File Ref.No.62166/GA - IV - J3/2019/Admn

UNIVERSITY OF CALICUT

Abstract

General & Academic - CBCSS UG Regulations 2019 - Scheme and Syllabus of B.Sc Family & Community Science Programme w.e.f 2020 Admission onwards -Incorporating Outcome Based Education - Implemented - Subject to ratification of Academic Council - Orders Issued.

G & A - IV - J

U.O.No. 5029/2021/Admn Dated, Calicut University.P.O, 30.04.2021

Read:-1) U.O.No. 10462/2019/Admn Dated 06.08.2019 .
2) U.O.No. 7055/2020/Admn Dated 27.07.2020.
3) Item no.6 in the minutes of the meeting of Board of Studies in HomeScience dtd 10.03.2021.
4) Remarks of the Dean, Faculty of Science, Dated 30.03.2021.
5) Orders of the Vice Chancellor in the file of even no, Dated 30.03.2021.

ORDER

1. The scheme and syllabus of B.Sc Family & Community Science Programme under CBCSS UG Regulations 2019, w.e.f 2019 admission onwards has been implemented, vide paper read (1) above and same has been modified, vide paper read (2) above.
2. The Board of Studies in Home Science has approved and forwarded the Out Come Based Education(OBE) syllabus of BSc Family & Community Science Programme prepared as per the CBCSS UG Regulations 2019, w.e.f 2020 admission, Vide paper read (3) above.
3. The Dean,Faculty of Science, vide paper read (4) above, has approved to implement the scheme and syllabus of BSc Family & Community Science Programme (CBCSS-UG-2019) incorporating Outcome Based Education (OBE) in the existing syllabus, in tune with the new CBCSS UG Regulations 2019 with effect from 2020 Admission onwards.
4. Considering the urgency, the Vice Chancellor has accorded sanction to implement scheme and syllabus of B.Sc Family & Community Science Programme incorporating Outcome Based Education (OBE) in the existing syllabus, in tune with the new CBCSS UG Regulations with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
5. Scheme and syllabus of B.Sc Family & Community Science Programme (CBCSS) incorporating Outcome Based Education (OBE) in the existing syllabus, is therefore implemented with effect from 2020 Admission onwards, subject to ratification by the Academic Council.
6. Orders are issued accordingly.
7. U.O.No. 7055/2020/Admn Dated 27.07.2020, is modified to this extend.(Modified syllabus appended)

Ajitha P.P

Joint Registrar

To

The Principals of all Affiliated Colleges
Copy to: PS to VC/ PA to Registrar/PA to CE/JCE I/JCE IV/DoA/EX and EG Sections/GA IF/CHMK Library/Information Centres/SF/DF/FC

Forwarded / By Order

Section Officer

UNIVERSITY OF CALICUT

B.Sc. FAMILY AND COMMUNITY SCIENCE

CBCSS- UG 2019

(2020 Admission Onwards)

SYLLABUS FOR B.Sc FAMILY AND COMMUNITY SCIENCE PROGRAMME (CORE COURSES) (2020 Admission Onwards)

Pattern of the model question paper, scheme of evaluation for internal examination and credit distribution have been included.

B Sc FAMILY AND COMMUNITY SCIENCE PROGRAMME COURSE STRUCTURE

Credit Distribution

Semester	Common Course		Core Course	Complementary Course		Open Course	Total
	English	Additional language		Chemistry	Botany/ Zoology/ Physics		
I	4+3	4	3	2	2	-	18
II	4+3	4	3	2	2	-	18
III	4	4	2	2	2	-	14
IV	4	4	3+4*	2+4*	2+4*	-	27
V	-	-	3+4+4+4	-	-	3	18
VI	-	-	4+4*+4+4*+ 2*+2**+2+3	-	-	-	25
Total	**22**	**16**	**55**	**12**	**12**	**3**	**120**

*Practical **Project

Method of Indirect Grading

Evaluation (both internal and external) is carried out using Mark system. The grade on the basis of the total internal and external marks will be indicated for each course, for each semester and for the entire programme.

Ten point Indirect Grading System

% of Marks	Grade	Interpretation	Grade Point Average	Range of Grade points	Class
95 and above	O	Outstanding	10	9.5- 10	First Class with distinction
85 to below 95	A+	Excellent	9	8.5 - 9.49	
75 to below 85	A	Very good	8	7.5 - 8.49	
65 to below 75	B+	Good	7	6.5 - 7.49	First Class
55 to below 65	B	Satisfactory	6	5.5 - 6.49	
45 to below 55	C	Average	5	4.5 - 5.49	Second Class
35 to below 45	P	Pass	4	3.5 - 4.49	Third Class
Below 35	F	Failure	0	0	Fail
Incomplete	I	Incomplete	0	0	Fail
Absent	Ab	Absent	0	0	Fail

After the successful completion of a semester, Semester Grade Point Average (SGPA) of a student in that semester is calculated using the formula given below. For the successful completion of a semester, a student should pass all courses. However, a student is permitted to move to the next semester irrespective of SGPA obtained.

The Semester Grade Point Average can be calculated as

$$SGPA=\frac{\text{Sum of the credit points of all courses in a semester}}{\text{Total credits in that semester}}$$

$$ie.,\ SGPA=\frac{C1*G1+C2*G2+C3*G3+\ldots\ldots}{n}$$

where G1, G2, … are grade points of different courses; C1, C2, ... are credits of different courses of the same semester and n is the total credits in that semester.

% of marks of a semester = (SGPA/10) x 100
The SGPA is corrected to three decimal points and the percentage of marks should be

approximated to two decimal points

The Cumulative Grade Point Average (CGPA) of the student is calculated at the end of a programme. The CGPA of a student determines the overall academic level of the student in a programme and is the criterion for ranking the students. CGPA can be calculated by the following formula

The Cumulative Grade Point Average (CGPA) can be calculated as

$$CGPA = \frac{\text{Total credit points obtained in six semesters}}{\text{Total credits acquired(120)}}$$

Total percentage of marks= (CGPA/10)*100

$$CGPA \text{ of core courses} = \frac{\text{Total credit points obtained for Core Course}}{\text{Total credits acquired for Core Courses}}$$

PROGRAMME SPECIFIC OUTCOMES

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

B Sc FAMILY AND COMMUNITY SCIENCE

CORE COURSE STRUCTURE UNDER CBCSS ADMISSION 2020 ONWARDS

Semester	Code No.	Course Title	Hrs/ Week	Credit	Marks		
					EE (80%)	IE (20%)	Total
I	FCS1B01	Fundamentals of Nutrition	4	3	60	15	75
II	FCS2B02	Human Development	4	3	60	15	75
III	FCS3B03	Research Methodology and bio informatics	3	2	60	15	75
	FCS3B03(P)	Practical I- Research Methodology and bio informatics	2	-	-	-	-
IV	FCS4B04	Food Science	3	3	60	15	75
	FCS4B04(P)	Practical II -Food Science	2	4*	80	20	100
V	FCS5B05	Human Physiology and Microbiology	3	3	60	15	75
	FCS5B06	Diet in Health	3	4	80	20	100
		Practical III- Diet in Health	4	**			
	FCS5B07	Family Resource Management	2	4	80	20	100
		Practical IV- Family Resource Management	2	**			
	FCS5B08	Textile Science	2	4	80	20	100
		Practical V – Textile Science	4	**			
		Project	2	**			
VI	FCS6B09	Dietetics	5	4	80	20	100
	FCS6B06(P)	Practical III- Diet in Health & Practical VI- Dietetics	4	4**	80	20	100
	FCS6B07(P)	Practical IV- Family Resource Management		2**	60	15	75
	FCS6B10	Fabric care and Apparel Designing	5	4	80	20	100
	FCS6B10(P)	Practical V- Textile Science Practical VII- Fabric Care and Apparel Designing	4	4**	80	20	100
	FCS6BPR	Project		2**	60	15	75
	FCS6B11	Concepts in Family Relation	4	2	60	15	75

	FCS6B12 (E1) FCS6B12 (E2) FCS6B12 (E3)	**Elective Courses***** Entrepreneurship Management Quantity Food Preparation Techniques Extension Education and Communication	3	3	60	15	75

OPEN COURSE- V SEMESTER						
				Marks		
				EE	**IE**	**Total**
FCS5D01: FCS5D02: FCS5D03:	Food Science and Basic Cookery Interior Decoration Textiles and Apparel Designing	**3**	**3**	**60**	**15**	**75**
GRAND TOTAL			**58**			**1550**

AUDIT COURSES******						
				Marks		
				EE	**IE**	**Total**
I	Environment Science		**4**	**80**	**20**	**100**
II	Disaster management		**4**	**80**	**20**	**100**
III	Intellectual Property Rights		**4**	**80**	**20**	**100**
IV	Gerontology		**4**	**80**	**20**	**100**

*Exam will be held at the end of 4th semester

** Exam will be held at the end of 6th semester

*** An institution can choose any one among the three courses

********Credit and marks not counted in total SGPA and CGPA

COMPLEMENTARY COURSES – FOOD AND NUTRITION

SEM	COURSE	COURSE TITLE	INSTRUCTION/ WEEK		CREDIT	EXAM HRS	SCHEME OF EXAMINATION		TOTAL MARKS
			T	P			EE MARKS	IE MARK	
I	FCS1C01	Food Science	2		2	2	60	15	75
	FCS1C01(P)	Practical I- Food Science		2	-	-	-	-	-
II	FCS2C02	Fundamentals of Nutrition	2		2	2	60	15	75
	FCS2C02(P)	Practical II- Fundamentals of Nutrition		2	-	-	-	-	-
III	FCS3C03	Nutrition Through Life Cycle	2		2	2	60	15	75
	FCS3C03(P)	Practical III - Nutrition Through Life Cycle		2	-	-	-	-	-
IV	FCS4C04	Dietetics	2		2	2	60	15	75
	FCS4C04(P)	Practical IV- Dietetics		2	4	3	80	20	100
Grand Total					12				400

EVALUATION

A) THEORY PAPERS

QUESTION PAPER MARK PATTERN FOR CORE COURSES

1. For a paper with 4/5 credits total marks is 80+20=100

External : 80marks , Internal : 20 mark

2. For a paper with 2/3 credits total marks is 60+15=75.

External : 60marks , Internal : 15 mark

1. Project work 60+15 = 75

Distribution of marks and type questions.

Internal marks distribution for papers with 4/5 credits

Sl.No	Criteria	Marks
1	Attendance	4
2	Assignments	4
3	Seminar	4
4	Test paper 1	8
Total		**20**

Internal marks distribution for papers with 2/3 credits

Sl.No	Criteria	Marks
1	Attendance	3
2	Assignments	3
3	Seminar	3
4	Test paper 1	6
Total		**15**

External marks distribution for papers with 4/5 credits

Category	Total Questions	To be answered	Marks for each question	Cieling
Section A – Short answer	15	15	2	25
Section B- Paragraph	8	8	5	35
Section C- Essay	4	2	10	20
Total				**80**

External marks distribution for papers with 2/3 credits

Category	Total Questions	To be answered	Marks for each question	Ceiling
Section A – Short answer	12	12	2	20
Section B- Paragraph	7	7	5	30
Section C- Essay	2	1	10	10
Total				**60**

B) PRACTICAL

Practical internal marks distribution [FCS4B04(P), FCS6B06(P) and FCS6B10(P)]

Sl.No	Criteria	Marks
1	Attendance	4
2	Performance	4
3	Record	12
Total		20

Practical internal mark distribution FCS6B07(P)

Sl.No	Criteria	Marks
1	Attendance	3
2	Performance	3
3	Record	9
Total		15

PRACTICAL -EXTERNAL MARKS DISTRIBUTION

FCS4B04(P) -FOOD SCIENCE PRACTICAL II

Sl . No	Criteria	Mark
I	**QUALITATIVE TESTS**	
	TEST FOR CARBOHYDRATE	
I	Molish's test	4
Ii	Benedict's test	4
Iii	Fehling's test	4
Iv	Barfoed's test	4
V	Seliwanoff's test	4
Vi	Phenyl hydrazine test	8
Vii	Result	2
	TOTAL	**30**
OR		
	TEST FOR PROTEINS	
I	Coagulation	5
Ii	Molish's test	5
Iii	Biuret test	5
Iv	Millions test	5
V	Xanthoprotein test	5
Viii	Result	5

	TOTAL	**30**
II	**QUANTITATIVE TESTS**	
I	Principle	5
Ii	Procedure	8
Iii	Titre value	7
Iv	Steps	7
V	Result	3
	TOTAL	**30**
III	**Record**	**20**
TOTAL		**80**

FCS6B07(P) PRACTICAL IV FAMILY RESOURCE MANAGEMENT

Sl . No	**Criteria**	**Mark**
1	Presentation	10
2	Viva	10
3	Handicraft	20
4	Record	20
TOTAL		**60**

FCS6B06(P) PRACTICAL III DIET IN HEALTH

FCS6B06(P) PRACTICAL VI DIETETICS

Sl . No	**Criteria**	**Mark**
1	Preparation and taste	16
2	Serving and Presentation	4
3	Time and Cleanliness	4
4	Principle	4
5	Menu Plan	16
6	Calculation	8
7	RDA (8 nutrients with units)	8
8	Record	20
TOTAL		**80**

FCS6B10 (P) PRACTICAL V TEXTILE SCIENCE

FCS6B10 (P) PRACTICAL VII FABRIC CARE AND APPAREL DESIGNING

Sl . No	Criteria	Mark
1	Drafting	10
2	Construction	10
3	Grain	4
4	Identification	12
5	Neatness and Completion	2
6	Embroidery	2
7	Garments	20
8	Record	20
TOTAL		**80**

