



UNIVERSITY OF CALICUT

Abstract

B.Sc. Family and Community Science Programme -CUCBCSS UG 2014-Scheme and Syllabus revised w.e.f 2017 Admissions- Approved- Implemented- orders issued.

G & A - IV - J

U.O.No. 9592/2017/Admn

Dated, Calicut University.P.O, 01.08.2017

*Read:-*1. U.O.No. 6924/2014/Admn Dated, 17.07.2014.
2. Minutes of the meeting of Board of Studies in Home Science held on 29.03.2017, Item No1.
3. Minutes of the Faculty of Science held on 10.07.2017 item. No.11.
4. Extract of the item No.II.H of the minutes of the meeting of the LXXVI meeting of the Academic Council held on 17.07.2017.
5. Orders of the Vice Chancellor in the file of 191466/GA IV/J1/2013/CU dated 27.07.2017

ORDER

Vide paper read first above the Syllabus of B.Sc Family and Community Science CUCBCSS 2014 has implemented with effect from 2014 admission onwards.

Vide paper read second above,the Board of Studies in Home Science held on 29.03.2017 as item No.1 has decided to make revision in syllabus of B.Sc Family and Community Science Programme from 2017-2018 academic year onwards.

Vide paper third above, the Faculty of Science at its meeting held on 10-07-2017 as item no.11 has resolved to approve the minutes of the Board of Studies in Home Science held on 29.03.2017.

Vide paper read fourth above,the meeting of the LXXVI meeting of the Academic Council held on 17.07.2017 vide item No.II.H, has resolved to approve the minutes of the meeting of the Faculty of Science alongwith the minutes of the meetings of the the Board of Studies coming under the Faculty.

Vide paper read fifth above,the Vice Chancellor has accorded sanction to implement the Academic Council resolutions.

Accordingly orders are issued to implement the modified syllabus of B.Sc Family and Community Science Programme CUCBCSS UG 2014 with effect from 2017-18 admissions admission onwards.

Orders are issued accordingly.
(Revised Syllabus is enclosed herewith)

Ajitha P.P

Joint Registrar

To

Principals of colleges.
Controller of examinations. Ex Branch. JCE 4

Forwarded / By Order

Section Officer

**B.Sc. FAMILY AND
COMMUNITY
SCIENCE
(2017 Admission Onwards)**

SYLLABUS FOR B.Sc FAMILY AND COMMUNITY SCIENCE PROGRAMME (CORE COURSES) (2017 Admission Onwards)

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

B Sc FAMILY AND COMMUNITY SCIENCE 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	2	2	2	-	17
II	4+3	4	2	2	2	-	17
III	4	4	2	2	2	-	14
IV	4	4	3+4*	2+4*	2+4*	-	27
V	-	-	3+3+2*+2+ 2*+2+2*+ 2**	-	-	2	20
VI	-	-	5+5*+5+5*+ 2+3	-	-	-	25
Total	22	16	56	12	12	2	120

*Practical

**Project

Mark Distribution and Indirect Grading System

Mark system is followed instead of direct grading for each question. After external and internal evaluations marks are entered in the answer scripts. Indirect Grading System in 7 point scale will be followed. Each course is evaluated by assigning marks with a letter grade (A⁺, A, B, C, D, E or F) to that course by the method of indirect grading.

Mark Distribution

Sl.No.	Course	Marks
1	English	600
2	Additional Language	400
3	Core course: Family and Community Science	1750
4	Complementary course: Chemistry	400
5	Complementary course: Botany/Zoology/Physics	400
6	Open Course	50
	Total Marks	3600

Seven point Indirect Grading System

% of Marks	Grade	Interpretation	Grade Point Average	Range of Grade points	Class
90 and above	A ⁺	Outstanding	6	5.5- 6	First Class with distinction
80 to below 90	A	Excellent	5	4.5 - 5.49	
70 to below 80	B	Very good	4	3.5 - 4.49	First Class
60 to below 70	C	Good	3	2.5 - 3.49	
50 to below 60	D	Satisfactory	2	1.5 - 2.49	Second Class
40 to below 50	E	Pass/Adequate	1	0.5 - 1.49	Pass
Below 40	F	Fail	0	0 - 0.49	Fail

An aggregate of E grade with 40% marks (after external and internal put together) is required in

each course for a pass and also for awarding a degree. Appearance for Internal Assessment (IA) and End Semester Evaluation (ESE)) are compulsory and no grade shall be awarded to a candidate if she/he is absent for IA/ESE or both.

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

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.

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

$$CGPA = \frac{\text{Total credit points obtained in all semesters}}{\text{Total credits}}$$

CREDIT AND MARK DISTRIBUTION IN EACH SEMESTERS

(2017 Admission Onwards)

Total credits: 120; Total Marks: 3600

Semester	Course	Credit	Marks
I	Common course: English	4	100
	Common course: English	3	100
	Common course: Additional Language	4	100
	Core Course: FCSIBOI - Fundamentals of Nutrition	2	100
	Complementary course: Chemistry	2	80
	Complementary course: Botany/Zoology/Physics	2	80
	Total	17	560
II	Common course: English	4	100
	Common course: English	3	100
	Common course: Additional Language	4	100
	Core Course : FCS2BO2- Human Development	2	100
	Complementary course: Chemistry	2	80
	Complementary course: Botany/Zoology/Physics	2	80
	Total	17	560
III	Common course: English	4	100
	Common course: Additional Language	4	100
	Core Course : FCS3BO3- Research Methodology and Bio Informatics	2	100
	Core Course : FCS3BO3(P)- Research Methodology and Bio Informatics	-	-
	Complementary course: Chemistry	2	80
	Complementary course: Botany/Zoology/Physics	2	80
	Total	14	460
	Common course: English	4	100
	Common course: Additional Language	4	100

