



## UNIVERSITY OF CALICUT

**Abstract**

General and Academic - Faculty of Science - Syllabus of BSc Family & Community Science Programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards - Corrected - Orders Issued

**G & A - IV - J**

U.O.No. 1744/2020/Admn

Dated, Calicut University.P.O, 11.02.2020

- Read:-*
1. U.O.No. 4368/2019/Admn Dated 23.03.2019
  2. U.O.No. 10462/2019/Admn Dated 06.08.2019
  3. UO Note No. 96283/EX-I-ASST-2/2019/PB Dated 25.12.2019
  4. U.O.No. 18084/2019/Admn Dated 28.12.2019
  5. Corrected syllabus submitted by the former Chairman, Board of Studies in Home Science.
  6. Remarks of the Dean, Faculty of Science

ORDER

The Regulations for Choice Based Credit and Semester System for Under Graduate (UG) Curriculum- 2019 (CBCSS UG Regulations 2019) for all UG Programmes under CBCSS-Regular and SDE/Private Registration w.e.f. 2019 admissions has been implemented vide paper read first above and the same has been modified vide paper read fourth above. The Scheme and Syllabus of BSc Family & Community Science programme under CBCSS UG Regulations 2019 with effect from 2019 Admission onwards has been implemented ,vide paper read second above.

The Pareeksha Bhavan pointed out some anomalies in the syllabus of BSc Family & Community Science w.e.f 2019 admns onwards, vide paper read third above and the former Chairman, Board of Studies in Home Science submitted the corrected syllbus vide paper read fifth above, after correcting the anomalies as detailed below.

**Corrections made in the syllabus of BSc Family & Community Science w.e.f 2019 admn. onwards.**

1. The model question paper given in the syllabus of BSc Family & Community Science is changed in accordance with pattern provided in the syllabus.

2. Practical-External mark distribution of FCS6B06(P)-Practical III-Diet in Health in the page No.13 and FCS6B06(P)-Practical-VI Dietetics in the page No.14 are combined and Modified as follows:

FCS6B06 (P) - PRACTICAL III -DIET IN HEALTH

FCS6B06 (P) PRACTICAL- VI DIETETICS

| Sl . No | Criteria                     | Mark      |
|---------|------------------------------|-----------|
| 1       | Presentation and taste       | 20        |
| 2       | Serving and Presentation     | 10        |
| 3       | Time and Cleanliness         | 5         |
| 4       | Principle                    | 10        |
| 5       | Menu Plan                    | 15        |
| 6       | Calculation                  | 10        |
| 7       | RDA (8 nutrients with units) | 10        |
|         | <b>TOTAL</b>                 | <b>80</b> |

3. Practical-External mark distribution of FCS6B10(P)-Practical V-Textile Science & FCS6B10(P) Practical-VII Fabric Care and Apparel Designing in the Page No.14 are combined and Modified as follows:

FCS6B10 (P) - PRACTICAL V TEXTILE SCIENCE

FCS6B10 (P) PRACTICAL VII FABRIC CARE AND APPAREL DESIGNING

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

4.PRACTICAL-FCS4C04(P)-Dietetics : internal marks distribution and external mark distributions discribed in the page No 17 & 18 are changed into 20 & 80 respectively.

The Dean, Faculty of Science has approved the corrected syllabus of BSc Family & Community Science programme in tune with the new CBCSS UG Regulations with effect from 2019 Admission onwards, vide paper read sixth above.

Under these circumstances , considering the urgency, the Vice Chancellor has accorded sanction to implement the corrected scheme and syllabus of BSc Family & Community Science Programme in accordance with the new CBCSS UG Regulations 2019, in the University with effect from 2019 Admission onwards, subject to ratification by the Academic Council.

The corrected Scheme and Syllabus of BSc Family & Community Science Programme in accordance with CBCSS UG Regulations 2019 ,is therefore implemented with effect from 2019 admn.onwards. U.O No. 10462/2019/Admn Dated 06.08.2019 stands modified to this extent.