PROJECT

Project evaluation (Internal Marks)

Sl.No	Criteria	Marks
1	Originality	3
2	Methodology	3
3	Scheme &organization of report	4.5
4	Viva voce	4.5
Total		**15**

Project evaluation (External Marks)

Sl.No	Criteria	Marks
1	Relevance of the topic & statement of objectives	12
2	Reference, presentation, quality of analysis /statistical tools used	12
3	Findings and recommendations	18
4	Viva Voce	18
	TOTAL	**60**

COMPLEMENTARY COURSES – FOOD AND NUTRITION

A) Theory Evaluation Scheme: Every Semester

75 Marks for each paper

QUESTION PAPER PATTERN FOR COMPLEMENTARY

For a paper total marks is 60+ 15 = 75

External : 60 marks, Internal: 15 marks

1) Internal Evaluation

20% of the total marks of each course are for internal evaluation. The colleges shall send only the marks obtained for internal examination to the university

Table 1: Components of Evaluation

SI. No	Criteria	Marks
1	Attendance	4
2	Assignments	1.5
3	Seminar	1.5
4	Internal Examination 2	4+4
Total Marks		15

Table 2: Percentage of Attendance and Eligible Marks

% of Attendance	Marks
Above 90 %	4
85 -89 %	3.2
80 – 84 %	2.4
76 – 79 %	1.6
75 %	0.8

2) External Evaluation

External evaluation carries 80% Marks. University examination will be conducted at the end of each semester

Table 1: Pattern of Question Papers

Category	**Total Questions**	**To be answered**	**Marks for each question**	**Ceiling**
Section A – Short answer	12	12	2	20
Section B- Paragraph	7	7	5	30
Section C- Essay	2	1	10	10
Total				**60**

PRACTICAL - FCS4C04 (P)- DIETETICS

Table 1: internal marks Distribution

Sl. No.	Criteria	Marks
1	Attendance	3
2	Perfomance	3
3	Record	6
4	Internal Examination (2)	4+4
Total Marks		**20**

Table 2: External Mark Distribution

Sl. No	Criteria	Marks
1	Presentation	10
2	Taste & Serving	5
3	Time & Cleanliness	5
4	Principle	10
5	Menu Plan	10
6	Calculation	10
7	RDA (8 nutrients with units)	10
8	Record	20
Total Marks		**80**

CORE COURSES

SEMESTER I

FCS1B01 FUNDAMENTALS OF NUTRITION

Credits: 3 **Theory: 4hrs / week**

Objectives:

To enable the students to gain information about the sources, functions and effects of deficiency of various nutrients.

Course Outcome

CO1 Comprehend relationship between food, nutrition and health.
CO2 Understand the functions of food, various food groups, balanced diet and principles of meal planning.
CO3 Understand functions of various nutrients and their sources & gaining knowledge about clinical manifestations of excess/ deficiency of nutrients

Unit I Introduction to human nutrition (5hrs)

Definition- Nutrition ,health, Malnutrition, Nutritional Status..Nutritional classification of foods

Unit IIRecommended Dietary Allowances (5hrs)

ICMR Recommended Allowances for Indians (RDA) - Reference man & reference woman.

Unit III Study of Macronutrients (22hrs)

Carbohydrates, proteins and fat - Classification, functions, digestion, absorption, metabolism, sources, requirements and deficiency.

Unit IV Study of Vitamins (12hrs)

Functions, sources, deficiency and requirements of :-Fat soluble vitamins (Vitamin A, D, E and K) and water soluble vitamins (Vitamin B- Thiamine, Riboflavin, Niacin, folic acid and vitamin B12 and vitamin C)

Unit V Study of minerals(10hrs)

Functions, sources, deficiency and requirements of: - Calcium, Iron, Iodine, Fluorine.

Unit VI Study of energy (12hrs)

Definition, Determination of Energy value of food by Bomb Calorimeter, Total energy requirements – BMR – factors effecting BMR, physical activity, physiological fuel value

Unit VII Water. (6hrs)

Functions, water balance and requirements

References

1. Sri. Lakshmi B., Nutrition Science, New Age International (p) Ltd, New Delhi - 2002.

2. Swaminathan M., Handbook of Food and Nutrition, the Bangalore Printing and Publishing co., Ltd., Banglore.2003.

3. Bamji M.S. et.al. Textbook of Human Nutrition, Oxford, IBH Publishers, 1999.

SEMESTER II

FCS2B02 HUMAN DEVELOPMENT

Credit: 3 **Hours: 4hrs / Week**

Objectives

1. To provide scientific knowledge about human development and behavior.
2. To know the needs of children at different stages of development.
3. To give an awareness of the needs and problems of exceptional children.

Course Outcome

CO1 Describe how individuals develop and change from womb to tomb
CO2 Gain knowledge to locate relevant examples of development in the cultural context, focusing on situations of childhood development in Indian culture
CO3 Competent in using methods to study development in children, and explore family and community context of Indian children
CO4 Gain knowledge to locate and use relevant cultural examples of development during adolescence and different phases of adulthood.
CO5 Competent in using methods to study development and socio-cultural context of Indian adolescents and adults
CO6 Understand classical and contemporary theoretical perspectives in Human Development.
C07 Apply theoretical understanding of core concepts in Human development to the everyday context.

Unit I Principles of growth development (2 hrs)

Stages of development, Importance of heredity and environment in the development of the child.

Unit II Prenatal period(6 hrs)

Conception, stages of development, complications of pregnancy, factors influencing prenatal development, antenatal care.

Unit III Neonate(4 hrs)

Characteristics, abilities and adjustments.

UnitIV Babyhood, Early childhood, late childhood(12 hrs)

Physical, motor, emotional, social, moral, cognitive and language development. Discipline methods and effects. Habit formation.

Unit V Adolescence(12 hrs)

Characteristics, physical, social, emotional, cognitive and moral development, problems of adolescence.Sex education- need and significance.

Unit VI Adulthood(10 hrs)

Characteristics and problems.

Unit VII Pre- school education(10 hrs)

Objectives and types of pre schools- nursery, balwadi, laboratory nursery school, kindergarten and Montessori.

Unit VIII Play(4 hrs)

Theories, values and types.

Unit IX Juvenile delinquency(2 hrs)

Causes and rehabilitation

Unit X Exceptional children(10hrs)

Definition, causes, classification, identification, need for special education – gifted child, mentally handicapped, physical and sensoryimpairements.

Related experience

1. Observation of the following developments of a child in preschool- physical, social, emotional and intellectual development.
2. Visit to any of the two places – day care centre/ special school/ balwadi / play school.

References

1. Hurlock E.B., Child Development, McGraw Hill, Kogakurtia Ltd.
2. Hurlock E.B., Child Growth and Development, McGraw Hill
3. Hurlock E.B., Developmental Psychology, McGraw Hill
4. Devadas R.P. and Jaya N. (1984) A Textbook on Child Development, Mac Millan, India ltd.
5. Suriakanthi A. (1989) Child Development, Kavitha Publication, Gandhigram.
6. Stewart A.C. and Friedmans (1987) Child development: Infancy through Adolescence, Willy International.
7. Gaij G.T. (1989) Human Development, Prentice Hall, New Jersey.

SEMESTER III

FCS3B03 - RESEARCH METHODOLOGY AND BIOINFORMATICS

Credits: 2 **Hour: 3 hrs/week**

PART A- RESEARCH METHODOLOGY

Objectives

1. To understand the methodology of research its principles and techniques
2. Developing and understanding research from a report writing

Course Outcome

CO1 Sharpen competence in research approaches.
CO2 Acquire research acumen for any basic and advanced research.
CO3 Comprehend the purpose and procedure of research study
CO4 Introduce the commonly used computational, statistical and analytical approaches to post genomic analysis and make meaningful predictions
CO5 Make competent users of the basic experimental skills of bioinformatics

Unit I Fundamentals of Research: (8hrs)

Definition of research, objectives, characteristics and types – action research, applied research, expost facto research, historical research, fundamental research.

Unit II Research design / proposal (10hrs)

Meaning and purpose of a research design or proposal, research problem definition, Variables - types of variables, independent and dependent variables

Unit III Research Methods

Survey- nutritional assessment survey, various assessment strategies used- age, weight, height, dietary assessment, tools used in nutritional assessment survey- descriptive, observational, analytical, intervention, triple A programme, case study, experimentation

Unit IV Research Tools (2hrs)

Questionnaire, observation, interview schedule and other tools used.

Unit V Sampling (5hrs)

Sampling methods, merits and demerits of sampling

Unit VI Research Report Writing (5hrs)

Principle of research report, contents in a report

References

1. Kothari.C.R., Research Methodology. Wiley Eastern Limited, New Delhi,2000

2. Best.W.J and Kahn V.J., Research in Education, 7th edition, Prentice Hall Private Ltd. New Delhi

3. Koul.L., Methodology of Educational Research,2ndedition, Vikas publishing house ltd., New Delhi

PART B BIOINFORMATICS

Objective

To provide the basic knowledge in the discipline and application of bioinformatics

Unit I – Introduction to bioinformatics(2hrs)

Definition, Branches, Scope- , name of software in bioinformatics. Bioinformatics centers nIndia Application of bioinformatics in various fileds

Unit II– Introduction to data bases(5hrs)

Important data base sources, Structure, Functions, classification

Unit III – Tools of bioinformatics(5hrs)

Sequence analysis, Tools, Salient features of BLAST, FASTA, AND PSI- BLAST

UNIT IV - Applications of Bioinformatics ,(2hours)applications to relevant fields of Home Science

References

1. Attwood, T K & D J Parry Smith. 1999> Introduction to Bioinformatics. Addison Wesley Longman
2. John Wiley & Sons. Inc., publications, NewYork
3. Khan I A & A Khayum. 2002, Fundamentals of Bioinformatics, Ukkkaz Publications, Hyderabad
4. Less A M. 2002. Introduction to Bioinformatics. Oxford University press. Oxford

SEMESTER III

FCS3B03 (P) PRACTICAL I -RESEARCH METHODOLOGY AND BIOINFORMATICS

Credit: 0 **Hour: 2 hrs /week**

1. Prepare a research tool – questionnaire, interview schedule

2. Conduct a community survey on relevant topics of Home Science.

3. Prepare a research proposal

4. Observational study on developmental pattern of preschool children

5. Conduct a nutritional assessment survey among college students

6. Conduct a community awareness programme

SEMESTER IV

FCS4B04 FOOD SCIENCE

Credits: 3 **Theory: 3hrs / week**

Objectives

To enable students

1. Understand the nutritive composition of different food groups.
2. Impart knowledge about the different methods of cooking and food preservation.

Course Outcome

CO1 Understand the functions of food.
CO2 Classify foods into various food groups.
CO3 List the advantages and disadvantages of various methods of preparing food.
CO4 Understand the concept of nutrient losses during cooking and enhancement of nutritional quality of foods.
CO5 Understand the basic concepts of food science and its applications in processing of food.
CO6 Understand basic principles involved in preservation and spoilage.
CO7 Impart knowledge about the national and international food laws.
CO8 Perform basic sensory and objective evaluation of food.

Unit I Introduction to food science (4 hrs)

1. Definition of food and functions of food
2. Food pyramid, basic five food groups and uses
3. Cooking-objectives and different methods of cooking.

Unit II Study of foods (38 hours)

1. **Cereals** Structure (wheat) and nutrient composition cereal products, effect of heat on starch.
2. **Pulses** Nutritive composition and germination and anti-nutritional factors.

3. **Vegetables** Classification and nutritive composition and selection, pigments

4. **Fruits** Composition and nutritive composition, browning reaction . **Beverages** Classification And importance

5. **Milk and milk products** Nutrient composition of milk and milk products – curd, butter, ghee, skimmed milk, effect of heat

6**. Eggs**Structure, nutritive composition, characteristics of fresh eggs and deterioration of eggs.

7. **Meat** Nutritional significance and post-mortem changes.

8. **Fish**Nutritional significance and selection.

9**. Nuts and Oil seeds.**Nutritional composition,Fats and Oils, smoking temperature and rancidity.