IV	Core Course : FCS4BO4- Food Science	3	100
	Core Course Practical: FCS4BO4(P)-Food Science	4	100
	Complementary course: Chemistry	2	80
	Complementary course: Botany/Zoology/Physics	2	80
	Complementary course: Chemistry Practical	4	80
	Complementary course: Botany/Zoology/Physics Practical	4	80
	Total	27	720
V	Core Course : FCS5BO5- Human Physiology and Microbiology	3	100
	Core Course : FCS5BO6-Diet in Health	3	100
	Core Course Practical : FCS5BO6(P)-Diet in Health	2	50
	Core Course : FCS5BO7-Family Resource Management	2	100
	Core Course Practical : FCS5BO7(P)-Family Resource Management	2	100
	Core Course : FCS5BO8-Textile Science	2	100
	Core Course Practical : FCS5BO8(P)-Textile Science	2	50
	Open Course : FCS5D01: Food Science and Basic Cookery FCS5D02: Interior Decoration FCS5D03: Textiles and Apparel Designing	2	50
	Project	2	50
	Total	20	700
VI	Core Course : FCS6BO9- Dietetics	5	100
	Core Course : FCS6BO9(P)- Practical VI- Dietetics	5	100
	Core Course : FCS6B10-Fabric care and Apparel Designing	5	100
	Core Course : FCS6B10(P)-Practical VII- Fabric care and Apparel Designing	5	100
	Core Course: FCS6B11-Concepts in Family Relation	2	100
	Core Course: Elective Courses	3	100
	Total	25	600
	Grand Total	120	3600

B Sc FAMILY AND COMMUNITY SCIENCE

CORE COURSE STRUCTURE UNDER CUCBCSS (2017 Admission Onwards)

Semester	Code No.	Course Title	Hrs/ Week	Credit	Marks		
					EE (80%)	IE (20%)	Total
I	FCSIBO1	Fundamentals of Nutrition	4	2	80	20	100
II	FCS2BO2	Human Development	4	2	80	20	100
III	FCS3BO3	Research Methodology and Bio Informatics	3	2	80	20	100
	FCS3BO3(P)	Practical I- Research Methodology and Bio Informatics	2	-	-	-	-
IV	FCS4BO4	Food Science	3	3	80	20	100
	FCS4BO4(P)	Practical II –Food Science	2	4	80	20	100
V	FCS5BO5	Human Physiology and Microbiology	4	3	80	20	100
	FCS5BO6	Diet in Health	3	3	80	20	100
	FCS5BO6 (P)	Practical III – Diet in Health	4	2*	40	10	50
	FCS5BO7	Family Resource Management	2	2	80	20	100
	FCS5BPO7(P)	Practical IV- Family Resource Management	2	2*	80	20	100
	FCS5BO8	Textile Science	2	2	80	20	100
	FCS5BO8 (P)	Practical V- Textile Science	4	2*	40	10	50

	FCS5PR	Project	2	2	40	10	50
VI	FCS6BO9	Dietetics	5	5	80	20	100
	FCS6BO9(P)	Practical VI- Dietetics	4	5*	80	20	100
	FCS6B10	Fabric Care and Apparel Designing	5	5	80	20	100
	FCS6B10(P)	Practical VII- Fabric Care and Apparel Designing	4	5*	80	20	100
	FCS6B11	Concepts in Family Relation	4	2	80	20	100
	(E1)	Elective Courses** Entrepreneurship Management	3	3	80	20	100
	(E2)	Quantity Food Preparation Techniques					
	(E3)	Extension Education and Communication					
TOTAL				56			1750
OPEN COURSE							
					Marks		
					EE	IE	Total
FCS5D01:	Food Science and Basic Cookery	2	2	40	10	50	
FCS5D02:	Interior Decoration						
FCS5D03:	Textiles and Apparel Designing						
GRAND TOTAL				58			1800

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

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

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	3	64	16	80
	FCS1C01(P)	Practical I- Food Science		2	-	-	-	-	-
II	FCS2C02	Fundamentals of Nutrition	2		2	3	64	16	80
	FCS2C02(P)	Practical II- Fundamentals of Nutrition		2	-	-	-	-	-
III	FCS3C03	Nutrition Through Life Cycle	3		2	3	64	16	80
	FCS3C03(P)	Practical III - Nutrition Through Life Cycle		2	-	-	-	-	-
IV	FCS4C04	Dietetics	3		2	3	64	16	80
	FCS4C04(P)	Practical IV- Dietetics		2	4	3	64	16	80
Grand Total					12				400

EVALUATION

A) Theory: Every Semester

100 Marks for each paper.

QUESTION PAPER PATTERN FOR CORE

For a paper total marks is 80+20=100.

External : 80 marks , Internal : 20 mark

Open course, 40+10=50

Project work , 40+10=50

Distribution of marks and type of questions.**Internal marks distribution**

Sl.No	Criteria	Marks
1	Attendance	4
2	Assignments	4
3	Seminar	4
4	Internal Examination-2	8
Total		20

External marks distribution

Category	Total Questions	To be answered	Marks for each question	Total
Section A – One sentence	10	10	1	10
Section B- Paragraph	12	10	2	20
Section C- Short essay	8	5	6	30
Section D-Essay	4	2	10	20
Total				80

Open course marks distribution

Internal marks distribution

Sl.No	Criteria	Marks
1	Attendance	2
2	Assignments	2
3	Seminar	2
4	Internal Examination-2	4
Total		10

External marks distribution

Category	total Questions	To be answered	Marks for each question	Total
Section A –one word	5	5	1	5
Section B- One sentence	5	5	2	10
Section C- Paragraph	5	3	5	15
Section D-Essay	3	1	10	10
Total				40

B) PRACTICAL**Practical internal marks distribution (FCS5B06 (P)-DIET IN HEALTH & FCS5B08 (P)-TEXTILE SCIENCE)**

Sl.No	Criteria	Marks
1	Attendance	2
2	Performance	2
3	Record	2
4	Class Test (2)	4
Total		10

Practical internal marks distribution for -

a) FCS4BO4 (P) -Food Science

b) FCS6BO9 (P) - Dietetics

c) FCS6B10 (P) - Fabric Care and Apparel Designing

Sl.No	Criteria	Marks
1	Attendance	4
2	Performance	4
3	Record	4
4	Internal Examination-2	8
Total		20

