 5- izR;kjksfir dk;ZØe dk ewY;kadu

**Paper- IX
FOODS AND NUTRITION - V
(F.N. - V)
Community Nutrition**

M.M. : 50
Time : 3 Hrs.

Unit : I

1. The community

- a. Concept of community
- b. Concept and scope of community nutrition
2. Factors affecting food availability and intake- Agricultural production, population, economic, regional, social, education, distribution, religious and industrialization

Unit : 2

1. Food storage
 - a. Methods of storage of food grains
 - b. Agents causing losses of food grains and prevention
 - c. Fumigation of grains
2. Food adulteration
 - a. Meaning of food adulteration and food laws
 - b. Common food adulteration and health hazards
 - c. Agencies checking food adulteration

Unit : 3

1. Nutritional problems of the community causes and incidence of nutritional problems in infancy, per-school children, adolescents, pregnant and lactating mothers and old age
2. Nutritional assessment and methods of identification of nutritional problems
 - a. Techniques of dietary surveys, limitations and interpretation of data
 - b. Anthropometric biochemical and clinical techniques, limitation and interpretation

Unit : 4

1. Nutrition Education
 - a. Meaning of nutrition education and its importance
 - b. Organization of nutrition education programmes for the community, problems encountered in organizing a programme and how to solve them
 - c. Communication methods
 - d. Communication aids
 - e. Evaluation and follow-up

Unit : 5

1. Role of various agencies
 - a. National ICMR, ICAR, CSIR, NIN etc.
 - b. International WHO, FAO, UNICEF, CARE, UNESCO etc.
 - c. Voluntary agencies
 - d. 1. Various nutritional; programmers run by the Government, ICDS, applied Nutrition Programme
2. Food fads and fallacies

REFERENCE BOOKS

Shukla, P.K.: Nutritional Problems of India
 Gopalan, C: Nutritional problems and programmes in South East Asia
 Jelliffe: Assessment of Nutritional problems
 Briggs, G.M. and Clloway, D.H.: Nutrition and Physical Fitness
 Jelliffe: Assessment of Nutritional status of the community
 Gopalan, C: Nutrition and health care problem and policies, Nutrition foundation of India Series – I
 P.A.O Manual of food nutrition policy, 1970
 Agarwal, S,N.: Population

isij IX
[kk] ,oa iks" k.k & v
lkeqnf;d iks" k.k

MM&50
3 P/W

bdkbZ & 1

- 1- leqnk;
 v- leqnk; dk izR;;
 c- lkeqnf;d iks" k.k dk izR;; ,oa fo" k; foLrkj
- 3- [kk] miyC/krk ,oa xzfrk dks izHkkfor djus okys dkjd& d` f" k mRiknu] tula[;k] vkfFkZd] {ks=h; lekftd] f" k{kk] forj.k] /kkfeZd ,oa vkS|ksfxd

bdkbZ & 2

- 1- [kk]ku laxzg.k
 v- [kk]kuksa ds laxzg.k djus dh fof/k;kWa
 c- [kkk]kuksa dks u"V gksus ds dkjd ,oa cpko
 l- [kk]kuksa dk ¶;wehxs'ku
- 2- HkksT; inkFksaZ esa feykoV
 v- Hkkstu inkFkksaZ esa feykoV dk vFkZ ,oa fu;e
 c- lk/kkj.k% feykoVh rRo ,oa budk LokLF; ij izHkko
 l- HkksT; inkFkksaZ dh feykoV gsrq tkWapus okyh ,tsfU; kWa

bdkbZ & 3

- 1- Lkeqnk; dh iks" k.k IEcU/kh leL;k;sa & dkj.k ,oa izLrkfor iks" k.k IEcU/kh leL;k;sa & 'kS'kokLFkk esa] Ldwy ls iwoZ ckyd esa] cPpksa esa] ;qok oxZ] xHkZorh] nq/k fiykus okyh efgyk ,oa o`)koLFkk esa

- 2- iks"k.k Lrj ,oa iks"k.k IEcU/kh leL;kvksa ds tkWapus gsrq fof/k;kWa&
v- vkgkjh; losZ{k.k dh rduhdsa] lhek,a ,oa vkdM+ksa dk fo'kys"k.k
- c- ,UFkzksiksesfV^ad tSo jkl;fud ,oa y{k.kksa dks igpkus dh fof/k;kWa & lhek,W ,oa fo'kys"k.k

bdkbZ & 4

- 1- iks"k.k IEcU/kh f{k{k
v- iks"k.k f{k{k dk vFkZ ,oa bldh egÙkk
- c- iks"k.k f{k{k ls IEcfU/kr leqnk; ds fy;s izksxzke cukuk ftlesa mudh leL;kvksa dk funku djus gsrq ;kstuk cukuk
- l- lapkj fof/k;kWA
- n- lapkj IEizs{k.k lk/ku
- ; - izksxzke dk ewY;kadu tkjh j[kus dh izfØ;k ij /;ku nsuk

bdkbZ & 5

- 1- fofHkUUk ,tsfUI;ksa dk ;ksxnku
- v- jk"V^{ah}; Lrj ij ICMR, ICAR, CSIR, NIN vkfn
- c- vUrZjk"V^{ah}; Lrj ij WHO, FAO, UNICEF, CARE, UNESCO vkfn
- l- ,SfPNd ,tsfUI;kW
- n- fofHkUu iks"k.k IEcU/kh dk;ZØe & ljdkj }kjk] ICDS] ,lykbZM U;wV^{ah}'ku izksxzke
- 2- Hkkstu IEcU/kh Hkze ,oa Hkz kfUr;kWa