10**.** 11. **Sugar and its products** Caramalisation, hydrolysis, crystallization and stages of sugar cookery

Unit III Food preservation(6hrs)

Principles and methods

Unit IV Food adulteration(4 hrs)

Common adulterants and simple Test for detection of Adulterants

References

1. Norman, N. Potter and Hotchkiss, J.H, Food Science, CBSE publishers and Distributers, New Delhi, 1996.

2. Mudambi, S.R. and Rao , S.M. Food Science, New Age International (P) ltd. Banglore, 1989.

3. Begum, M.P., A Text Book of Food, Nutrition and Dietetics, sterling Publishers Pvt. Ltd., New Delhi, 2001.

4. Srilakshmi, B., Food Science, New Age International Pvt. Ltd., New Delhi.

5. Mudambi, S.R. and Rajagopal M.V., Fundamentals of Food & Nutrition, New Age International (P) Ltd., New Delhi, 1990.

6. Swaminathan, M. Handbook of Food and Nutrition, The Banglore Printing and Publishing Co., Ltd., Banglore, 20

SEMESTER IV

FCS4B04 (P) PRACTICAL II FOOD SCIENCE

Credits: 4 **Practical: 2hrs / week**

Course OutcomE

CO1 Develop understanding about the methods of preparing food.
CO2 Explain the chemistry underlying the properties of various food components.
CO3 Gain coherent and systematic knowledge of basic food chemistry.
CO4 Capably and confidently demonstrate laboratory skills and competencies in nutritional biochemistry
CO5 Demonstrate current knowledge of nutritional biochemistry that is required for advanced studies in human nutrition
CO6 Nutritional biochemistry introduces the structural and functional characteristics of macronutrients (carbohydrates, lipids, proteins) and micronutrients (vitamins) in food consumed by humans**.**

Unit I Food preparation

i. Record the weight of 1 cup/ 1tbsp/ 1tsp of different types of food stuffs.

ii. Record the ratio of raw to cooked volume of rice, rava and pulses.

iii. Simple preparations using cereals, pulses, vegetables, fruits, milk, egg, meat and fishusingdifferentcooking methods.

iv. Weaning recipes

v. Food preservation – Jam, squash, pickles

***Unit II FoodAnalysis*i.**

Qualitative tests for

a. Proteins

b. Carbohydrates – Monosaccharide (glucose, fructose) and disaccharides

ii .Quantitative tests

a. Vitamin C in lime juice (dye method)

b. Estimation of reducing sugar by Benedict's method

c. Calcium in food – demonstration

SEMESTER V

FCS5B05 HUMAN PHYSIOLOGY AND MICROBIOLOGY

Credits: 3 **Theory: 3 hrs / week**

Part-I HUMAN PHYSIOLOGY

Objective

To study about the various systems and functions of the human body.

Course Outcome

CO1 Understand the physiology of all the systems of the human body.
CO2 Develop a holistic understanding of mental, reproductive and social health.
CO3 Develop the awareness of major communicable and non-communicable diseases
CO4 Understand role of micro-organisms in relation to processing and spoilage.
CO5 Understand the basic microbial structure and function and study the comparative characteristics of prokaryotes and eukaryotes
CO6 Understand the structural similarities and differences among various physiological groups of bacteria/archaea.

Unit I Blood (12 hrs.)

Functions, composition, blood cells, hemoglobin, blood coagulation, blood groups, Rh factor, blood formation and destruction.

Unit II Circulatory System (13 hrs.)

Heart- structure, properties of heart muscle cardiac cycle, pulse, blood pressure, factors maintaining blood pressure, ECG.

Unit III Digestive System (4 hrs.)

Structure and functions of Digestive Tract, Functions of accessory organs such as

salivary glands, tongue, liver and pancreas.

Unit IV Urinary System (6 hrs.)

Structure and functions of kidney, structure of Nephron, urine formation and micturition

Unit V Reproductive System (10 hrs.)

Male and Female reproductive organs in brief-ovarian and uterine cycle's and their regulation, fertilization, implantation pregnancy, parturition.

Unit VI Endocrine System (5 hrs.)

Structure and functions of adrenal glands, thyroid gland, parathyroid gland, pituitary gland and sex glandsovaries, testis and placenta.

References

1. Chatterjee C.C., Human Human Physiology
2. SaradaSubramaniam and Madhavankutty K.A, A Concise Text Book of Human Physiology Orient Longman pub.
New Delhi.
3. VidyaRatan ,Hndbook of Human Ohysiology, Jaype Brothers ,Medical Publishers New Delhi, 110002
4. Sherman Veneles and Luriano, Human Human Physiology.
5. Best,Herbert Charles and Taylor ,Burke Norman –The Living Body
6. Text Book of Human Pysiology ,S.Chand and Co.Pvt.Ltd. Ram Nagar, New Delhi
7. Fred.E.DArmour, Basic Human Physiology, Oxford and IBH Publishing Co, New Delhi

PART –II MICROBIOLOGY

Objective:

Elementary knowledge about microorganisms and their role in health and diseases.

Unit I Introduction (6 hrs.)

Importance of the study of microbiology and classification of microorganisms.

Bacteria and Bacterial Diseases **-** Morphology, factors affecting growth, reproduction, spore formation. Pneumonia, tuberculosis meningitis, gonorrhea, syphilis, typhoid, cholera and tetanus

Unit II Yeasts (2 hrs.)

Morphology and economic importance

Unit III Virus and Viral Diseases(4 hrs.)

Morphology – Bacteriophages. Chicken pox, mumps, poliomyelitis, rabies, infective hepatitis, Chikunguinea, Dengue and AIDS.

Unit IV Control and Destruction Of Bacteria (3 hrs.)

Sterilization and disinfection

Unit V Infection (2 hrs.)

Sources and methods of transmission.

Unit VI Immunity (2 hrs.)

Classification –innate and acquired, active and passive immunity, immunization schedule for Children

Unit VII Food Microbiology (3 hrs.)

Food spoilage and food poisoning- Salmonella food poisoning, Staphylococcus food poisoning, Botulism, Clostridium Welchi food poisoning.Food infection - definition with examples.

References:

1. Anna .K.Joshua, Microbiology, Popular Book Depot, Madras 15.
2. Barnes and Noble, Bacteriology –Principles and practices.
3. Aguide to Microbiology and Bacteriology for medical student's .Prakashan Kendra, Lucknow 22/6007

4. Sullia and Shantharam, General Microbiology .Oxford and IBH Publishing.Co.Pvt.Ltd. New Delhi.
5. Kumar H.D. and Kumar S., Modern concepts of Microbiology, Vikas Publishing House Pvt.Ltd.
6. Satish Gupta. M.D,The short Text Book of Medical Microbiology. Jaypee Brothers pub. New Delhi.
7. Sharma P.D., Microbiology, Rastogi pub. Meerut 250002

SEMESTER V

FCS5B06 DIET IN HEALTH

Credit: 4 **Theory: 3 hours/week**

Objectives

To enable the students to

1. Understand the role of nutrition in different conditions.

2. Develop competency in planning diets to meet the nutritional requirements of different socio-economic levels.

Course Outcome

CO1 Understand the relationship between food, nutrition and health.
CO2 Comprehend the principles of planning nutritionally adequate meals.
CO3 Exercise food choices consonant with good health based on sound knowledge of principles of nutrition.
CO4 Acquire knowledge about the nutritional needs and concerns of an individual through the life cycle.
CO5 Understand nutrition considerations during special conditions for children and adults.

Unit 1 Meal Planning(4hrs)

Link between health and Nutrition, different food groups, menu planning, balanced diets

Unit II Nutrition In Pregnancy(6hrs)

Nutritional status and general health, physiologic changes, nutritional requirements, dietary problems and complications

Unit III Nutrition In Lactation(4hrs)

Role of hormones in Milk production, nutritional requirements, dietary guidelines and Lactation failure.

Unit IV Nutrition In Infancy(6hrs)

Growth and development during infancy, nutritional requirements, breast feeding, artificial feeding, weaning foods suitable for infants and weaning problems

Unit V Nutrition In Preschool Age(5hrs)

Nutritional requirements, factors responsible for rejecting food, nutritional problems

Unit VI Nutrition In School Age (3hrs)

Nutritional requirements and dietary guidelines, nutritional problems

Unit VII Nutrition during Adolescence(4hrs)

Nutritional requirements and dietary guidelines,, nutritional problems

Unit VIII Nutrition for Adults(4hrs)

Reference man, Reference women, ICMR classification of activities based on occupation and Nutritional requirements

Unit IX Nutrition for Aged(6hrs)

Nutritional requirements, changes in organ function with ageing which influence nutrient requirement, nutritional problems and dietary guidelines.

Unit X Nutrition in Special Events(6hrs)

Sports Nutrition

Unit XI Assessment of Nutritional Status

Objectives and methods in brief.

Unit XII Nutrition programmes and Agencies:(6hrs)

Important National Nutrition programmes- ICDS, Mid Day Meal Programme, Vitamin A prophylaxis Programme, Anaemia Prophylaxis Programme, goitre control programme, important national and international agencies working in the field of nutrition WHO, FAO, NIN, CFTRI.

References

1. Antia.F.P, Clinical Dietetics and Nutrition, Oxford University Press, New Delhi, 1997, 4th edition.

2. Srilakshmi.B, Dietetics, New Age International Pvt. Ltd. Publishers, New Delhi, 1997.

3. Swaminathan.M, Principles of Nutrition and Dietetics

4. Subhangini Joshi, Nutrition and Dietetics

5. Gopalan.C, Ramasastri.B.V, Nutritive value of Indian Foods, Vol.I, NIN, ICMR, 1994.

6. Mahan.J.K, Arlin.M.T, Krause's Food Nutrition and Diet Therapy 8th edition, W.B Saunders Company, 2001.

SEMESTER V

PRACTICAL III-DIET IN HEALTH

Course Outcome

CO1 Understand the principles of planning nutritionally adequate meals.
CO2 Understand the concept of nutrient requirements and methods involved in assessment of nutrient needs.
CO3 Exercise food choices consonant with good health based on sound knowledge of principles of nutrition.
CO4 Acquire knowledge about the nutritional needs and concerns of an individual through the life cycle

Planning diets to meet the requirement at different economic level- low, middle and high income for the following conditions

Pregnancy

Lactation

Infancy

Preschool age

School Age

Adolescents

Adulthood

Old age

SEMESTER V

FCS5B07 FAMILY RESOURCE MANAGEMENT

Credit: 4 **Hours: 2hrs / Week**

Objectives

1. To help students learn principles of resource management
2. To provide students knowledge on household economics
3. To make students conscious of aesthetics
4. To encourage students to apply theoretical knowledge in practical life

Course Outcome

CO1 Comprehend the fundamentals of resource management in changing scenario.
CO2 Inculcate skills in the identification, creation, selection and judicious use of available resources with emphasis on maximization and conservation.
CO3 Understand the processes of management in a scientific manner in the use of resources
CO4 Develop aptitude in identifying product/ space design problems at home and at work. Understand the human element and user perspective in the evolution of product/space design.
CO5 Identify and describe the functions of Human Resource Development.
CO6 Sensitized towards challenges of human resource managers
CO7 Understand the fundamentals of house planning and space articulation.
CO8 Exhibit efficient resource use potentials at home and work place.

Unit I Principles of Resource Management (8hrs)

Meaning & definition of home management, steps involved in management, decision making,values, goals & standards, qualities of an efficient home maker

Resources

Definition & classification, characteristics -resources, and guides to increase satisfaction from resources

Unit II Energy management (5 hrs)

Fatigue-types, causes and methods to elevate fatigue

Work simplification-process chart, operation chart, flow process chart, Mundel's classes ofchange*Ergonomics*-meaning, importance, objectives, factors involved-man and his work, tools andequipment, indoor climate, furniture, ventilation, light, noise, storage

UnitIII Time management (7 hrs)

Principles & techniques, tools in making time plan, Gantt chart

Money management

Family income-sources of income, types of income, supplementing the family income

Family expenditure-family budget, steps in making family budget, Engels Law of consumption, savings, saving institutions-advantages

Unit IVHousing(4hrs)

Functions of house, selection of site, principles of planning of house, kitchen layout

Unit V Interior decoration (12hrs)

Design- definition and types, Elements of design, principles of design

Colour theory- dimensions, Prang's colour system and colour schemes

Flower arrangement-types and principles

Furniture selection, arrangement, and principle of arrangement

Window treatments- types and curtain styles

Accessories- classification- functional and decorative

Home lighting- types

References

1. Nickel, Pand Dorsey, J.M. Management in family living, Wiley Eastern Private Ltd, New Delhi, 1976
2. Gross, I.M &Grandall, D.W Management for Modern Families, 1973
3. Faulkner R & Faulkner S, Inside todays home, Holt Rinchart& Winston, Newyork
4. Rutt.A.H, Home furnishing, Wiley Eastern Private Ltd, New Delhi
5. Varghese.M.A, Ogale, N.N.Sreenivasan,K home Management, New Age International
6. Agan.T, The house-its plan & use, J.P.Lippincottcompany, Newyork, 1970
7. Ruth.F.Shewood, homes today and tomorrow, 1972, Chas.A.Benettcompany Illinois
8. Good house keeping guide to successful homemaking compiled by the editors of housekeeping 1956,Harper and Brother Publisher, Newyork.
9.Agarwal, K.C. Enviormental Biology, Nidipublication.Ltd, Bikaner,2001.
10 Miller T.G., Enviornment science, Wardsworthpublicationco.TB.

SEMESTER V

FCS6B07 (P) PRACTICL IV -FAMILY RESOURCE MANAGEMENT

Credit: 2 **Hours: 2hrs/week**

Course outcome

CO1	Develop sound understanding in the use of resources
CO2	Develop organisational skills
CO3	Ability in problem solving
CO4	Systematic and meticulous work habits

Residence stay for one week as practical's with report incorporating

Types of design-decorative, traditional and modern

Elements of design-applications

Principles of design-illustrations

Colour wheel

Colour schemes

Curtain styles

Accessories

Flower arrangement

Prepare 2 handicraft items

SEMESTER V

FCS5B08 TEXTILE SCIENCE

Credit: 4 **Theory: 2hrs / Week**

Objectives

1. To give each student a desire to recognize and appreciate textile fibres.
2. To give the students sound scientific theory concerning fibers', including their production, properties and uses

Course Outcome

CO1 Describe textile fibres in terms of their production and properties
CO2 Understand various production techniques and properties of yarns
CO3 Understand various dyeing, printing and finishing techniques
CO4 Develop basic knowledge of fashion and design
CO5 Select suitable apparel in relation to fabric and design components for individual
CO6 Identify various types of dyes and auxiliaries for dyeing and printing of fabrics
CO7 Describe methods and styles of printing fabrics

Unit I Fibre Theory:(3hrs)

Definition, primary and secondary properties of a fibre, classification of fibres, fibre identification.