Orders are issued accordingly. (Corrected Syllabus appended).

Biju George K

Assistant Registrar

To

The Principals of all Affiliated Colleges

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**B.Sc. FAMILY AND  
COMMUNITY  
SCIENCE  
(2019 Admission Onwards)**

**SYLLABUS FOR B.ScFAMILY AND COMMUNITY SCIENCE  
PROGRAMME (CORE COURSES) (2019 Admission Onwards)**

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

**B ScFAMILY AND COMMUNITY SCIENCE COURSE STRUCTURE**

**Credit Distribution**

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

\*Practical

\*\*Project

## Method of Indirect Grading

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

### Ten point Indirect Grading System

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

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

The Semester Grade Point Average can be calculated as

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

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

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.

$$\% \text{ of marks of a semester} = (SGPA/10) \times 100$$

The SGPA is corrected to three decimal points and the percentage of marks should be approximated to two decimal points.

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

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

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

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

CGPA of core courses=Total credit points obtained for Core Course / Total credits acquired for Core Courses

## B Sc FAMILY AND COMMUNITY SCIENCE

### CORE COURSE STRUCTURE UNDER CBCSS (2019 Admission Onwards)

| Semester | Code No.   | Course Title   | Hrs/<br>Week | Credit | Marks       |             |       |
|----------|------------|--|--------------|--------|-------------|-------------|-------|
|          |            |  |              |        | EE<br>(80%) | IE<br>(20%) | Total |
| I        | FCS1BO1    | Fundamentals of Nutrition                                | 4            | 3      | 60          | 15          | 75    |
| II       | FCS2BO2    | Human Development  | 4            | 3      | 60          | 15          | 75    |
| III      | FCS3BO3    | Research Methodology and<br>Bio Informatics              | 4            | 2      | 60          | 15          | 75    |
|          | FCS3BO3(P) | Practical I- Research<br>Methodology and Bio Informatics | 2            | -      | -           | -           | -     |
| IV       | FCS4BO4    | Food Science   | 3            | 3      | 60          | 15          | 75    |
|          | FCS4BO4(P) | Practical II –Food Science                               | 2            | 4*     | 80          | 20          | 100   |
| V        | FCS5BO5    | Human Physiology and<br>Microbiology                     | 3            | 3      | 60          | 15          | 75    |
|          | FCS5BO6    | Diet in Health   | 3            | 4      | 80          | 20          | 100   |
|          |            | Practical III – Diet in Health                           | 4            | **     | 60          | 15          | 75    |
|          | FCS5BO7    | Family Resource Management                               | 2            | 4      | 80          | 20          | 100   |
|          |            | Practical IV- Family Resource<br>Management              | 2            | **     |             |             |       |

|                    |  |   |   |     |              |           |              |
|--------------------|--|---|---|-----|--------------|-----------|--------------|
|                    | FCS5BO8                                  | Textile Science   | 2 | 4   | 80           | 20        | 100          |
|                    |  | Practical V- Textile Science  | 4 | **  | 60           | 15        | 75           |
|                    |  | Project   | 2 | **  | 60           | 15        | 75           |
| <b>VI</b>          | FCS6BO9                                  | Dietetics   | 5 | 4   | 80           | 20        | 100          |
|                    | FCS6BO6(P)                               | Practical III – Diet in Health<br>&Practical VI- Dietetics                            | 4 | 4** | 80           | 20        | 100          |
|                    | FCS6B07(P)                               | Practical IV- Family Resource<br>Management   |   | 2** | 60           | 15        | 75           |
|                    | FCS6B10                                  | Fabric Care and Apparel<br>Designing  | 5 | 4   | 80           | 20        | 100          |
|                    | FCS6B10(P)                               | Practical V- Textile Science &<br>Practical VII- Fabric Care and<br>Apparel Designing | 4 | 4** | 80           | 20        | 100          |
|                    | FCS6BPR                                  | Project   |   | 2** |              |           |              |
|                    | FCS6B11                                  | Concepts in Family Relation   | 4 | 2   | 60           | 15        | 75           |
|                    | FCS6B12(E1)                              | <b>Elective Courses***</b><br>Entrepreneurship Management                             | 3 | 3   | 60           | 15        | 75           |
| FCS6B12(E2)        | Quantity Food Preparation<br>Techniques  |   |   |     |              |           |              |
| FCS6B12(E3)        | Extension Education and<br>Communication |   |   |     |              |           |              |
| <b>OPEN COURSE</b> |  |   |   |     |              |           |              |
|                    |  |   |   |     | <b>Marks</b> |           |              |
|                    |  |   |   |     | <b>EE</b>    | <b>IE</b> | <b>Total</b> |