FCS5BPO7(P) - FAMILY RESOURCE MANAGEMENT

Sl.No	Criteria	Marks
1	Attendance	5
2	Performance	8
3	Record	5
4	Handicraft	2
Total		20

Practical -External marks distribution

FCS4B04(P) -FOOD SCIENCE

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

FCS5B07(P) FAMILY RESOURCE MANAGEMENT

Sl . No	Criteria	Mark
1	Presentation and Viva	35
2	Role performance	25
7	Record	20
TOTAL		80

FCS5B06(P)-DIET IN HEALTH

Sl . No	Criteria	Mark
1	Diet Planning	10
2	Nutritive Value Calculation	10
3	Record	20
TOTAL		40

FCS5B08(P)-TEXTILE SCIENCE

Sl . No	Criteria	Mark
1	Neatness and Completion	10
2	Selection of Samples	10
3	Record	20
TOTAL		40

FCS6B09(P) 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

FCS5B10(P) 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	Initiative	1
2	Interest in Research	1
3	Regularity	1
4	Efficiency	1
5	Writing Skills	1
6	Project Presentation	2
7	Viva	3
Total		10

Project evaluation (External Marks)

Sl.No	Criteria	Marks
1	Choice of the Topic	2
2	Introduction and Objectives	3
3	Review of literature and Bibliography	5
4	Methodology	3
5	Results and Discussion	10
6	Summary and conclusion	2
7	Presentation	5
9	Over all	3
10	Viva	7
TOTAL		40

COMPLEMENTARY COURSES – FOOD AND NUTRITION

A) Theory Evaluation Scheme: Every Semester

80 Marks for each paper

QUESTION PAPER PATTERN FOR COMPLEMENTARY

For a paper total marks is $64 + 16 = 80$

External : 64marks, Internal: 16 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

Sl. No	Criteria	Marks
1	Attendance	4
2	Assignments	2
3	Seminar	2
4	Internal Examination 2	4+4
Total Marks		16

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

Table 3: Pattern of Test Papers

Duration	Pattern	Total number of	Number of questions to	Marks for each	Marks
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		questions	be answered	question	
3hours	1 word/ 1 phrase/ true or false	10	10	1	10
	Short answers – one/two sentences	10	7	2	14
	Paragraph/ half page	6	4	5	20
	Essay within two page	4	2	10	20
	Total Marks				64

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

Duration	Pattern	Total number of questions	Number of questions to be answered	Marks for each question	Marks
3hours	1 word/ 1 phrase/ true or false	10	10	1	10
	Short answers – one/two sentences	10	7	2	14
	Paragraph/ half page	6	4	5	20
	Essay within two page	4	2	10	20
	Total Marks				64

B) PRACTICAL - FCS4C04(P)- DIETETICS

Table 1: internal marks Distribution

Sl. No.	Criteria	Marks
1	Attendance	2
2	Performance	2
3	Record	4
4	Internal Examination (2)	4+4
Total Marks		16

Table 2: External Mark Distribution

Sl. No	Criteria	Marks
1	Presentation	8
2	Taste & Serving	4
3	Time & Cleanliness	4
4	Principle	4
5	Menu Plan	8
6	Calculation	8
7	RDA (8 nutrients with units)	8
8	Record	20
Total Marks		64

CORE COURSES

SEMESTER I
FCS1 B01 FUNDAMENTALS OF NUTRITION

Credits: 2

Theory: 4hrs / week

Objectives:

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

Unit I Introduction to human nutrition (5hrs)

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

Unit II Recommended 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., Bangalore.2003.
3. Bamji M.S. et.al. Textbook of Human Nutrition, Oxford, IBH Publishers, 1999.

SEMESTER II

FCS2 B02 HUMAN DEVELOPMENT

Credit: 2

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.

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.

Unit IV 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 sensory impairments.

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, Mc Graw Hill, Kogakurtia Ltd.
2. Hurlock E.B., Child Growth and Development, Mc Graw Hill
3. Hurlock E.B., Developmental Psychology, Mc Graw 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

FCS 3 B03 - 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

Unit I Fundamentals of Research: (8hrs)

Definition of research, objectives, characteristics and types – action research, applied research, ex post 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, 2nd edition, 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 in India
Application of bioinformatics in various fields

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, New York
3. Khan I A & A Khayum. 2002, Fundamentals of Bioinformatics, Ukkaz Publications, Hyderabad
4. Less A M. 2002. Introduction to Bioinformatics. Oxford University press. Oxford

SEMESTER III

FCS3B03(P) PRACTICAL 1 -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

FCS 4 B04 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.

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

FCS4 B04(P) PRACTICAL II FOOD SCIENCE

Credits: 4

Practical: 2hrs / week

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 fish using different cooking methods.
- iv. Weaning recipes
- v. Food preservation – Jam, squash, pickles

Unit II Food Analysis 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

FCS5 B05 HUMAN PHYSIOLOGY AND MICROBIOLOGY

Credits: 3

Theory: 4 hrs / week

Part-I HUMAN PHYSIOLOGY

Objective

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

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 glands ovaries, testis and placenta.

References

1. Chatterjee C.C., Human Human Physiology
2. Sarada Subramaniam and Madhavankutty K.A, A Concise Text Book of Human Physiology Orient Longman pub. New Delhi.
3. Vidya Ratan ,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.D Armour, 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

FCS 5 B06 DIET IN HEALTH

Credit: 3

Theory: 3hours/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.

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

FCS 5 B06(P)- PRACTICAL III -DIET IN HEALTH

Credit:2

Practical:4hrs/week

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

FCS5 B07 FAMILY RESOURCE MANAGEMENT

Credit: 2

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

Unit I Principles of Resource Management (18hrs)

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

Fatigue-types, causes and methods to elevate fatigue

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

Unit III Time management

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 IV Housing

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

Unit V Interior decoration

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.Lippincott company, Newyork, 1970
7. Ruth.F.Shewood, homes today and tomorrow, 1972, Chas.A.Benett company 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. Enviornmental Biology, Nidi publication.Ltd, Bikaner,2001.
- 10 Miller T.G., Enviornment science, Wardsworth publicationco. TB.