Unit II Textile Fibres-(5hrs)

Major fibres- cotton, linen, silk, wool, nylon, polyester, rayon, acetate (production, properties and uses)

Unit III Yarn Construction(5hrs)

Definition, spinning- cotton system, open end, wet spinning, dry spinning, melt spinning, bicomponent spinning, bi constituent spinning, friction spinning, twistless spinning, yarn-twist,number and types, blends.

Unit IV Fabric Construction(5hrs)

Looms- parts and operations- types of looms- handlooms, power loom and shuttle less looms, Preparation of yarns before weaving

Weaves- *Basic*- plain and derivatives, twill, bird's eye weave, herringbone twill, satin and sateen, *Novelty*- pile, leno, dobby, jacquard, double cloth, crepe, extra yarn weaves- spot (cut and continuous), lappet and swivel.

Fabric count and analysis, Blend and Mixtures

***Unit V Nonwovens*-(5hrs)**

Knitting, felting, bonding, multicomponent, laces and nets, braiding.

Unit VI Finishes (5hrs)

Definition, classification, importance, types of finishes

mechanical- calendaring(friction, glazing, embossing, moireing and schreinerising), tentering, shearing, napping ,singeing,

Chemical-bleaching, mercerizing, sanforising, sizing, weighting, , crepe and crinkled effect, crease resistance,

special/functional- water repellency, flame proofing, mildew proofing and moth proofing .

Unit VII Dyeing and Printing(6hrs)

Dyes- definition and classification- direct, acid, basic, azoic, vat, sulphur, metal complex, mordant, reactive and disperse dyes and natural dyes. Methods of dyeing- fibre, stock, yarn, piece and garment.

Printing- styles- direct (block, roller, screen-hand screen, flat bed screen printing and rotary screen printing, stencil, duplex) discharge and resist (tie and dye, batik)

Unit VIII Environment and Textile Industry-(2hrs)

Environmental impacts related to cultivation, processing and uses.

Eco friendly fibres- jute, hemp, bamboo, organic cotton and recent trends.

Eco friendly practices and use of eco labels.

References

1. Marjory L. Joseph, Introductory Textile Science, Holt Rinehart and Winston, New York.

2. SusheelaDantyagi, Fundamentals of Textiles and their care, Orient Longmans, Madras

3. Hess, Textile fibres and their Uses, Oxford IBH Publishing Company, New Delhi.

4. Porter Corbman, Fibre to Fabric, McGraw Hill Book Company, New York.

5. www. fiber2fashion.com

SEMESTER V

PRATICAL V TEXTILE SCIENCE

Hours: 4hrs / Week

Course Outcome

CO1 Identify fabrics and relate it to specific products keeping in mind fabric properties and characteristics
CO2 Acquire skill necessary for selection and evaluation of clothing
CO3 Understand the use of various materials and finishes to create aesthetically designed interiors.

1. Collection of all fibres studied.

2. Identification of fibres by burning, microscopic and solubility tests.

3. Collection of all weaves studied.

4. Prepare a sample of block printing

SEMESTER V

FCS6BPR-PROJECT

Credit: 2 **Theory: 2hours / week**

Objectives

- To make the students research oriented
- To establish new research to contribute to program planning and evaluation

Course outcomes

CO1	Develop scientific temper
CO2	Ability to think for societal development
CO3	Improve reasoning and analytical skills
CO4	Improve writing skills and produce scientific report of the research work

Content

- Development of research Programme
- Collection of Review
- Conduct Pilot Study in the field
- Conduct of work in the lab/ hospital/ community
- Analysis of Data
- Writing for the thesis and submission

SEMESTER VI

FCS6B09 DIETETICS

Credits: 4 **Theory: 5hrs / week**

Objectives:

To enable students:

1. Gain knowledge on normal and therapeutic diets.

2. Acquire practical experience in planning, preparing and serving of balanced diet in health and diseases.

Course outcome

CO1 Understand principles of nutrition care.
CO2 Modify the normal diet for therapeutic purposes.
CO3 Understand the etiology, clinical features and dietary management in some common disorders / diseases.
CO4 Understand significance of dietary counselling.
CO5 Understand the multi-faceted nature of nutritional problems.
CO6 Gain knowledge about techniques of assessment of nutritional status.
CO7 Learn the various aspects of nutrition education and promotion.
CO8 Familiarise with the policy and intervention programmes operating in India to overcome malnutrition.

Unit I Introduction to Dietetics(6hrs)

Role of dietitian, link between health and nutrition

Unit II Diet Therapy(8hrs)

Principles of Diet Therapy, therapeutic modifications of normal diets and routine hospital diets – enteral and parenteral feeding

Unit III Diets in disease conditions (76hours)

1. Deficiency diseases

a. Iron deficiency anemia

b.Protein- Energy Malnutrition (PEM)

c. Vitamin A deficiency

2. Therapeutic Diets

a. Febrile conditions – TB and Typhoid

b. Obesity.

c. Diabetes mellitus.

d. Gastro intestinal disturbances – peptic ulcer, constipation and diarrhoea.

e. Liver diseases – Hepatitis and cirrhosis.

f. Renal disorders - Glomerulonephritis and urinary calculi.

g. Cardiovascular diseases – Atherosclerosis, hypertension

h. Cancer.

Reference

1. F.P. Antia, Clinical Dietetics and Nutrition, III edition, Oxford University Press, Delhi, 1989.

2. Sri. Lakshmi B., Dietetics, New Age International (p) Ltd, New Delhi - 2002.

3. Swaminathan M., Principles of Nutrition and Dietetics.

4. Subhangini Joshi, Nutrition and Dietetics

5. Robinson, Corinno H, Basic Nutrition and Diet therapy.

Journals

1. Indian Journal of Nutrition and dietetics published by Avinashilingam Deemed University, CBSE.

2. The Indian Journal of Medical Research.

3. Nutrition, a Quarterly publication of the NIN, Hyderabad.

SEMESTER VI

FCS6B06 (P)- PRACTICAL III- DIET IN HEALTH & PRACTICAL VI- - DIETETICS

Credit: 4 **Practical: 4hrs / Week**

Course Outcomes

CO1 Understand different deficiency and lifestyle diseases
CO2 Plan therapeutic diets based on principles of meal planning

Unit I Deficiency Diseases

Plan and prepare diets for Deficiency Conditions.

A .Iron deficiency anemia

b. Kwashiorkor

c. Night Blindness

Unit II Therapeutic Diets

Plan and prepare Diets for Disease Conditions

a.Routine hospital diets

b. Obesity

c. Diabetes mellitus

d. Typhoid

e. Tuberculosis

f. Peptic ulcer

g. Constipation

h. Cirrhosis

i. Acute glomerulo nephritis

j. Renal calculi

k. Hypertension.

l. Atherosclerosis

Unit III Visits to research institute / Dietary Department.

SEMESTER VI

FCS6B10 FABRIC CARE AND APPAREL DESIGNING

Credit: 4 **Theory: 5 Hrs / Week**

Objectives

1. To acquire the ability in selecting textiles and constructing garments.
2. To have the ability to know how to care for fabrics

Course outcome

CO1 Understand the principles of laundry science
CO2 Identify various tools and equipments necessary for garment construction
CO3 Apply appropriate fabric care according to the fibre type
CO4 Select appropriate apparel and accessories for various age groups, sex etc.

Unit I Water(6hrs)

Types and methods of softening (caustic soda, Lime soda, zeolite, borax)

Unit II Study on Laundry(20hrs)

Soaps and detergents, stiffening agents, bleaches, laundry blues, stain removal, dry cleaning.

Unit III Principles of laundering and storing(10hrs)

Cotton, silk, wool, rayon and synthetics.

Unit IV Traditional Indian textiles and embroideries of India (20hrs)

Textiles-Dacca muslins, Jamdhani, Baluchari, Patola, Himrus, Bandhini, Kalamakari, Brocades Chanderi, Paithani, Pitamber, Banaras brocades, Amru

Embroideries- Kashida, Phulkari, Chambarumal, Chikankari, Kantha)

Unit V Garment construction(10hrs)

Body measurements, methods of construction, parts and function of sewing machine, steps in preparing fabric before cutting, tools of sewing.

Unit VI Fashion Elements(12hrs)

Fashion cycle, Merchandising- role of a merchandiser

Unit VII Study of human figure(12hrs)

Elements and principles of design applied to apparel design, types of figures, selection of clothing for different figure types

References

1. NoemiaD'souza, Fabric Care, New Age International (P) Ltd., New Delhi.
2. JannetteJarnow, Kitty G. Dickerson, Inside Fashion Buisiness, Prentice Hall Inc., New Jersey.
3. Essay M., Fashion Marketing, Blackwell Sciences Ltd., London 2002
4. Shailaja D. Naik, Traditional Indian Textiles
5. Metha R.J., Master pieces of Indian Textiles.
6. AblingBina, Fashion Rendering with Colour, Prentice Hall Inc., Corporation, New Jersey,2001
7.MartinM.Pergler, Visual merchandising and display, Conde Nast publication, Canada,2012

SEMESTER VI

FCS6B10 (P)- PRACTICAL V- TEXTILE SCIENCE & PRACTICAL VII -FABRIC CARE AND APPAREL DESIGNING

Credits: 4 **Theory:4hrs / week**

Course outcome

CO1 Recall the use of various pattern making tools and its terminology
CO2 Apply the principles of pattern making for basic bodice and skirt, sleeves, collars and dresses
CO3 Develop the basic bodice and skirt patterns by applying the technique of drafting
CO4 Understand sourcing of fabric and procurement of other fashion material
CO5 Construct various garments and its components

PRACTICALS

1. Stitches- basic hand and decorative (embroidery- any 10)
2. Samples of any 2 traditional embroideries of India.
3. Seams and seam finishes (4 types each)
4. Bias and its application- facing- bias and shaped, piping
5. Fullness- gathers, tucks, pleats and darts (2 samples each)
6. Pockets- side and front
7. Collars- Chinese, peter pan, full shirt
8. Plackets- continuous bound, faced and bound, broken kurta
9. Sleeves- set in, kimono, puff and raglan (paper patterns)
10. Fasteners
11. Construction of garments – girl's frock, salwar, kameez and sari blouse
13. Knowledge of textiles available through industrial visit/ shops or mills

SEMESTER VI

FCS6B11 CONCEPTS IN FAMILY RELATION

Credit: 2 **Theory: 4hrs / Week**

Objectives

1. To help them understand family values.
2. To orient students for adjustment in marriage.
3. To prepare them to play the roles of a wife and mother effectively.
4. To make them aware on the laws and rights of women.

Course Outcomes

CO1 Develop healthy attitude towards marriage and interpersonal relationships
CO2 Understand the importance of family in today's social context
CO3 Solutions to thrive different circumstances in stages of life cycle
CO4 Cope better with critical family situations
CO5 Develop sound knowledge on methods of family planning
CO6 Improve the knowledge regarding legal issues concerning women

***Unit I Marriage*(15hrs)**

Definition, purpose, functions, selection of spouse, physical, emotional, social, and intellectual maturity needed by the couple, areas of adjustment, factors influencing good marital adjustment, Courtship and Engagement – significance in Indian context.

Unit II Family(15hrs)

Definition, features, types of family and functions of family, co-habitation**,** Methods of family planning.

***Unit III Family life cycle*(12 hrs)**

Stages in the family life cycle- beginning, expanding, contracting- middle age- characteristic and Adjustments(any4), old age- characteristics and problems

Unit IV Critical family situations(10hrs)

Infidelity, desertion, divorce, alcoholism, death/suicide, disabilities.

Unit V Women and law(10hrs)

Laws pertaining to marriage, women rights

References

1. Devadas R.P. and Jaya N. (1984) A Textbook on Child Development, Mac Millan, India ltd.
2. Rao C.N.S. (1990) the Family, S. Chand and Company Ltd., New Delhi.
3. Hurlock E.B., Developmental Psychology, McGraw Hill
4. Devadas R.P. and Jaya N. (1984) A Textbook on Child Development, Mac Millan, India ltD
5. Antony P. D'souze, sex education and personality development, Ustian publishers,4/7Deshabhandhu, Gupta road, New Delhi.

ELECTIVE COURSES

SEMESTER VI

FCS6B12 (E1)- ENTREPRENEURSHIP MANAGEMENT (Elective)

Credits: 3 **Theory: 3hrs / week**

Objectives:

1. Understand the nature of entrepreneurial activities
2. To make students aware of the urgent needs for self employment
3. To develop skills in project identification, preparation of project reports and its implementation.

Course Outcomes

CO1 Understand the concept of entrepreneurship
CO2 Develop entrepreneurial skills for economic development
CO3 Identify the entrepreneurial agencies and incentives to women
CO4 Develop project proposal

***Unit-1 Entrepreneurship*(9hrs)**

Definition, scope, characteristics, factors affecting entrepreneurial development, entrepreneur vs. entrepreneur, classification of entrepreneur, entrepreneur motivation, difference from a manager, role of entrepreneur in economic development.

***Unit Ii Women entrepreneurs*(9hrs)**

Definition, present status in India, steps taken for the promotion of women entrepreneurs, problems faced by women entrepreneurs

***Unit III EDP*(9hrs)**

Definition, need, Objectives, steps, agencies conducting EDP, Role of government in organizing EDP.