|                           |                                |          |           |              |           |              |
|---------------------------|--------------------------------|----------|-----------|--------------|-----------|--------------|
| FCS5D01                   | Food Science and Basic Cookery | <b>3</b> | <b>3</b>  | <b>60</b>    | <b>15</b> | <b>75</b>    |
| FCS5D02                   | Interior Decoration            |          |           |              |           |              |
| FCS5D03                   | Textiles and Apparel Designing |          |           |              |           |              |
| <b>GRAND TOTAL</b>        |                                |          | <b>58</b> |              |           | <b>1700</b>  |
| <b>AUDIT COURSES*****</b> |                                |          |           |              |           |              |
|                           |                                |          |           | <b>Marks</b> |           |              |
|                           |                                |          |           | <b>EE</b>    | <b>IE</b> | <b>Total</b> |
| <b>I</b>                  | Environment Science            |          | <b>4</b>  | <b>80</b>    | <b>20</b> | <b>100</b>   |
| <b>II</b>                 | Disaster management            |          | <b>4</b>  | <b>80</b>    | <b>20</b> | <b>100</b>   |
| <b>III</b>                | Intellectual Property Rights   |          | <b>4</b>  | <b>80</b>    | <b>20</b> | <b>100</b>   |
| <b>IV</b>                 | Gerontology                    |          | <b>4</b>  | <b>80</b>    | <b>20</b> | <b>100</b>   |

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

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

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

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

**COMPLEMENTARY COURSES – FOOD AND NUTRITION**

| SEM         | COURSE     | COURSE TITLE                                 | INSTRUCTION/ WEEK |   | CREDIT | EXAM HRS | SCHEME OF EXAMINATION |         | TOTAL MARKS |
|-------------|------------|--|-------------------|---|--------|----------|-----------------------|---------|-------------|
|             |            |  | T                 | P |        |          | EE MARKS              | IE MARK |             |
| I           | FCS1C01    | Food Science                                 | 2                 |   | 2      | 2        | 60                    | 15      | 75          |
|             | FCS1C01(P) | Practical I- Food Science                    |                   | 2 | -      | -        | -                     | -       | -           |
| II          | FCS2C02    | Fundamentals of Nutrition                    | 2                 |   | 2      | 2        | 60                    | 15      | 75          |
|             | FCS2C02(P) | Practical II- Fundamentals of Nutrition      |                   | 2 | -      | -        | -                     | -       | -           |
| III         | FCS3C03    | Nutrition Through Life Cycle                 | 2                 |   | 2      | 2        | 60                    | 15      | 75          |
|             | FCS3C03(P) | Practical III - Nutrition Through Life Cycle |                   | 2 | -      | -        | -                     | -       | -           |
| IV          | FCS4C04    | Dietetics                                    | 2                 |   | 2      | 2        | 60                    | 15      | 75          |
|             | FCS4C04(P) | Practical IV- Dietetics                      |                   | 3 | 4      | 2.5      | 80                    | 20      | 100         |
| Grand Total |            |  |                   |   | 12     |          |                       |         | 400         |