SEMESTER V

FCS5 B07 (P) PRACTICL IV -FAMILY RESOURCE MANAGEMENT

Credit: 2

Hours: 2hrs / Week

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: 2

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

Unit I Fibre Theory: (3hrs)

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

Unit II Textile Fibres- (5 hrs)

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

Unit III Yarn Construction (5 hrs)

Definition, spinning- cotton system, open end, wet spinning, dry spinning, melt spinning, bi component 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- (5 hrs)

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

Unit VI Finishes (5 hrs)

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. Susheela Dantyagi, 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, Mc Graw Hill Book Company, New York.
5. www.fiber2fashion.com

SEMESTER V

FCS5 B08 (P) PRATICALS V TEXTILE SCIENCE

Credit: 2

Hours: 4hrs / Week

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

FCS5PR-PROJECT

Credit: 2

Theory: 2hours / week

Objectives

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

Content

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

SEMESTER VI

FCS6 B09 DIETETICS

Credits: 5

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.

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

FCS6 B09(P)- PRACTICALS VI- - DIETETICS

Credit: 5

Practical: 4hrs / Week

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

FCS6 B10 FABRIC CARE AND APPAREL DESIGNING

Credit: 5

Theories: 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

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, Chamba rumal, 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. Noemia D'souza, Fabric Care, New Age International (P) Ltd., New Delhi.
2. Jannette Jarnow, 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. Abling Bina, Fashion Rendering with Colour, Prentice Hall Inc., Corporation, New Jersey, 2001
7. Martin M. Pergler, Visual merchandising and display, Conde Nast publication, Canada, 2012

SEMESTER VI

FCS6 B10(P)- PRACTICAL VII -FABRIC CARE AND APPAREL DESIGNING

Credits: 5

Theory:4 hrs / week

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

FCS6 B11 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.

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, Mc Graw Hill
4. Devadas R.P. and Jaya N. (1984) A Textbook on Child Development, Mac Millan, India ltd
5. Antony P. D'souza, sex education and personality development, Ustian publishers, 4/7 Deshabhandhu, Gupta road, New Delhi.

ELECTIVE COURSES

SEMESTER VI

FCS 6 E01- 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.

Unit-I 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, Entrepreneurship Development
5. Jayan, Entrepreneurship Development.

SEMESTER VI

FCS6 E02- 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.

Unit I Food Service Industry (6 hrs)

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. Mohini Sethi 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. Odger Cesarani and David Fosket, Theory of Catering, Odger and Stoughton, London, xth edition, 2003.
5. Odger Cesarani and David Fosket, Food and beverage service, Odger and Stoughton, London, 19th edition, 2003.

SEMESTER VI

FCS6E03- EXTENSION 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

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 development programmes in India-origin and history, Basic rural Institutions-school, panchayat, co-operatives; other institutions- mahila mandals, youth clubs, rural youth programmes-4-H clubs, 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, Bapla.
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

FCS 5 D01 FOOD SCIENCE AND BASIC COOKERY (OPEN COURSE)

Credit: 2

Theory 2hrs / week

Objectives

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

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 20hrs

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 (12hrs)******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.
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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

FCS 5 D02 INTERIOR DECORATION (OPEN COURSE)

Credit: 2.

Theory: 2hrs / 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.

1. Design (2hrs)

Definition and types- traditional, decorative, modern designs –

2. Elements of design(4hrs)

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

3. Principles of design (4hrs)

Proportion, balance, rhythm, emphasis and harmony.

4. Colour theory (4hrs)

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

5. Furniture selection and arrangement (4hrs)

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

6. Window treatments (4hrs)

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 Japanese arrangement(Ikebana,)and principles.

8. Accessories (2hrs)

Classification- functional and decorative.

9. Home lighting (4hrs)

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 (6hrs)

Functions, Principles of planning a house.

11. Kitchen (3hrs)

Types (L shaped, U shaped, H shaped ,Island kitchens 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 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

SEMESTER V

FCS 5 D03 TEXTILES AND APPAREL DESIGNING (OPEN COURSE)

Credit: 2

Theory:2hrs / week

Objectives

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

Unit I Fibre, yarn, theory and fabric construction (6hrs)

Definition, types, spinning, loom, weaving.

Unit II Weaves- Basic weaves and their variations(10hrs)

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

Unit III Fashion(4hrs)

Definition, fashion cycle, fashion trends in India

Unit IV Traditional textiles and embroideries of India. (6hrs)

Unit V Printing and dyeing(10hrs)

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, Neeru Garg, Renu Saini, 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 C1

COMPLIMENTARY FOOD AND NUTRITION

SEMESTER I

FCS1 C01 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.

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 crystallisation

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

FCS1 C01(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

FCS2 C02 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.

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., Bangalore.2003.
3. Bamji M.S. et.al. Textbook of Human Nutrition, Oxford, IBH Publishers, 1999.

SEMESTER II

FCS2 C02(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

FCS3 C03 - 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.

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 prophylaxis programme, 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

FCS3 C03(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

FCS4 C04 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.

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

FCS4 C04(P) –DIETETICS

Credit: 4

Practical: 2hrs / week

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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
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS1BO1- FUNDAMENTALS OF NUTRITION

Time: 3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence. Each question carries 1 mark

1. Name one macronutrient
2. Expand NTD
3. Give one example for high biological value protein
4. Niacin deficiency is lead to -----
5. Beauty vitamin is known as -----
6. Normal range of BMI
7. Oxidation of fat is known as-----
8. Sugar present in milk
9. ----- is the visual purple photosensitive pigment of rod cells of retina
10. ----- is an example of PUFA

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions. Each question carries 2 marks

11. List out all essential amino acids
12. Give a note on polysaccharides
13. Symptoms of Kwashiorkor
14. Explain the role of PUFA in human body
15. Define EFA. Mention the names.
16. Define Reference Man
17. What is SDA of food
18. What are the Factors affecting Calcium Absorption
19. What are goiterogenic substances

20. What is RDA
21. Define Nutrition
22. What are the best protein rich foods and its requirement for different age groups

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph

Each question carries 6 marks

23. Give a note on Classification of food
24. Explain the Digestion of Carbohydrates
25. Explain functions of Vitamin C
26. Write a note on the role of pancreas in digestion
27. Write a note on Functions of Fat
28. Explain PEM and its treatment
29. Explain anemia and its types
30. Explain deficiency symptoms of Thiamin

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

31. Define BMR. Explain the factors affecting BMR.
32. Describe the metabolism of Carbohydrate.
33. Explain in detail about functions, sources and deficiency of Vitamin A
34. Functions of water and water balance in our body.