***Unit IV Agencies for entrepreneurial support*(9hrs)**

KITCO, SIDCO, KVIC, DIC, STED, SIDO, NSIC, TCO, SISI, SIDBI

***Unit V Small scale industries*(9hrs)**

Definition, types, role in modern economy, steps for starting SSI, problems faced by SSI, supporting mechanisms – incentives and facilities from government.

***Unit VI Project*(9hrs)**

Definition, types, steps in identification, project life cycle, scope and importance, project objectives.

References

1. Desai, N. Entrepreneurial development- Principles, programmes, Policies(Vol.1) Formulation Appraisal and Financing (VOL.II) and Programmes and Performance (VOL III) Himalaya Publishing House, Bombay, 1996
2. Vinod A, Entrepreneurship Management
3. Winze.M.D Women Entrepreneurs in India, Mital publications, New Delhi 1987.
4. Jose Paul, Entrepreunership Development
5. Jayan, Entrepreneurship Development.

SEMESTER VI

FCS6B12 (E2)- QUANTITY FOOD PREPARATION TECHNIQUES

(Elective)

Credits: 3 **Theory: 3Hours / week**

Objectives

To enable students to

1. Understand the objectives of different types of Food Service Institutions.

2. Gain knowledge in menu planning, preparation of recipes in large scale and serving and in food costing.

Course Outcomes

CO1 Identify the scope of food service industry
CO2 Using different types of menu
CO3 Analyze menu pricing and evaluation
CO4 Apply different techniques in food purchasing
CO5 Identify and develop receiving procedure and storage of food items
CO6 Build standardized recipes and portion control techniques
CO7 Understand the product standards for purchasing and selling food items
CO8 Construct different styles of food service system

***Unit I Food Service Industry*(6hrs)**

Scope and objectives of hospitality industry, different categories of hotels.

***Unit II Menu planning-The primary control of food service*(7hrs)**

Types of menu – A la carte, Table d'hote& cyclic, Static, single use, Factors affecting menu planning, menu presentation, cost concepts and menu pricing - Factor method, Prime cost method and Actual cost method.

***Unit III Purchasing*(6hrs)**

Qualities of an institutional buyer, Purchasing activity, product selection, mode of purchasing, methods of purchasing and purchasing process, purchasing records.

***Unit IV Receiving and storage*(6hrs)**

Receiving - delivery methods, delivery procedure and receiving procedure.

Storage –types (dry storage and cold storage)

***Unit V Standardization of Recipes*(7hrs)**

Standardization and portion control

***Unit VI Quantity Food production and quality control*(6hrs)**

Objectives of food production, methods of production, product standards and product control – HACCP

***Unit VII Distribution and service of Food*(7hrs)**

Types of food service – waiter service, self service and vending.

***Unit IX Budget*(9hrs)**

Steps in budget planning, break even analysis food budget, and food cost control.

Related Experience:

Standardization of 10 selected recipes used in food service Institutions and quantity food production of any two items.

REFERENCES:

1. MohiniSethi and Surjeet, M. Malhan, "Catering Management an Integrated approach", Wiley Eastern Limited, Mumbai, II edition reprinted, 1996.

2. Marian C. Spears; Food Service Organization; III Edition, Prentice Hall Inc., usa.1995.

3.West and Woods, Introduction to Food Service, Macmillan Publishing Company, New York, 7th edition, 1994.

4. Odder Cesarani and David Fosket, Theory of Catering, Odder and Stoughton, London, xth edition,2003.
5. Odder Cesarani and David Fosket, Food and beverage service, Odder and Stoughton, London, i9x t h edition, 2003.

SEMESTER VI

FCS6B12(E3)- EXTENSION EDUCATION AND COMMUNICATION (Elective)

Credit: 3 **Theory: 3hours / week**

Objectives

To enable the students to:

1. Understand the principles and objectives of extension and community development in our country.

2. Acquire knowledge and skill in using communication techniques.

3. Prepare for higher studies in Extension Education

Course outcome

CO1 Develop understanding of concept of human communication and its components.
CO2 Learn the concept of extension and it's inter - relationship with communication.
CO3 Understand the various tools and techniques in the process of communication.
CO4 Insight into the range and scope of different mass media.
CO5 Learn about concept and scope of extension in National development.
CO6 Comprehend about the concept and process of advocacy.
CO7 Develop skills for using participatory approaches in programme management.
CO8 Able to interpret and evaluate an advocacy campaign for social mobilization

Unit I *Community* Development (27hrs)

1. **Extension**

Meaning, principles, concepts, scope and objectives of extension education in India

2. **Community development in India**

Objectives, principle, philosophy, Types of communities-Rural and Urban, community developmentprogrammes in India-origin and history, Basic rural Institutions-school, panchayat,

co-operatives; other institutions- mahilamandals, youth clubs, rural youth programmes-4-Hclubs, YFA

3. **Leadership**

Concepts, definition, characteristics, types, selection and training of leaders, methods of identifying professional and lay leaders.

4. **Programme planning in Extension**

Definition, principle, criteria for good programme planning, scope, steps involved in programme development, plan of work, calendar of work, types of evaluation in extension.

5. **Rural Sociology**

Characteristics, comparison between rural and urban society, kudumbasree.

6. **Agencies and programmes for community development**

SWB, urban and rural co-operative banks, District Rural Development Agency, Employment Training and

Poverty Alleviation-IRDP, JRY, TRYSEM, DWCRA, NAEP

***Unit II Communication*(27hrs)**

1. **Communication**

Definition and importance, elements of communication- leagen's model, problems in communication, motivation- methods of motivating people

2. **Methods of approaching people**

Classification of extension teaching methods- types, scope, advantages and limitations of methods.

Individual methods- farm/home visit, office calls, personal letters and result demonstration

Group methods- method demonstration, lecture, meetings, conference

Mass methods - bulletin, circular letters, exhibits and television

3. **Audio-Visual Aids**

Importance of audio-visual aids in communication, cone of experience, factors to be considered in selection, preparation and use of audio visual aids, their merits and demerits

4. **Home Science Extension Education**

Needs and methods, vocationalization of Home Science in India, self-employment and Entrepreneurship through Home Science.

References

1. O.P.Dahama, O.P.Bhatnagar, Education and communication for Development, 2nd edition, Oxford and IBH
publishing Co., Pvt.Ltd.New Delhi.
2. S.V.Supe. An Introduction to Extension Education, Oxford and IBH publishing Co., Pvt.Ltd.New Delhi.
3. A.Advivi Reddy, Extension Education, Sreelakshmi press, Baptla.
4. Dale.E, Audio Visual methods in teaching, The Dryden Press, New York.
5. Kulendaivel.K, Audio Visual Education, Sri Ramakrishna Mission Vidyalaya, Coimbatore.
6. Dey.S.K, Panchayat Raj, Asia publishing house, Bombay, 1961.
7. Waghmore.S.K, Teaching Extension Education, Prasant publishers, Vallabha, Vidhyanagar, 1980.

OPEN COURSES

SEMESTER V

FCS5D01 FOOD SCIENCE AND BASIC COOKERY (OPEN COURSE)

Credit: 3 **Theory 3hrs / week**

Objectives

To enable students to understand the nutritive composition, methods of cooking and preservation of foods.

Course Outcomes

CO1 Understand structure, functions and classification of foods and different food groups
CO2 Understand the nutritional and anti-nutritional factors of various foods
CO3 Assess the effect of heat on foods and compare different methods of cooking
CO4 Develop different recipes and evaluate its nutritional content
CO5 Understand structure, functions and classification of foods and different food groups

Unit I Introduction to food science 4hrs

Functions of food, basic food groups and different methods and objectives of cooking.

Unit II - Study of foods 35hrs

a. Cereals

Nutrient composition general Rice and wheat , effect of heat on starch and protein, role of ingredients in bread making and cake making.

b. Pulses

Nutritive value and germination, role of pulses in cookery.

c. Vegetables

classification and nutritive value

d. Fruits

nutritive value, browning reaction

e. Milk and milk products

Nutrient composition,fermented–(curd butter,ghee) and non fermented milk products (skimmed milk,,homogenized milk, pasteurised milk),role of milk in cookery.

f. Eggs

Nutritive value, characteristics of fresh eggs, role of egg in cookery.

g. Meat

Nutrient composition

h. Fish

Nutritional composition and fish cookery.

i. Fats and Oils

Functions of oils and fats in food, rancidity.

j. Beverages

Classification, nutritional importance.

k.sugar cookery

caramelisation,hydrolysis and crystallization

UNIT111

Food preservation- principles and methods (15hrs)

Related experiences

i. Record the weight of 1 cup/ 1tbsp/ 1tsp of different types of food stuffs.

Record the ratio of raw to cooked volume of rice, rava and pulses.

Simple preparations using cereals, pulses, milk, vegetables, fruits, egg, meat and fish.

ii. Salad dressing - mayonnaise

iii. Baking – Cake, pizza, cookies (demonstration)

iv. Food preservation – Jam, squash, jelly, pickles.

References

1. Norman, N. Potter and Hotchkiss, J.H, Food Science, CBSE publishers and Distributers, New Delhi, 1996.

2. Mudambi, S.R. and Rao, S.M. Food Science, New Age International (P) ltd. Bangalore, 1989.

3. Begum, M.P., A Text Book of Food, Nutrition and Dietetics, sterling Publishers Pvt. Ltd.,

New Delhi, 2001.

4. Srilakshmi, B., Food Science, New Age International Pvt. Ltd., New Delhi.

5. Mudambi, S.R. and Rajagopal M.V., Fundamentals of Food & Nutrition, New Age International (P) Ltd., New Delhi, 1990.

6. Swaminathan, M. Handbook of Food and Nutrition, the Bangalore Printing and Publishing Co., Ltd., Bangalore, 2003.

SEMESTER V

FCS5D02 INTERIOR DECORATION (OPEN COURSE)

Credit: 3 **Theory: 3hrs / Week**

Objectives

1. To make students conscious of aesthetics.
2. To help them understand beauty in design.
3. To develop in them an appreciation of art and design.

Course Outcomes

CO1 Understand the elements and principles of design to create harmonious interior
CO2 Explain the properties of colour and its effects on the intended style
CO3 Discover the effect of natural and artificial light on colour and surface texture
CO4 Apply knowledge of design elements to the reality of placing objects in perfect manner
CO5 Create visual ideas about functional aspects of housing
CO6 Plan creative kitchen design by adapting principles
CO7 Summarise the elements of design in floral arrangement

1**. Design (2hrs)**

Definition and types- traditional, decorative, modern designs –

2. Elements of design(6 hrs)

Line,texture and light- types and effects, space, colour

3. Principles of design (7 hrs)

Proportion, balance, rhythm, emphasis and harmony.

4. Colour theory (5hrs)

Properties, prang's colour system, colour schemes, psychological implication of colours.

5. Furniture selection and arrangement (5hrs)

Principles of furniture selection and arrangement of furnitures in different rooms. Materials used in furniture construction.

6. Window treatments (5hrs)

Types- interior and exterior and curtain styles (Priscilla, cottage set, café, swags, cascade, valances, blinds,)

7. Flower arrangement (2hrs)

Types (mass, line, mass cum line,miniature and Japanesearrangement(Ikebana,)and principles.

8. Accessories (5hrs)

Classification- functional and decorative.

9. Home lighting (5hrs)

Types(local & general), Methods of lighting(direct, indirect and semi direct),Sources of lighting (Incandescent, fluorescent, structural and portable lamps), merits and demerits of incandescent bulbs and fluorescent tubes.

10. House (7 hrs)

Functions, Principles of planning a house.

11. Kitchen (5 hrs)

Types (L shaped, U shaped, H shaped ,Islandkitchens and one wall). s. Kitchen work triangle.

Related experience _ Types of design-decorative, traditional and modern

_ Elements of design-applications

_ Principles of design-illustrations

_ Colour wheel

_ Colour schemes

_ Curtain styles

_ Accessories

_ Flower arrangement

References

1. Nickel, P and Dorsey, J.M. Management in family living,Wiley Eastern Private Ltd, New Delhi, 1976

2. Gross, I.M &Grandall, D.W Management for ModernFamilies, 1973

3. Faulkner R & Faulkner S, Inside todays home,HoltRinchartWinston, Newyork

4. Rutt.A.H, Home furnishing, Wiley Eastern PrivateLtd, New Delhi

5. Varghese.M.A, Ogale, N.N.Sreenivasan,K home Management, New Age International

6. Agan.T, The house-its plan & use, J.P.Lippincottcompany, Newyork, 1970

SEMESTER V

FCS5D03 TEXTILES AND APPAREL DESIGNING (OPEN COURSE)

Credit: 3 **Theory:3hrs / week**

Objectives

1. To recognize textile fibers.
2. To acquire ability in selecting textiles and constructing garments.
3. To develop self employment opportunities.

Course Outcomes

CO1 Develop strong knowledge base in the production of fibres and yarns
CO2 Understand traditional Indian textiles and embroideries of India
CO3 Design garments keeping the elements and principles of design
CO4 Find out latest fashion trends in India

Unit I Fibre, yarn, theory and fabric construction(10hrs)

Definition, types, spinning, loom, weaving.

Unit II Weaves- Basic weaves and their variations(15hrs)

Novelty weaves- types, pile, leno, lappet, swivel, dobby, jacquard, double cloth, cut spot, continuous weave, crepe.