## EVALUATION

### A) THEORY PAPERS

#### QUESTION PAPER MARK PATTERN FOR CORE COURSES

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

External : 80marks , Internal : 20 mark

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

External : 60marks , Internal : 15 mark

3. Project work  $60+15 = 75$

#### Distribution of marks and type questions.

##### Internal marks distribution for papers with 4/5 credits

| Sl.No        | Criteria     | Marks     |
|--------------|--------------|-----------|
| 1            | Attendance   | 4         |
| 2            | Assignments  | 4         |
| 3            | Seminar      | 4         |
| 4            | Test paper 1 | 8         |
| <b>Total</b> |              | <b>20</b> |

##### Internal marks distribution for papers with 2/3 credits

| Sl.No        | Criteria     | Marks     |
|--------------|--------------|-----------|
| 1            | Attendance   | 3         |
| 2            | Assignments  | 3         |
| 3            | Seminar      | 3         |
| 4            | Test paper 1 | 6         |
| <b>Total</b> |              | <b>15</b> |

**External marks distribution for papers with 4/5 credits**

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

**External marks distribution for papers with 2/3 credits**

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

**B) PRACTICAL****Practical internal marks distribution**

| <b>Sl.No</b> | <b>Criteria</b> | <b>Marks</b> |
|--------------|-----------------|--------------|
| 1            | Attendance      | 4            |
| 2            | Performance     | 4            |
| 3            | Record          | 12           |
| Total        |                 | 20           |

**Practical internal mark distribution**

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

**PRACTICAL -EXTERNAL MARKS DISTRIBUTION****FCS4B04 (P) - PRACTICAL II - FOOD SCIENCE**

| Sl . No   | Criteria                     | Mark      |
|-----------|------------------------------|-----------|
| <b>I</b>  | <b>QUALITATIVE TESTS</b>     |           |
|           | <b>TEST FOR CARBOHYDRATE</b> |           |
| 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         |
|           | <b>TOTAL</b>                 | <b>30</b> |
| OR        |                              |           |
|           | <b>TEST FOR PROTEINS</b>     |           |
| I         | Coagulation                  | 5         |
| Ii        | Molish's test                | 5         |
| Iii       | Biuret test                  | 5         |
| Iv        | Millions test                | 5         |
| V         | Xanthoprotein test           | 5         |
| Viii      | Result                       | 5         |
|           | <b>TOTAL</b>                 | <b>30</b> |
| <b>II</b> | <b>QUANTITATIVE TESTS</b>    |           |

|     |              |           |
|-----|--------------|-----------|
| I   | Principle    | 5         |
| ii  | Procedure    | 8         |
| iii | Titre value  | 7         |
| iv  | Steps        | 7         |
| V   | Result       | 3         |
|     | <b>TOTAL</b> | <b>30</b> |
| III | Record       | 20        |
|     | <b>TOTAL</b> | <b>80</b> |

**FCS6B07(P) PRACTICAL IV FAMILY RESOURCE MANAGEMENT**

| Sl . No | Criteria     | Mark      |
|---------|--------------|-----------|
| 1       | Presentation | 10        |
| 2       | Viva         | 10        |
| 3       | Handicraft   | 20        |
| 4       | Record       | 20        |
|         | <b>TOTAL</b> | <b>60</b> |

**FCS6B06 (P) - PRACTICAL III -DIET IN HEALTH**

**FCS6B06 (P) PRACTICAL- VI DIETETICS**

| Sl . No | Criteria                     | Mark      |
|---------|------------------------------|-----------|
| 1       | Presentation and taste       | 20        |
| 2       | Serving and Presentation     | 10        |
| 3       | Time and Cleanliness         | 5         |
| 4       | Principle                    | 10        |
| 5       | Menu Plan                    | 15        |
| 6       | Calculation                  | 10        |
| 7       | RDA (8 nutrients with units) | 10        |
|         | <b>TOTAL</b>                 | <b>80</b> |

**FCS6B10 (P) - PRACTICAL V TEXTILE SCIENCE**

**FCS6B10 (P) PRACTICAL VII FABRIC CARE AND APPAREL DESIGNING**

| <b>Sl. No</b> | <b>Criteria</b>         | <b>Mark</b> |
|---------------|-------------------------|-------------|
| 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          |
| <b>TOTAL</b>  |                         | <b>80</b>   |