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
SECOND SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS2 B02 –HUMAN DEVELOPMENT

Time: 3Hours

Maximum marks : 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. The care given to pregnant women is
2. The period of zygote also called
3. Full form of I.C.D.S
4. Play which is a type of make believe play
5. Who put forward Surplus theory
6. How much time a new born sleeps
7. Age of adolescent period can
8. Outer part of embryo is called
9. From which week mother can feel the movement of the foetus?
10. one sign of pregnancy is

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions. Each question carries 2 marks

11. Medical care during pregnancy
12. Appearance of new born
13. Hemorrhoids
14. Tubal pregnancy
15. Define I.Q.
16. Define juvenile delinquency
17. Define gifted children
18. Characteristics of emotionally challenged children

19. Solitary play
20. Explain recapitulation theory
21. What is constructive play
22. What are the adjustments of neonate.

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph. Each question carries 6 marks

23. Complication during pregnancy
24. Sensory abilities of new born
25. Factors influencing pre-natal development
26. Enlist any four principles of growth and development
27. Explain objectives of play
28. What are the different types of play?
29. Types of pre- school
30. Adolescent is a period of storm and stress. Why?

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions. Each question carries 10 marks

31. Discuss the various factors affecting growth and development
32. Characteristics of adolescents
33. 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.
34. Explain stages of pre-natal development

(2x10=20)

Model Question Paper
CALICUT UNIVERSITY
THIRD SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS3 B03 – RESEARCH METHODOLOGY AND BIOINFORMATICS

Time : 3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. There are ----- types of sampling
2. The structured set of questions usually send by -----
3. The areas used in bioinformatics to process biological data include computer science, maths, and -----
4. Collecting data in a systematic and aligned way is called-----
5. ----- is one which changes in relationship to changes in another field
6. Libraries of life science information are called-----
7. The research aims at finding a solution for an immediate problem facing a society
8. Explanation of BLAST IS -----
9. A tool used for collecting data when large samples are desired
10. The method of data collection from each and every unit of the population

(10x1=10 marks)

Part B

Short answer questions.

Answer any ten questions.

Each question carries 2 marks.

11. Define applied research
12. What is meant by dependent variable
13. Briefly explain random sampling
14. What are the steps to be remembered in preparing a questionnaire
15. What is meant by hypothesis
16. List the qualities of a good research
17. Define bioinformatics
18. Write on EMBL

19. What are proteomics and genomics?
20. What is meant by data base?
21. What is genbank?
22. Write a note on sequence allignment

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph

Each question carries 6 marks

23. Write a note on experimental design
24. Give a short note on action research
25. Explain briefly observations and its types
26. Write merits and demerits of sampling
27. Explain nucleotide sequence data bases
28. Explain reporting
29. Write a note on data base search engines
30. Write data bases for human resources

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

31. Explain scope of bioinformatics in different fields
32. Define research. Explain the types of research
33. Write about all important concepts relating to research design
34. Explain key bio sequences in molecular biology

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FOURTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS4BO4- FOOD SCIENCE

Time : 3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. A milk protein is -----
2. A water soluble pigment -----
3. ----- is an effect of dry heat on cereals
4. -----s an example for EFA
5. Fondant and fudge are examples for ----- candies
6. The natural enzyme in meat that helps in meat tenderization is -----
7. Building blocks of protein is -----
8. Thermal breakdown of fat is -----
9. The formation of dark greenish discoloration in hardboiled egg is due to ----- formation
10. At 170⁰C sugar converts into ----- (10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions.

Each question carries 2 marks.

11. Write components of starch
12. Explain EFA
13. Briefly explain Tenderisation of meat
14. What are the different pigments present in vegetables and its effect on cooking
15. Explain Food groups
16. Define gelatinization
17. Explain food pyramid
18. Explain different methods of cooking
19. Write on crystallization
20. Explain nutritional significance of Fish

21. What are the different methods to determine the quality of egg?
22. What is meant by EFA

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph

Each question carries 6 marks

23. Write a note on Stages of sugar cookery
24. Give a short note on rancidity
25. Explain briefly post mortem changes
26. Write the merits of germination
27. Explain the factors affecting gluten formation
28. Explain parboiling and its advantages and disadvantages
29. Explain Types of browning
30. Explain Antinutritional Factors present in Pulses

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

31. Explain the structure of a cereal grain with diagram
32. Different methods of food preservation
33. Draw the structure of an egg and its nutritional significance
34. Explain adulteration. Explain any five tests to find out adulterants in food

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FIFTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS5 BO5 –HUMAN PHYSIOLOGY AND MICROBIOLOGY

Time : 3Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. Universal Blood Donor
2. Cup shaped structure of Nephron is called -----
3. Which Hormone helps in the reabsorption of water from renal tubule
4. ----- is called Pacemaker of Heart
5. ----- is otherwise called Succus entericus
6. Name the disease that MMR vaccination protects against
7. Typhoid fever is caused by -----
8. Penicillin is produced from the organism called -----
9. Destruction of microbes by the use of chemicals is known as -----
10. The organism that causes mouldyness in bread is ----- (10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions.

Each question carries 2 marks.