Unit III Fashion(5hrs)

Definition, fashion cycle, fashion trends in India

Unit IV Traditional textiles and embroideries of India.(12hrs)

Unit V Printing and dyeing(12hrs)

Types of dyes, printing methods**.**

Related Experience

1. Stitches- Basic hand and decorative (embroideries- any 10)
2. Seams and seam finishes.
4. Bias and its application.
5. Pockets- Set in, pocket in a seam, hip pocket.
6. Collars – Chinese, peter pan, full shirt
7. Plackets – Continuous bound, faced and bound broken kurta.
9. Demonstration of block prints

References

1. Hollen and Saddler; Textiles, Maxmillan.
2. Sushama Gupta, NeeruGarg, RenuSaini, Textbook of clothing and textiles, Kalyani publishers, Ludhiana.
3. Shailaja D Naik, Traditional Indian Textiles.
4. Essay M, Fashion Marketing, Blackwell Sciences Ltd., London.
5. Mary Mathews, Practical Cl

COMPLEMENTARY

FOOD AND NUTRITION

SEMESTER I

FCS1C01 FOOD SCIENCE

Credits: 2 **Theory: 2hrs / week**

Objectives

To enable students

1. Understand the nutritive composition of different food groups.
2. Impart knowledge about the different methods of cooking and food preservation.

Course Outcomes

CO1 Understand the functions of food.
CO2 Classify foods into various food groups.
CO3 List the advantages and disadvantages of various methods of preparing food.
CO4 Understand the concept of nutrient losses during cooking and enhancement of nutritional quality of foods.
CO5 Understand the basic concepts of food preservation.

Unit I Introduction to food science (6hrs)

1. Definition of food and functions of food
2. Food pyramid, basic five food groups and uses
3. Cooking-objectives and different methods of cooking.

Unit II Study of foods(20hrs)

1. Cereals

Structure (wheat) and nutrient composition

2. Pulses

Nutritive composition, germination and anti-nutritional factors.

3. Vegetables

classification and nutritive composition, pigments

.

4. Fruits

Nutritive composition, browning reaction

5. Milk and milk products

Nutrient composition of milk, milk products – curd, butter, ghee, skimmed milk,

6. Eggs

Structure, nutritive composition, characteristics of fresh eggs, role of egg in cookery

7. Meat

Nutritional significance, post-mortem changes.

8. Fish

Nutritional significance and selection.

9. Fats and Oil

Nutritional importance, smoking temperature, rancidity

10. **Sugar and its products**

Caramalisation and crystalisation

Unit III Food preservation(6hrs)

Principles and methods

Unit IV Food adulteration(6hrs)

Common adulterants and simple Test for detection of Adulterants

References

1. Norman, N. Potter and Hotchkiss, J.H, Food Science, CBSE publishers and Distributers, New Delhi, 1996.
2. Mudambi, S.R. and Rao, S.M. Food Science, New Age International (P) ltd. Bangalore, 1989.
3. Begum, M.P, A Text Book of Food, Nutrition and Dietetics, sterling Publishers Pvt. Ltd., New Delhi, 2001.
4. Srilakshmi, B., Food Science, New Age International Pvt. Ltd., New Delhi.
5. Mudambi, S.R. and Rajagopal M.V., Fundamentals of Food & Nutrition, New Age International (P) Ltd., New Delhi, 1990.
6. Swaminathan, M. Handbook of Food and Nutrition, The Bangalore Printing and Publishing Co., Ltd., Bangalore, 2003.

SEMESTER I

FCS1C01(P) - FOOD SCIENCE

Credit: 0 **Practical: 2hrs / week**

I. Food preparation

i. Record the weight of 1 cup/ 1tbsp/ 1tsp of different types of food stuffs.

ii. Record the ratio of raw to cooked volume of rice, rava and pulses.

II. Simple preparations using cereals, pulses, vegetables, fruits, milk, egg, meat and fish- using different cooking methods.

III. Food preservation – Jam, squash, pickles

IV. Test for detecting food adulteration

SEMESTER II

FCS2C02 FUNDAMENTALS OF NUTRITION

Credits: 2 **Theory: 2hrs / week**

Objectives

To enable the students to gain information about the sources, functions and effects of deficiency of various nutrients.

Course Outcomes

CO1 Comprehend relationship between food, nutrition and health.
CO2 Understand the functions of food, various food groups, balanced diet and principles of meal planning.
CO3 Understand functions of various nutrients and their sources & gaining knowledge about clinical manifestations of excess/ deficiency of nutrients

Unit I Introduction to human nutrition(2hrs)

Nutrition and health, nutritional classification of foods, nutrients present in foods.

Unit II Meal Planning(1hrs)

Principles of meal planning, balanced diets.

Unit III Recommended Dietary Allowances(1hrs)

ICMR Recommended Allowances for Indians (RDA) - Reference man & reference woman.

Unit IV Study of Macronutrients(6hrs)

Carbohydrates, proteins and fat - Classification, functions, digestion, absorption, metabolism, sources, requirements and deficiency.

Unit V Study of Vitamins(10hrs)

Functions, sources, deficiency and requirements of :- Fat soluble vitamins (Vitamin A, D, E and K) and water soluble vitamins (Vitamin B- Thiamine, Riboflavin, Niacin, folic acid and vitamin B12 and vitamin C)

Unit VI Study of minerals(8hrs)

Functions, sources, deficiency and requirements of:- Calcium, Iron, Iodine, Fluorine.

Unit VII Study of energy(4hrs)

Definition, Determination of Energy value of food by Bomb Calorimeter, Total energy requirements – BMR – factors effecting BMR, physical activity, physiological fuel value

Unit VIII Water(4hrs)

Functions, body fluids and water balance and requirements. Role of sodium and potassium in maintaining water balance

References

1. Sri. Lakshmi B., Nutrition Science, New Age International (p) Ltd, New Delhi - 2002.

2. Swaminathan M., Handbook of Food and Nutrition, the Bangalore Printing and Publishing co., Ltd., Banglore.2003.

3. Bamji M.S. et.al. Textbook of Human Nutrition, Oxford, IBH Publishers, 1999.

SEMESTER II

FCS2C02(P) - FUNDAMENTALS OF NUTRITION

Credit: 0 **Practical: 2hrs / week**

Unit I Food Analysis

Qualitative tests for

a. Proteins

b. Carbohydrates – Monosaccharide (glucose, fructose) and disaccharides

Unit II Quantitative tests

a. Vitamin C in lime juice (dye method)

b. Estimation of reducing sugar by Benedict's method

c. Calcium in food – demonstration

SEMESTER III

FCS3C03 - NUTRITION THROUGH LIFE CYCLE

Credit: 2 **Theory: 3hours / week**

Objectives

To enable the students to

3. Understand the role of nutrition in different conditions.

4. Develop competency in planning diets to meet the nutritional requirements of different socioeconomic levels.

Course Outcomes

CO1 Understand the role of food in daily life.
CO2 Compare the nutritional requirement in different age groups.
CO3 Understand nutrition related problems in life cycle.
CO4 Understand national and international health programmes to prevent malnutrition.
CO5 Plan balanced diets for different age groups.
CO6 Learn the various aspects of nutrition education and promotion
CO7 Familiarise with the policy and intervention programmes operating in India to overcome malnutrition

Unit I Meal planning(1hrs)

Link between health and Nutrition, different food groups, menu planning, balanced diets

Unit II Recommended Dietary Allowances(1hrs)

ICMR recommended allowances for Indians, Reference man and Reference women

Unit III Nutritional and food requirements for infants(4hrs)

Growth and development during infancy, nutritional requirements, breast feeding, artificial feeding, weaning

Unit IV Nutritional and food requirements for Preschool Children(4hrs)

Growth and development of preschool children, Growth chart, nutritional requirements, food habits and nutrient intake of preschool children, nutritional problems

Unit V Nutritional and food requirements for School Children(4hrs)

Physical development, food habits, nutritional requirements.

Unit VI Nutritional And Food Requirements During Adolescence(4hrs)

Nutritional requirements, food habits, nutritional problems

Unit VII Nutritional Requirements of Adults(4hrs)

Nutritional requirements, factors affecting nutritional requirements.

Unit VIII Nutritional and food requirements for expectant mothers(5hrs)

Nutritional status and general health, physiologic changes, nutritional requirements, dietary problems, and complications

Unit IX Nutritional and food requirements for lactating mother(4hrs)

Physiological adjustments during lactation, nutritional requirements, diet of lactating woman

Unit X Nutritional and food requirements during Old Age(4hrs)

Nutritional requirements, food habits, nutritional problems, changes in organ functions with age.

Unit XI Sports nutrition(4hrs)

Factors affecting physical endurance, nutrition for athletes, pre and post competition mealglycogen load.

Unit XII Assessment of Nutritional Status(5hrs)

Objectives and methods in brief

Unit XIII Nutrition Programmes and Agencies(10hrs)

Important national nutrition Programmes- ICDS, mid day meal programme, vitamin A prophylaxisprogramme, anaemia prophylaxis programmes, goitre control programme, Important national and international agencies working in the field of nutrition- WHO, FAO, NIN, CFTRI

References

1. Antia.F.P, Clinical Dietetics and Nutrition, Oxford University Press, New Delhi, 1997, 4th edition.
2. Srilakshmi.B, Dietetics, New Age International Pvt. Ltd. Publishers, New Delhi, 1997.
3. Swaminathan.M, Principles of Nutrition and Dietetics
4. Subhangini Joshi, Nutrition and Dietetics
5. Gopalan.C, Ramasastri.B.V, Nutritive value of Indian Foods, Vol.I, NIN, ICMR, 1994.
6. Mahan.J.K, Arlin.M.T, Krause's Food Nutrition and Diet Therapy 8th edition, W.B Saunders Company, 2001.

SEMESTER III

FCS3C03(P) - NUTRITION THROUGH LIFE CYCLE

Credit: 0 **Practical: 2hrs / week**

Planning diets to meet the requirement at different economic level- low, middle and high income for the following age groups

Weaning food

Preschool age

School Age

Adolescents

Adult

Pregnancy

Lactation

Old age

Weaning foods

Assess the nutritional status of the college students

SEMESTER IV

FCS4C04 DIETETICS

Credits: 2 **Theory: 3hrs / week**

Objectives

To enable students:

1. Gain knowledge on normal and therapeutic diets.
2. Acquire practical experience in planning, preparing and serving of balanced diet in health and diseases.

Course Outcomes

CO1 Understand principles of nutrition care.
CO2 Modify the normal diet for therapeutic purposes.
CO3 Understand the etiology, clinical features and dietary management in some common disorders / diseases.
CO4 Understand the multi-faceted nature of nutritional problems

Unit I Introduction to Dietetics (4hrs)

Role of dietitian, link between health and nutrition

Unit II Diet Therapy (10hrs)

Principles of Diet Therapy, Therapeutic modifications of normal diets and Routine hospital diets – Enteral and parenteral feeding

Unit III* Diets *in disease conditions (40hrs)

1. Deficiency diseases*(15hrs)*

a. Iron Deficiency Anaemia

b. Protein- Energy Malnutrition (PEM)

c. Vitamin A Deficiency

2. Therapeutic Diets*(25hrs)*

a. Febrile conditions – TB and Typhoid

b. Obesity.

c. Diabetes mellitus.

d. Gastro intestinal disturbances – peptic ulcer, constipation and diarrhoea.

e. Liver diseases – Hepatitis and cirrhosis.

f. Renal disorders - Glomerulonephritis and urinary calculi.

g. Cardiovascular diseases – Atherosclerosis, hypertension

h. Cancer.

Reference

1. F.P. Antia, Clinical Dietetics and Nutrition, III edition, Oxford University Press, Delhi,1989.
2. Sri. Lakshmi B., Dietetics, New Age International (p) Ltd, New Delhi - 2002.
3. Swaminathan M., Principles of Nutrition and Dietetics.
4. Subhangini Joshi, Nutrition and Dietetics
5. Robinson, Corinno H, Basic Nutrition and Diet therapy.

Journals

Indian Journal of Nutrition and dietetics published by Avinashilingam Deemed University, CBSE.

The Indian Journal of Medical Research.

Nutrition, a Quarterly publication of the NIN, Hyderabad

SEMESTER IV

FCS4C04 (P) –DIETETICS

Credit: 4 **Practical: 2hrs / week**

.Course Outcomes

CO1 Understand different deficiency and lifestyle diseases
CO2 Plan therapeutic diets based on principles of meal planning

Unit I Deficiency Diseases

Plan and prepare diets for Deficiency Conditions-

1. Iron deficiency anemia
2. Kwashiorkor
3. Night Blindness

Unit II Therapeutic Diets

Plan and prepare Diets for diseased conditions-

Routine hospital diets

Obesity

Diabetes mellitus

Typhoid

Tuberculosis

Peptic ulcer

Constipation

Cirrhosis

Acute glomerulo nephritis

Renal calculi

Hypertension

Atherosclerosis

Unit III Visits to research institute / Dietary Department.

MODEL QUESTION PAPER

MODEL QUESTION PAPER

CALICUT UNIVERSITY

FIRST SEMESTER B Sc DEGREE EXAMINATION, (CBCSS-UG)

Core Course- Family and Community science

FCS1B01- Fundamentals of Nutrition

Time: 2 Hours Maximum Marks: 60

Section A

Answer all questions. Each question carries 2 marks.

1. List out all essential amino acids
2. Give a note on polysaccharides
3. Symptoms of Kwashiorkor
4. Explain the role of PUFA in human body
5. Define EFA. Mention the names.
6. Define Reference Man
7. What is SDA of food
8. What are the Factors affecting Calcium Absorption
9. What are goiterogenic substances
10. What is RDA
11. Define Nutrition
12. What are the best protein rich foods and its requirement for different age groups

(ceiling marks=20 Marks)

Section B

Short answer questions.