**PROJECT**

**Project evaluation (Internal Marks)**

| <b>Sl.No</b> | <b>Criteria</b>                 | <b>Marks</b> |
|--------------|---------------------------------|--------------|
| 1            | Originality                     | 3            |
| 2            | Methodology                     | 3            |
| 3            | Scheme & organization of report | 4.5          |
| 4            | Viva voce                       | 4.5          |
| <b>Total</b> |                                 | <b>15</b>    |



**Project evaluation (External Marks)**

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

## COMPLEMENTARY COURSES – FOOD AND NUTRITION

### A) Theory Evaluation Scheme: Every Semester

75 Marks for each paper

#### QUESTION PAPER PATTERN FOR COMPLEMENTARY

For a paper total marks is  $60 + 15 = 75$

External : 60marks, Internal: 15 marks

#### 1) Internal Evaluation

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

**Table 1: Components of Evaluation**

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

**Table 2: Percentage of Attendance and Eligible Marks**

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

## 2) External Evaluation

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

**Table 1: Pattern of Question Papers**

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

## B) PRACTICAL - FCS4C04(P)- DIETETICS

**Table 1: internal marks Distribution**

| Sl. No.     | Criteria                 | Marks |
|-------------|--------------------------|-------|
| 1           | Attendance               | 3     |
| 2           | Performance              | 3     |
| 3           | Record                   | 6     |
| 4           | Internal Examination (2) | 4+4   |
| Total Marks |                          | 20    |

**Table 2: External Mark Distribution**

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

# CORE COURSES

**SEMESTER I**  
**FCS1 B01 FUNDAMENTALS OF NUTRITION**

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

## SEMESTER II

### FCS2 B02 HUMAN DEVELOPMENT

#### *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.

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

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

#### *Unit V Adolescence(12 hrs)*

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

#### *Unit VI Adulthood(10 hrs)*

Characteristics and problems.

***Unit VII Pre- school education***(10 hrs)

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

***Unit VIII Play***(4 hrs)

Theories, values and types.

***Unit IX Juvenile delinquency***(2 hrs)

Causes and rehabilitation

***Unit X Exceptional children***(10hrs)

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



## SEMESTER III

### FCS 3 B03 - RESEARCH METHODOLOGY AND BIOINFORMATICS

#### 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,2ndedition, Vikas publishing house ltd., New Delhi

## PART B BIOINFORMATICS

### Objective

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

### Unit I – Introduction to bioinformatics( 2hrs)

Definition, Branches, Scope- , name of software in bioinformatics. Bioinformatics centers nIndia  
Application of bioinformatics in various 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, NewYork
3. Khan I A & A Khayum. 2002, Fundamentals of Bioinformatics, Ukkkaz Publications, Hyderabad
4. Less A M. 2002. Introduction to Bioinformatics. Oxford University press. Oxford

## **SEMESTER III**

### **FCS3B03(P) PRACTICAL 1 -RESEARCH METHODOLOGY AND BIOINFORMATICS**

1. Prepare a research tool – questionnaire, interview schedule
2. Conduct a community survey on relevant topics of Home Science.
3. Prepare a research proposal
4. Observational study on developmental pattern of preschool children
5. Conduct a nutritional assessment survey among college students
6. Conduct a community awareness programme

## SEMESTER IV

### FCS4B04 FOOD SCIENCE

#### 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** Caramaliation, hydrolysis, crystallization and stages of sugar cookery

### **Unit III Food preservation( 6hrs)**

Principles and methods

### **Unit IV Food adulteration(4 hrs)**

Common adulterants and simple Test for detection of Adulterants

### **References**

1. Norman, N. Potter and Hotchkiss, J.H, Food Science, CBSE publishers and Distributers, New Delhi, 1996.
2. Mudambi, S.R. and Rao , S.M. Food Science, New Age International (P) ltd. Banglore, 1989.
3. Begum, M.P., A Text Book of Food, Nutrition and Dietetics, sterling Publishers Pvt. Ltd., New Delhi, 2001.
4. Srilakshmi, B., Food Science, New Age International Pvt. Ltd., New Delhi.
5. Mudambi, S.R. and Rajagopal M.V., Fundamentals of Food & Nutrition, New Age International (P) Ltd., New Delhi, 1990.
6. Swaminathan, M. Handbook of Food and Nutrition, The Banglore Printing and Publishing Co., Ltd., Banglore, 20