11. List out the functions of Vagina
12. Give a note on salivary gland
13. Draw the waves of normal ECG
14. Explain the role of Aldosterone in human body
15. List out the composition of urine
16. Erythroblastosis fetalis
17. What is lag phase
18. Define a bacteriophage

19. What is herd immunity
20. What is endemic disease
21. Write on food spoilage
22. What are the methods and organism used for food fermentation (10x2=20 Marks)

Part C

Answer any five questions in a paragraph

Each question carries 6 marks

23. Give a note on uterine cycle
24. Explain the Movement of Gastro intestinal tract
25. Explain any six properties of cardiac muscles
26. What is Micturition, explain its reflex?
27. Write a note on stages of bacterial growth
28. Explain economic importance of yeast
29. Explain viral diseases in brief
30. Explain immunization schedule

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

31. Pituitary is known as Master gland, Elaborate.
32. Describe Cardiac Cycle and Heart Sound.
33. Explain in detail about food borne infection. Discuss the methods of control and prevention
34. Write an essay on the control and destruction of bacteria

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FIFTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS5 BO6 –DIET IN HEALTH

Time : 3Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. Colostrum is rich in -----
2. Requirement of iron during pregnancy is -----
3. ----- is the hormone which help in let down 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-----

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions.

Each question carries 2 marks.

11. Who is ARF?
12. What is the menu planning?
13. What is IDD?
14. Objectives of FAO
15. Give the RDA for male computer professional
16. Anorexia nervosa
17. Balanced diet

18. What are lactogogue? Give example
19. Define nutritional assessment
20. Define weaning
21. Why dental carries is common among school children?
22. What is carbohydrate loading?

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph
Each question carries 6 marks

23. What are important physiological changes during pregnancy?
24. What are the objectives of school lunch programme?
25. What is complementary feeding?
26. "Obesity is an emerging problem among school children". Why?
27. Explain the process of ageing?
28. Give nutritional requirements in adults
29. What are the immunological advantages of breast milk?
30. Explain the role of water for a sport person

(5x6=30 Marks)

Part D

(Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

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

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FIFTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS5 B07 –FAMILY RESOURCE MANAGEMENT

Time : 3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. An acquired tendencies to respond positively or negatively, favorably or unfavorably to person, objects, ideas or events is
2. The satisfaction experienced through the use of real income or money is
3. The incapacity for manual exertion caused by previous exertion
4. Name one complimentary colour.
5. What one expects to do in a given periods of time indicating the sequence of various activities and the time for each activity.
6. Feeling of smallness or bigness which a space or interior elements gives us
7. A plan for spending and saving within a given income for a definite period is called
8. The Japanese tradition for growing miniature trees in containers
9. The path connecting sink, cooking area and storage
10. Name one primary colour.

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions. Each question carries 2 marks.

11. Mention the four dimensions of colour
12. Define work simplification
13. Enlist two means to optimize satisfaction derived from the utilization of family and community resources quoting examples
14. State the advantages of Gantt chart.
15. Write a short note on types of income
16. Define rhythm and its type

17. List out different functions of window treatments.
18. What are the steps in management process?
19. What is waste management?
20. Define time management
21. What is ambient lighting?
22. Explain work triangle

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph. Each question carries 6 marks

23. What are resources? Differentiate between human and material resources with example.
24. Enumerate the qualities of a good Home maker.
25. Describe the factors in the selection of a site for house construction.
26. State the important of supplementing income with a few examples suitable for low income families.
27. Discuss the steps in preparing of time schedule. Prepare a time schedule suitable for an employed home maker.
28. Elaborate with illustrations the six curtain styles stating where each one could be applied.
29. What are the elements of design?
30. List primary and secondary colour.

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions. Each question carries 10 marks.

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

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FIFTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS5 B08 –TEXTILE SCIENCE

Time : 3 Hours

Maximum Marks : 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

35. Example of novelty yarn
36. A fabric made of flax fiber
37. Example of synthetic fiber
38. Yarn made by twisting two single yarns.
39. The lengthwise yarns in a woven fabric.
40. A variation of plain weave
41. Small geometric designs are produced by weave
42. Process of adding colour at the fibre stage
43. An example of direct printing
44. A finish to improve the luster of a cotton fabric

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions. Each question carries 2 marks.

45. What is a regenerated fiber?
46. What is a novelty yarn?
47. What is plain weave?
48. What is bonding?
49. Define knitting
50. What is the cross section of a cotton fiber
51. Define 'fibre'
52. Write a note on sanforization
53. What is resist printing

- 54. What is spinning?
- 55. Explain napping?
- 56. What is fabric count

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph. Each question carries 6 marks

- 57. What is wet spinning?
- 58. Give the identification of rayon and wool
- 59. Write a note on bicomponent and biconstituent yarn
- 60. Write a note on yarn twist
- 61. What is a pile weave?
- 62. Discuss about bleaching and mercerization
- 63. Write a note on ecolabels
- 64. Write a note on rotary printing

(5x6=30 Marks)

Part D

(Essay Questions)

Answer any two Questions. Each question carries 10 marks.

- 65. Explain the classification of fibres according to their source
- 66. Write in details about the different finishes used on textile
- 67. Discuss about fancy weave
- 68. Explain in detail about printing

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FIFTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS5 D02 – INTERIOR DECORATION (OPEN COURSE)

Time: 2 hours

Maximum marks: 40

Part A

Answer all questions. Each question carries one mark.

1. . Purple is the compliment of
2. is a Japanese flower arrangement
3. Pink is theof the red colour
4. lines can create the effect of dignity and formality in interior
5. Blue is the shade of

(5x1=5 Marks)

Part B

Answer all questions. Each question carries 2 marks

6. Explain Japanese arrangement.
7. What is intermediate colour?
8. Functional accessories
9. What is monochromatic colour scheme?
10. What are decorative accessories?

(5x2=10 Marks)

Part C

Answer any Three. . Each question carries 5 marks

11. Explain the type of window treatment?
12. What are the material used for flower arrangement?
13. Explain rhythm and harmony
14. Explain formal and informal balance
15. Explain psychological impact of blue colour?

(5x3=15 Marks)

Part D (essay questions)

Answer any one Question. Each question carries 10 marks.