Answer all questions. Each question carries 5 marks

13. Give a note on Classification of food
14. Explain the Digestion of Carbohydrates
15. Explain functions of Vitamin C
16. Write a note on the role of pancreas in digestion
17. Explain PEM and its treatment
18. Explain anemia and its types
19. Explain deficiency symptoms of Thiamin

(ceiling marks30 Marks)

Section C (Essay Questions)

Answer any one Questions.

Each question carries 10 marks.

20. Define BMR. Explain the factors affecting BMR.

21. Describe the metabolism of Carbohydrate.

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

SECOND SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS2B02 –HUMAN DEVELOPMENT

Time: 2Hours Max mks: 60

Section A

Answer all questions. Each question carries 2 marks

1. Medical care during pregnancy
2. Appearance of new born
3. Hemorrhoids
4. Tubal pregnancy
5. Define I.Q.
6. Define juvenile delinquency
7. Define gifted children
8. Characteristics of emotionally challenged children
9. Solitary play
10. Explain recapitulation theory
11. What is constructive play
12. What are the adjustments of neonate.

(ceiling marks=20 Marks)

Section B

Short answer questions.

Answer all questions. Each question carries 5 marks

13. Complication during pregnancy
14. Sensory abilities of new born
15. Factors influencing pre-natal development
16. Enlist any four principles of growth and development
17. What are the different types of play?
18. Types of pre- school
19. Adolescent is a period of storm and stress. Why?

(ceiling marks30 Marks)

Section C (Essay Questions)

Answer any one Question. Each question carries 10 marks

20. Discuss the various factors affecting growth and development
21. Explain exceptional children under the following heading 1. Classification 2. Causes of mentally retardation 3. Prevention of mentally retardation 4. Care of mental retardation 5. Care of gifted children.

(1x10=10)

Model Question Paper

CALICUT UNIVERSITY

THIRD SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS3B03 – RESEARCH METHODOLOGY AND BIOINFORMATICS

Time : 2 Hours Maximum Marks: 60

Section A

Answer all questions. Each question carries 2 marks

1. Define applied research
2. What is meant by dependent variable
3. Briefly explain random sampling
4. What are the steps to be remembered in preparing a questionaire
5. What is meant by hypothesis
6. List the qualities of a good research
7. Define bioinformatics
8. Write on EMBL
9. What are proteomics and genomics?
10. What is meant by data base?
11. What is genbank?
12. Write a note on sequence allignment

(ceiling marks=20 Marks)

Section B

Short answer questions.

Answer all questions. Each question carries 5 marks

13. Write a note on experimental design
14. Give a short note on action research
15. Explain briefly observations and its types
16. Write merits and demerits of sampling
17. Explain nucleotide sequence data bases
18. Explain reporting
19. Write a note on data base search engines

(ceiling marks30 Marks)

Section C (Essay Questions)

Answer any one Questions.

Each question carries 10 marks.

20. Explain scope of bioinformatics in different fields
21. Define research. Explain the types of research.

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

FOURTH SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

Core Course- Family and Community science

FCS4B04- FOOD SCIENCE

Time : 2 Hours Maximum Marks: 60

Section A

Answer all questions. Each question carries 2 marks

1. Write components of starch
2. Explain EFA
3. Briefly explain Tenderisation of meat
4. What are the different pigments present in vegetables and its effect on cooking
5. Explain Food groups
6. Define gelatinization
7. Explain food pyramid
8. Explain different methods of cooking
9. Write on crystallization
10. Explain nutritional significance of Fish
11. What are the different methods to determine the quality of egg?
12. What is meant by EFA

(ceiling marks=20 Marks)

Section B

Short answer questions.

Answer all questions. Each question carries 5 marks

13. Write a note on Stages of sugar cookery
14. Give a short note on rancidity
15. Explain briefly post mortem changes
16. Write the merits of germination
17. Explain the factors affecting gluten formation
18. Explain parboiling and its advantages and disadvantages
19. Explain Types of browning.

(ceiling marks30 Marks)

Section C (Essay Questions)

Answer any one Question.

Each question carries 10 marks.

20. Explain the structure of a cereal grain with diagram
21. Different methods of food preservation

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

FIFTH SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

Core Course- Family and Community science

FCS5B05 –HUMAN PHYSIOLOGY AND MICROBIOLOGY

Time : 2 Hours Maximum Marks: 60

Section A

Short answer questions.
Answer all questions.
Each question carries 2 marks.

1. List out the functions of Vagina
2. Give a note on salivary gland
3. Draw the waves of normal ECG
4. Explain the role of Aldosterone in human body
5. List out the composition of urine
6. Erythroblastosis fetalis
7. What is lag phase
8. Define a bacteriophage
9. What is herd immunity
10. What is endemic disease
11. Write on food spoilage
12. What are the methods and organism used for food fermentation

(ceiling marks=20)

Section B

Answer all questions in a paragraph
Each question carries 5 marks

13. Give a note on uterine cycle

14. Explain the Movement of Gastro intestinal tract
15. Explain any six properties if cardiac muscles
16. What is Micturition, explain its reflex?
17. Write a note on stages of bacterial growth
18. Explain economic importance of yeast
19. Explain viral diseases in brief

(ceiling marks 30 Marks)

Section C (Essay Questions)

Answer any one Questions.

Each question carries 10 marks.

20. Describe Cardiac Cycle and Heart Sound.
21. Write an essay on the control and destruction of bacteria

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

FIFTH SEMESTER B Sc DEGREE EXAMINATION, (CBCSS-UG)

Core Course- Family and Community science

FCS5B06 –DIET IN HEALTH

Time : 2.5Hours Maximum Marks: 80

Section A

Short answer questions.
Answer all questions.
Each question carries 2 marks.

1. Who is ARF?
2. What is the menu planning?
3. What is IDD?
4. Objectives of FAO
5. Give the RDA for male computer professional
6. Anorexia nervosa
7. Balanced diet
8. What are lactogogue? Give example
9. Define nutritional assessment
10. Define weaning
11. Why dental carries is common among school children?
12. What is carbohydrate loading?
13. Give the five food grouop system.
14. Requirement of four main nutrients in pregnancy.
15. What is the role of breast milk in infant immunity? (ceiling marks=25 Marks)

Section B

Answer all questions in a paragraph
Each question carries 5 marks

16. What are important physiological changes during pregnancy?

17. What are the objectives of school lunch programme?
18. What is complementary feeding?
19. “Obesity is an emerging problem among school children”. Why?
20. Explain the process of ageing?
21. Give nutritional requirements in adults
22. What are the immunological advantages of breast milk?
23. Explain the role of water for a sport person

(ceiling marks=35 Marks)

Section C

(Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

24. Explain the importants of nutrients in elderly. How can you modify the diet for elderly?
25. Bring out the nutritional requirements and nutritional problems of teenagers.
26. Explain the reasons for increased nutrient requirement in lactation.
27. Discuss in detail the factors affecting menu planning

(2x10=20 Marks)

Model Question Paper

CALICUT UNIVERSITY

FIFTH SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS5B07 –FAMILY RESOURCE MANAGEMENT

Time : 2.5 Hours Maximum Marks: 80

Section A

Short answer questions.

Answer all questions.Each question carries 2 marks.

1. Mention the four dimensions of colour
2. Define work simplification
3. Enlist two means to optimize satisfaction derived from the utilization of family and community resources quoting examples
4. State the advantages of Gantt chart.
5. Write a short note on types of income
6. Define rhythm and its type
7. List out different functions of window treatments.
8. What are the steps in management process?
9. What is waste management?
10. Define time management
11. What is ambient lighting?
12. Explain work triangle.
13. Illustrate café curtain.
14. Explain types of values.
15. Comment on standards. (ceiling marks=25Marks)

Section B

Answer all questions in a paragraph. Each question carries 5 marks

16. What are resources? Differentiate between human and material resources with example.
17. Enumerate the qualities of a good Home maker.
18. Describe the factors in the selection of a site for house construction.

19. State the important of supplementing income with a few examples suitable for low income families.
20. Discuss the steps in preparing of time schedule. Prepare a time schedule suitable for an employed home maker.
21. Elaborate with illustrations the six curtain styles stating where each one could be applied.
22. What are the elements of design?
23. List primary and secondary colour.

(ceiling marks=35Marks)

Section C (Essay Questions)

Answer any two Questions. Each question carries 10 marks.

24. State the important of maintaining household accounts
25. Discuss the various steps and factor's to be considered while making time plan
26. Explain the type of window treatments with illustration
27. Describe the principles of design with suitable illustration

(2x10=20 Marks)

Model Question Paper

CALICUT UNIVERSITY

FIFTH SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS5B08 –TEXTILE SCIENCE

Time : 2.5 Hours Maximum Marks : 80

Section A

Short answer questions.

Answer all questions. Each question carries 2 marks.

1. What is a regenerated fiber?
2. What is a novelty yarn?
3. What is plain weave?
4. What is bonding?
5. Define knitting
6. What is the cross section of a cotton fiber
7. Define 'fibre'
8. Write a note on sanforization
9. What is resist printing
10. What is spinning?
11. Explain napping?
12. What is fabric count.
13. Diffentiate between blends and mixtures.
14. What is bi component spinning?
15. What are the effects of mercerization on cotton ?

(ceiling marks=25 Marks)

Section B

Answer all questions in a paragraph. Each question carries 5 marks

16. What is wet spinning?
17. Give the identification of rayon and wool
18. Write a note on bicomponent and biconstituent yarn
19. Write a note on yarn twist

20. What is a pile weave?
21. Discuss about bleaching and mercerization
22. Write a note on ecolabels
23. Write a note on rotary printing

(ceiling marks=35 Marks)

Section C

(Essay Questions)

Answer any two Questions. Each question carries 10 marks.

24. Explain the classification of fibres according to their source
25. Write in details about the different finishes used on textile
26. Discuss about fancy weave
27. Explain in detail about printing (2x10=20 Marks)

Model Question Paper

CALICUT UNIVERSITY

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION

BSc. FAMILY AND COMMUNITY SCIENCE

(CBCSS-UG)

Core Course- FCS5D01- FOOD SCIENCE AND BASIC COOKERY (Open course)

Time: 2 Hours Maximum Marks: 60

Section A

Answer all. Each question carries 2 mark

1. What is dextrinisation?
2. Explain enzymatic browning.
3. What are the pigments in vegetables?
4. Explain poor man's milk.
5. What all are the importance of breakfast cereals?
6. Describe the effects of germination on pulses.
7. Name any five pigments present in vegetables.
8. Write down the different proteins in egg white and egg yolk.
9. Write any three nutritional importance of meat.
10. Explain sugar crystallization.
11. Explain the role of egg in cake making.
12. What are leavening agents?

ceiling marks=20

Section B

Answer all. Each question carries 5 marks.

13. Explain rancidity in detail.
14. Objectives of cooking.
15. Describe browning reaction.
16. Explain caramilization of sugar
17. Importance of food preservation.
18. Give the functions of oils and fat.
19. Describe the nutritional importance of beverages.

ceiling marks30

Section C

Answer any one. Each question carries 10 marks.

20. Explain the different methods of cooking with suitable examples.
21. Explain nutritional composition and importance of fish cookery.

1x10=10

Model Question paper

CALICUT UNIVERSITY

FIFTH SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS5D02 – INTERIOR DECORATION (open course)

Time: 2 hours Maximum marks: 60

Section A

Answer all questions. Each question carries 2 marks

1. Explain Japanese arrangement.
2. What is intermediate colour?
3. Functional accessories
4. What is monochromatic colour scheme?
5. What are decorative accessories?
6. Differentiate between tint and shade.
7. Explain the types of line.
8. Illustrate café curtain.
9. Draw a kitchen layout for a studio apartment.
10. What are miniature arrangements.
11. What is radial balance?
12. Explain work triangle.

(ceiling marks=20 Marks)

Section B

Answer all questions . Each question carries 5 marks

13. Explain the types of window treatment?
14. What are the materials used for flower arrangement?
15. Explain rhythm and harmony
16. Explain formal and informal balance
17. Explain psychological impact of blue colour?
18. Classify and explain colour schemes.
19. Describe the various curtain styles.

(ceiling marks30 Marks)

Section C (essay questions)

Answer any one Question. Each question carries 10 marks.

20. Explain flower arrangement under the following heading

a)Types b) Materials used c) Mass arrangement

21. Explain colours with the help of Prang's colour wheel.

(10 x1=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION

BSc. FAMILY AND COMMUNITY SCIENCE

(CBCSS-UG)

Core Course- FCS5D03- TEXTILES AND APPAREL DESIGNING (Open course)

Time: 2 Hours Maximum Marks: 60

Section A

Answer all. Each question carries 2 marks.

1. What is a fiber?
2. What is jacquard loom?
3. What is Chamba Rumal?
4. Explain kalamkari.
5. What is screen printing?
6. Comment on ecofriendly dyes.
7. Define a yarn.
8. Classify dyes.
9. What is fad aand classic
10. Explain dobby weave.
11. What is a bagh?
12. Why is chikankari termed as white embroidery?

ceiling marks=20

Section B

Answer all. Each question carries 5 marks.

13. Explain jacquard.
14. What is fashion?
15. Describe on any two types of printing.
16. Explain kashida embroidery.
17. Write a brief note on hand embroidery and machine embroidery.
18. Explain fashion cycle.
19. Explain types of phulkari

ceiling marks30

Section C

Answer any one. Each question carries 10 marks.

20. Describe about traditional textiles and embroideries of India.
21. Explain types and methods of printing.

1x10=10

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS6B09- DIETETICS

Time : 2.5 Hours Maximum Marks: 80

Section A

Short answer questions.
Answer all questions.
Each question carries 2 marks.

1. What is TPN?
2. What is GTT?
3. What is keraomalacia?
4. What are the aetiological factors of type II diabetes?
5. State on osmotic diarrhoea
6. What is DASH?
7. Classify BMI.
8. Write on carcinogens
9. What are hypocholesterolemic agents?
10. What are the metabolic changes of fever?
11. What are the preventive measures for constipation?
12. Agents responsible for liver disease.
13. Why fibre intake is restricted during cirrhosis?
14. What is low residue diet?
15. What are the components of dash diet? ceiling marks=25 Marks)

Section B

Answer all questions in a paragraph
Each question carries 5 marks

16. Explain dietary management of cirrhosis
17. Plan a days diet for a person suffering from hypertension and discuss.

18. Explain the role of fat in the cause of atherosclerosis
19. Describe the type of diet advised for a preschooler child suffering from PEM
20. Explain the dietary management for nephritis.
21. Elaborate the process of cancer cell formation
22. What is enteral nutrition? What are the conditions in which enteral nutrition is suggested?
23. Write any five code of ethics for a dietician

ceiling marks=35 Marks

Section C (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

24. Explain symptoms and dietary management of peptic ulcer
25. Explain the symptoms, types and complications of diabetes mellitus
26. Elaborate on causes, complications and dietary management of obesity
27. What is cancer? What are the dietary modifications required while treating cancer patients? (2x10=20 Marks)

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS6B10 –FABRIC CARE AND APPAREL DESIGNING

Time : 2.5 Hours Maximum Marks: 80

Section A

Short answer questions.

Answer all questions. Each question carries 2 marks.

1. Explain the causes of permanent hardness,
2. Define fashion cycle
3. Why does thread break during sewing?
4. What kind of clothes will you select for a very thin figure?
5. What are the different stages of fashion cycle?
6. What is visual merchandising?
7. What is Phulkari?
8. What is the importance of correcting stitch tension?
9. What are the basic requirement of sewing machine?
10. Write a note on bleaches
11. Four type of figures
12. Explain soft water.
13. How are stains identified?
14. Explain the theory of detergency.
15. What are pitambers? (ceiling marks=25 Marks)

Section B

Answer all questions in a paragraph. Each question carries 5 marks

16. What are the principles used during laundering of cotton fabric?
17. What is detergent?
18. What are stiffening agent? How it is applied in fabric?

19. How can lipstick stain be removed from the cotton fabric?
20. How will launder a woolen sweater?
21. What are optical brighters?
22. Write a note on tools used in sewing
23. What are the steps in fabric before cutting?

(ceiling marks=35 Marks)

Section C (Essay Questions)

Answer any two Questions. Each question carries 10 marks.

24. How will you select clothing for a following figure? Illustrate

(a) A short figure (b) Tall and stout figure (c) A plump figure

25. Write a note on:

(a) Kantha of Bnegal (b) Phulkari of Punjab (c)kalamkari

26. Describe how following stains can be removed

(a) Blood stain (b) coffee stain (c)iron rust (d) mildew

27. Explain the laundering and storing principles for wool and rayon

(2x10=20 Marks)

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B Sc DEGREE EXAMINATION,

(CBCSS-UG)

Core Course- Family and Community science

FCS6B11 –CONCEPTS IN FAMILY RELATION

Time : 2 Hours Maximum Marks: 60

Section A

Short answer questions.

Answer all questions. Each question carries 2 marks.

1 Define family
2 Define marriage
3 Stages of family cycle
4 Alcoholism
5 Courtship
6 Extended family
7 Contraception
8 Infidelity
9 Family planning
10 Single parent family
11 Polyandry
12 Mental health (ceiling marks=20 Marks)

Section B

Answer all questions in a paragraph. Each question carries 5 marks

13 Differentiate between desertion and divorce?
14 comment on contemporary issues in family life
15 What are the major objectives of marriage?
16 Discuss the merits and demerits of nuclear family
17 Give your views on mate selection
18 Enumerate the functions of marriage

19 Bring out the importance of Counseling.

(ceiling marks=30 Marks)

Section C (Essay Questions)

Answer any one Question. Each question carries 10 marks.

20 Enumerate the major functions of family

21 Explain different types of deviant sexual behaviors

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION (CBCSS-UG)

Core Course- B.Sc. Family and Community science

FCS6B12(E1) ENTREPRENEURSHIP MANAGEMENT

Time: 2 Hours Maximum Marks: 60

Section A

Answer all. Each question carries 2 marks.

1. What is Entrepreneurship ?
2. What is EDP ?
3. What is KITCO?
4. What is women Entrepreneur?
5. Define SSI
6. What is entrepreunuer?
7. What is project formulation?
8. Compare the function of NSIC and KVIC
9. What are chacteristics of an entrepreneur ?
10. Distinguish between entrepreneur and entrepreneurship.
11. Give the classification of projects.
12. What is project planning?

ceiling marks=20

Section B

Answer all. Each question carries 5 marks.

13. Explain supporting mechanism incentives and facilities from government.
14. Explain Project Life cycle.
15. Compare the function of NSIC and KVIC.
16. Give the classification of projects.
17. Write about the remedies to solve th problem faced by women entrepreneur
18. Write the characteristics of SSI.
19. Write down the problems faced by women entrepreneur.

ceiling marks=30

Section C

Answer any one. Each question carries 10 marks

20. What do you mean by EDP? Explain the objectives of EDP
21. Entrepreneurship Development holds the key for rapid economic and social development of India 1x10=10

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B Sc DEGREE EXAMINATION, (CBCSS-UG)

Core Course- B.Sc. Family and Community science

FCS6B12(E2)- QUANTITY FOOD PREPARATION TEXCHNIQUES (Elective)

Time:2 Hours Maximum Marks: 60

Section A

Answer all questions. Each question carries 2 marks.

1. Explain transport catering
2. Write on menu presentation
3. Give a note on Purchase order
4. Write about dry storage
5. List out portion control equipments
6. List out Objectives of food production
7. Give a note on Agmark
8. What is vending?
9. What is over head cost?
10. Explain delivery procedure
11. Give a short note on mode of purchase
12. What is cyclic menus? (ceiling marks=20 Marks)

Section B

Answer all questions in a paragraph

Each question carries 5 marks

13. Give a note on Catering segments
14. Explain the difference between A la carte and Table d' hote menu
15. Detail the different methods of food purchasing
16. Explain different types of cold storage method
17. Give a note on methods of food production
18. Explain the factors responsible for losses in food cost
19. Explain the behavior of food cost

(ceiling marks=30 Marks)

Section C (Essay Questions)

Answer any one Question.

Each question carries 10 marks.

20. Explain Menu under the following headings
    a) Factors affecting menu planning b) Menu Pricing
21. Elaborate the styles of service

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B.Sc. DEGREE EXAMINATION

B.Sc. FAMILY AND COMMUNITY SCIENCE **(CBCSS-UG)**

Core Course- FCS6B12 (E3) EXTENSON AND COMMUNICATION

Time: 2 Hours Maximum Marks: 60

Section A

Answer all. Each question carries 2 marks.

1. What is extension?
2. What is philosophy?
3. Describe rural and urban.
4. What is JRY?
5. What is NAEP?
6. Define communication.
7. Define leadership.
8. Explain the importance and definition of communication.
9. What is classification of extension teaching method?
10. Describe needs and methods of home science extension.
11. Describe community development in india.
12. Breifly explain the scope and objectives of extension. ceiling marks=20

Section B

Answer all questions. Each question carries 5 marks.

13. Describe on the types of communities on rural and urban.
14. Explain audio visual aids.
15. Decribe about the program planning in extension.
16. Explain IRDP,JRY,NAEP,DWCRA.
17. Describe on the origin and history of community development programs.
18. Explain the objective of extension education in India.
19. Explain rural sociology. ceiling marks=30

Section C

Answer any one. Each question carries 10 marks

20. Explain importance and elements of communication
21. Explain about self-empolyment and entrepreneurship through Home Science.

1X10=10

Model Question Paper

CALICUT UNIVERSITY

FIRST SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND NUTRITION

FCS1C01 - FOOD SCIENCE

Time : 2Hours Maximum Marks: 60 Marks

Section A

*Answer **all** questions*

Each question carries 2 mark.

1. Amino Acid deficient in pulses is known as_____
2. Name a cereal rich in iron
3. Purple coloured pigment present in vegetables is ---------
4. Name enzyme responsible for enzymatic reaction in fruits
5. Give an example for fermented milk product
6. Name protein present in egg which is denatured by heat
7. ------ is the accumulation of fat in between the muscle fibres of meat
8. Thermal breakdown of fat is ---------
9. ------- is an example of crystalline candy
10. ------- is the adulterand present in turmeric
11. What is meant by EFA?
12. Define caramelisation. (Ceiling marks 20)

Section B (Short answer questions)

*Answer any **all** questions.*

Each question carries 5 marks.

13. Define poaching . bring out the advantages of it
14. Give advantages of pressure cooking

15. What is fermentation?
16. Write a short note on tyrosine inhibitors
17. Explain food pyramid
18. Explain nutritional significance of Fish
19. What is the principle of osmosis

(Ceiling marks=30)

Section C (Essay question)

*Answer any **one** questions*

Each question carries 10 marks

20. Different methods of food preservation
21. Draw the structure of an egg and its nutritional significance

(1x10=10 Marks)

MODEL QUESTION PAPER

CALICUT UNIVERSITY

SECOND SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND NUTRITION

FCS2C02 - FUNDAMENTALS OF NUTRITION

Time: 2 Hours Maximum Marks: 60 Marks

Section A

*Answer **all** questions*

Each question carries 2 mark.

1. Who is father of Science of Nutrition
2. Osteomalacia is the deficiency of ------
3. What is first and foremost function of protein
4. Name an antioxidant vitamin
5. Germinated legumes are rich in ------
6. Iron is absorbed only in ------- form
7. During fever BMR --------
8. Salivary amylase is also known as ------
9. ------ is essential for amino acid absorption
10. Percentage of water distributed inside the cell tissue
11. Define RDA
12. Differentiate PUFA & MUFA

(Ceiling marks=20)

Section B (Short Answer Questions)

Answer all questions.

Each question carries 5 marks.

13. What is physiological fuel value
14. Protein sparing action of carbohydrate
15. 4D's associated with pellagra
16. What are trace elements
17. Describe the properties of fat
18. What are goiterogenic substances
19. Why do you measure skin fold thickness?

(Ceiling marks=30)

Section C (Essay Questions)

*Answer any **one** Question*

Each question carries 10 marks.

20. What is BMR ? Give an account of the factors affecting BMR
21. Briefly explain method of water balance in our body

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

THIRD SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND NUTRTION

FCS3C03 – NUTRITION THROUGH LIFE CYCLE

Time : 2Hours Maximum Marks: 60 Marks

Section A

*Answer **all** questions*

Each question carries 2 mark.

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1. Colostrum is rich in --------
2. Requirement of iron during pregnancy is -------
3. -------- is the hormone which help in letdown reflux
4. Spina bifida is caused by the deficiency of -------
5. Consumption of non nutrient substance in excess amount is ---------
6. PIH means -------
7. Osteoporosis is due to the deficiency of -----
8. Pot belly is the symptom of ------
9. Energy system dependent on oxygen is ---------
10. Solid food added to an infant's diet is called---------
11. What is the menu planning?
12. What is IDD?

(Ceiling marks=20)

Section B (Short Answer Questions)

Answer all questions.

Each question carries 5 marks.

13. Give the RDA for male computer professional
14. Anorexia nervosa
15. Balanced diet
16. What are lactogogue? Give example
17. Define nutritional assessment
18. Define weaning
19. Why dental carries is common among school children?

(Ceiling marks=30Marks)

Section C (Essay Questions)

*Answer any **one** Questions.*

Each question carries 10 marks.

20. Discuss the general dietary problems and complications during pregnancy
21. Bring out the nutritional requirements and nutritional problems of teenagers.

(1x10=10 Marks)

Model Question Paper

CALICUT UNIVERSITY

FOURTH SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND NUTRTION

FCS4C04 - DIETETICS

Time : 2 Hours Maximum Marks: 60 Marks

Section A

*Answer **all** questions*

Each question carries mark.

1. Accumulation of fluid in abdomen is called -------
2. Kempeners diet suggested in ---------
3. GTT is conducted to diagnose -------
4. Tuberculosis is caused by -------
5. Condition caused by inflammation of glomeruli is ----------
6. -------- is an example for n_{3-} fatty acids
7. Increased hunger is also known as --------
8. BMI is otherwise known as -------
9. Pairs patches is a symptom of -------
10. -------- is known as good colesterol
11. What is TPN?
12. What is GTT?

(Ceiling marks=20)

Section B (Short Answer Questions)

Answer all questions.

Each question carries 5 marks.

13. What is keraomalacia?
14. What are the aetiological factors of type II diabetes?
15. What is DASH?
16. Classify BMI.
17. What are hypocholesterolemic agents?
18. What are the metabolic changes of fever?
19. What are the preventive measures for constipation?
20. Agents responsible for liver disease (Ceiling marks=30)

Section C (Essay Questions)

*Answer any **one** Questions.*

Each question carries 10 marks.

21. Explain symptoms and dietary management of peptic ulcer
22. Explain the symptoms, types and complications of diabetes mellitus

(1x10=10 Marks)