16. Explain flower arrangement under the following heading
a)Types b) Materials used c) Mass arrangement
17. Explain colours with the help of Prang's colour wheel?
18. Illustrate the different types of kitchen arrangement and layout

(10 x1=10 Marks)

Model Question Paper
CALICUT UNIVERSITY
SIXTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS6 B09 - DIETETICS

Time : 3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 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 cholesterol

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions.

Each question carries 2 marks.

11. What is TPN?
12. What is GTT?
13. What is keraomalacia?
14. What are the aetiological factors of type II diabetes?
15. State on osmotic diarrhoea
16. What is DASH?
17. Classify BMI.
18. Write on carcinogens
19. What are hypocholesterolemic agents?
20. What are the metabolic changes of fever?
21. What are the preventive measures for constipation?

22. Agents responsible for liver disease

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph

Each question carries 6 marks

23. Explain dietary management of cirrhosis
24. Plan a days diet for a person suffering from hypertension and discuss.
25. Explain the role of fat in the cause of atherosclerosis
26. Describe the type of diet advised for a preschooler child suffering from PEM
27. Explain the dietary management for nephritis.
28. Elaborate the process of cancer cell formation
29. What is enteral nutrition? What are the conditions in which enteral nutrition is suggested?
30. Write any five code of ethics for a dietician

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

31. Explain symptoms and dietary management of peptic ulcer
32. Explain the symptoms, types and complications of diabetes mellitus
33. Elaborate on causes, complications and dietary management of obesity
34. 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
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS6 B10 –FABRIC CARE AND APPAREL DESIGNING

Time : Three Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

1. Give the name of any one stain removal agent.
2. Name one oxidizing Bleaching agent
3. Cause of temporary hardness
4. The measurement taken from side waist to center waist
5. The part of a sewing machine which help to move the fabric while stitching
6. Tool used for cutting garment
7. Name one Stiffening agent
8. Name one traditional embroidery of Bengal
9. Javalee water is an example of which bleach?
10. Name one traditional textiles of India

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions. Each question carries 2 marks.

11. Explain the causes of permanent hardness,
12. Define fashion cycle
13. Why does thread break during sewing?
14. What kind of clothes will you select for a very thin figure?
15. What are the different stages of fashion cycle?
16. What is visual merchandising?
17. What is Phulkari?
18. What is the importance of correcting stitch tension?
19. What are the basic requirement of sewing machine?

20. Write a note on bleaches
21. Four type of figure
22. Explain soft water

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph. Each question carries 6 marks

23. What are the principles used during laundering of cotton fabric?
24. What is detergent?
25. What are stiffening agent? How it is applied in fabric?
26. How can lipstick stain be removed from the cotton fabric?
27. How will launder a woolen sweater?
28. What are optical brighters?
29. write a note on tools used in sewing
30. what are the steps in fabric before cutting?

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions. Each question carries 10 marks.

31. How will you select clothing for a following figure? Illustrate
(a) A short figure (b) Tall and stout figure (c) A plump figure
32. Write a note on:
(a) Kantha of Bnegal (b) Phulkari of Punjab (c) kalamkari
33. Describe how following stains can be removed
(a) Blood stain (b) coffee stain (c) iron rust (d) mildew
34. Explain the laundering and storing principles for wool and rayon

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
SIXTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
CORE COURSE- FAMILY AND COMMUNITY SCIENCE
FCS6 B11 –CONCEPTS IN FAMILY RELATION

Time : 3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word/ sentence.

Each question carries 1 mark.

- 1 Basic unit of society.
- 2 The legal marriage age of girl and boy in India
- 3 When a male marries more than one female.
- 4 Willful leaving of mate
- 5 Name one type of permanent family planning method
- 6 One man one wife in marriage
- 7 The ability to perceive the feeling of others
- 8 Legal dissolution of marriage
- 9 A family in which the authority rests in women
- 10 Functionally inadequate home

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions. Each question carries 2 marks.

- 11 Define family
- 12 Define marriage
- 13 Stages of family cycle
- 14 Alcoholism
- 15 Courtship
- 16 Extended family
- 17 Contraception
- 18 Infidelity
- 19 Family planning

- 20 Single parent family
- 21 Polyandry
- 22 Dowry prohibition act

(10x2=20 Marks)

Part C

Answer any five questions in a paragraph. Each question carries 6 marks

- 23 Differentiate between desertion and divorce?
- 24 comment on contemporary issues in family life
- 25 What are the major objectives of marriage?
- 26 Discuss the merits and demerits of nuclear family
- 27 Give your views on mate selection
- 28 Enumerate the functions of marriage
- 29 Reasons for singlehood
- 30 Explain briefly the different types of families

(5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions. Each question carries 10 marks.

- 31 Enumerate the major functions of family
- 32 Explain different types of deviant sexual behaviors
- 33 Explain the different stages in family life cycle with example
- 34 Explain the various critical family situations that occur in the family

(2x10=20 Marks)

Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B Sc DEGREE EXAMINATION

(CUCBCSS-UG)

CORE COURSE- FAMILY AND COMMUNITY SCIENCE

FCS6 B12 E2- QUANTITY FOOD PREPARATION TECHNIQUES (ELECTIVE)

Time:3 Hours

Maximum Marks: 80

Part A

Answer all questions in one word.

Each question carries 1 mark.

1. Name the caters there preparation and Service of food is in the same place
2. Name the menu which is Same in all days
3. ----- is the list of all records created/received and maintained by an organization
4. Temperature for Refrigerator storage is -----
5. Expand FPO
6. ----- is otherwise known as Pay roll cost
7. ----- is the repeated testing of recipe
8. Cafeteria is an example for ----- type of food service
9. -----caters provide only food service
10. Expand HACCP

(10x1=10 Marks)

Part B

Short answer questions.

Answer any ten questions.

Each question carries 2 marks.

11. Explain transport catering
12. Write on menu presentation
13. Give a note on Purchase order
14. Write about dry storage
15. List out portion control equipments
16. List out Objectives of food production
17. Give a note on Agmark
18. What is vending?
19. What is over head cost?
20. Explain delivery procedure

21. Give a short note on mode of purchase
22. What is cyclic menus? (10x2=20 Marks)

Part C

Answer any five questions in a paragraph

Each question carries 6 marks

23. Give a note on Catering segments
24. Explain the difference between A la carte and Table d' hote menu
25. Detail the different methods of food purchasing
26. Explain different types of cold storage method
27. Give a note on methods of food production
28. Explain the factors responsible for losses in food cost
29. Explain the behavior of food cost
30. Explain different types of Hotels (5x6=30 Marks)

Part D (Essay Questions)

Answer any two Questions.

Each question carries 10 marks.

31. Explain Menu under the following headings
a) Factors affecting menu planning b) Menu Pricing
32. Elaborate the styles of service
33. Explain steps in budgeting and BEA
34. Define standardization and explain its steps (2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FOURTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND
NUTRITION
FCS1 C01 - FOOD SCIENCE

Time : 3 Hours

Maximum Marks: 64 Marks

Part A

*Answer **all** questions in one word/ sentence.*

Each question carries 1 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 (10x1=10 Marks)

Part B (Short answer questions)

*Answer any **seven** questions.*

Each question carries 2 marks.

11. Define poaching . bring out the advantages of it
12. Give advantages of pressure cooking
13. What is fermentation?

14. Write a short note on tyrosine inhibitors
15. Define caramalisation
16. Explain food pyramid
17. Explain nutritional significance of Fish
18. What is the principle of osmosis
19. What is meant by EFA
20. What is rigor mortis

(7x2=14 Marks)

Part C (Paragraph question)

*Answer any **four** questions*

Each question carries 5 marks

21. Give a short note on rancidity
22. Explain the structure of a cereal grain with diagram
23. Write a note on germination
24. Explain functions of food
25. Explain Types of browning
26. Explain Antinutritional Factors present in Pulses

(4x5=20 Marks)

Part D (Essay Questions)

*Answer any **two** Questions.*

Each question carries 10 marks.

27. Different methods of food preservation
28. Draw the structure of an egg and its nutritional significance
29. Explain adulteration. Explain any five tests to find out adulterants in food
30. Write an essay on different methods of cooking

(2x10=20 Marks)

MODEL QUESTION PAPER
CALICUT UNIVERSITY
SECOND SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND
NUTRITION

FCS2 C02 - FUNDAMENTALS OF NUTRITION

Time: 3 Hours

Maximum Marks: 64 Marks

Part A

*Answer **all** questions in one word/ sentence.*

Each question carries 1 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

(10x1=10 Marks)

Part B (Short Answer Questions)

*Answer any **seven** questions.*

Each question carries 2 marks.

11. Define RDA
12. Differentiate PUFA & MUFA
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?
20. Mutual supplementation

(7x2=14 Marks)

Part C (Paragraph Question)

*Answer any **four** questions*

Each question carries 5 marks

21. What is malnutrition
22. Give account on the clinical symptoms of iron deficiency
23. Explain functions of Vitamin C
24. List the functions of fat soluble vitamins
25. Give an account on thiamine deficiency
26. Classification of carbohydrates

(4x5=20 Marks)

Part D (Essay Questions)

*Answer any **two** Questions.*

Each question carries 10 marks.

27. What is BMR ? Give an account of the factors affecting BMR
28. Briefly explain method of water balance in our body
29. Describe various method to assess the nutritional status of the community
30. Give an account on the role of micronutrients in human body

(2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
THIRD SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)
COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND
NUTRTION
FCS3 C03 – NUTRITION THROUGH LIFE CYCLE

Time : 3Hours

Maximum Marks: 64 Marks

Part A

*Answer **all** questions in one word/ sentence.*

Each question carries 1 mark.

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-----

(10x1=10 Marks)

Part B (Short Answer Questions)

*Answer any **seven** questions.*

Each question carries 2 marks.

11. What is the menu planning?
12. What is IDD?

13. Give the RDA for male computer professional
14. Anorexia nervosa
15. Balanced diet
16. What are lactagogue? Give example
17. Define nutritional assessment
18. Define weaning
19. Why dental carries is common among school children?
20. What is carbohydrate loading? (7x2=14Marks)

Part C (Paragraph Question)

*Answer any **four** questions*

Each question carries 5 marks

21. What are important physiological changes during pregnancy?
22. What are the objectives of school lunch programme?
23. What is complementary feeding?
24. Explain the process of ageing?
25. Give nutritional requirements in adults
26. What are the immunological advantages of breast milk? (4x5=20 Marks)

Part D (Essay Questions)

*Answer any **two** Questions.*

Each question carries 10 marks.

27. Discuss the general dietary problems and complications during pregnancy
28. Bring out the nutritional requirements and nutritional problems of teenagers.
29. Explain the reasons for increased nutrient requirement in lactation.
30. Discuss in detail the factors affecting menu planning (2x10=20 Marks)

Model Question Paper
CALICUT UNIVERSITY
FOURTH SEMESTER B Sc DEGREE EXAMINATION
(CUCBCSS-UG)

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND
NUTRITION

FCS4 C04 - DIETETICS

Time : 3 Hours

Maximum Marks: 64 Marks

Part A

*Answer **all** questions in one word/ sentence.*

Each question carries 1 mark.

1. Accumulation of fluid in abdomen is called -----
 2. Kempener's 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. Paresthesia is a symptom of -----
 10. ----- is known as good cholesterol
- (10x1=10 Marks)

Part B (Short Answer Questions)

*Answer any **seven** questions.*

Each question carries 2 marks.

11. What is TPN?
12. What is GTT?
13. What is keratomalacia?

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 (7x2=14 Marks)

Part C (Paragraph Question)

*Answer any **four** questions*

Each question carries 5 marks

21. Explain dietary management of cirrhosis
22. Explain the role of fat in the cause of atherosclerosis
23. Explain the dietary management for nephritis.
24. Elaborate the process of cancer cell formation
25. What is enteral nutrition? What are the conditions in which enteral nutrition is suggested?
26. Write any five code of ethics for a dietician

(4x5 =20 Marks)

Part D (Essay Questions)

*Answer any **two** Questions.*

Each question carries 10 marks.

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