## SEMESTER IV

### FCS4B04(P)PRACTICAL II FOOD SCIENCE

#### *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.*

##### **Qualitative tests for**

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

##### **ii .Quantitative tests**

- a. Vitamin C in lime juice (dye method)
- b. Estimation of reducing sugar by Benedict's method
- c. Calcium in food – demonstration

## SEMESTER V

### FCS5B05 HUMAN PHYSIOLOGY AND MICROBIOLOGY

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

## **PART –II MICROBIOLOGY**

### **Objective:**

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

### **Unit I Introduction ( 6 hrs.)**

Importance of the study of microbiology and classification of microorganisms.

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

### **Unit II Yeasts (2 hrs.)**

Morphology and economic importance

### **Unit III Virus and Viral Diseases(4 hrs.)**

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

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

Sterilization and disinfection



***Unit V Infection (2 hrs.)***

Sources and methods of transmission.

***Unit VI Immunity (2 hrs.)***

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

***Unit VII Food Microbiology ( 3 hrs.)***

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

***References:***

1. Anna .K.Joshua, Microbiology, Popular Book Depot, Madras 15.
2. Barnes and Noble, Bacteriology –Principles and practices.
3. Aguide to Microbiology and Bacteriology for medical student's .Prakashan Kendra, Lucknow 22/6007
4. Sullia and Shantharam, General Microbiology .Oxford and IBH Publishing.Co.Pvt.Ltd. New Delhi.
5. Kumar H.D. and Kumar S., Modern concepts of Microbiology, Vikas Publishing House Pvt.Ltd.
6. Satish Gupta. M.D,The short Text Book of Medical Microbiology. Jaypee Brothers pub. New Delhi.
7. Sharma P.D., Microbiology, Rastogi pub. Meerut 250002

## **SEMESTER V**

### **FCS5B06 DIET IN HEALTH**

#### **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**

### **PRACTICAL III-DIET IN HEALTH**

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

Pregnancy

Lactation

Infancy

Preschool age

School Age

Adolescents

Adulthood

Old age

## SEMESTER V

### FCS5B07 FAMILY RESOURCE MANAGEMENT

#### *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.Lippincottcompany, Newyork, 1970
7. Ruth.F.Shewood, homes today and tomorrow, 1972, Chas.A.Benettcompany Illinois
8. Good house keeping guide to successful homemaking compiled by the editors of housekeeping 1956,Harper and Brother Publisher, Newyork.
9. Agarwal, K.C. Enviornmental Biology, Nidipublication.Ltd, Bikaner,2001.
- 10 Miller T.G., Enviornment science, Wardsworthpublicationco.TB.

## **SEMESTER V**

### **FCS6B07(P)PRACTICL IV -FAMILY RESOURCE MANAGEMENT**

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

#### ***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-(5hrs)***

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

#### ***Unit III Yarn Construction(5hrs)***

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

#### ***Unit IV Fabric Construction(5hrs)***

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

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

Fabric count and analysis, Blend and Mixtures

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



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

### **Unit VI Finishes (5hrs)**

Definition, classification, importance, types of finishes

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

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

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

### **Unit VII Dyeing and Printing(6hrs)**

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

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

### **Unit VIII Environment and Textile Industry-(2hrs)**

Environmental impacts related to cultivation, processing and uses.

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

Eco friendly practices and use of eco labels.

### **References**

1. Marjory L. Joseph, Introductory Textile Science, Holt Rinehart and Winston, New York.
2. SusheelaDantyagi, Fundamentals of Textiles and their care, Orient Longmans, Madras
3. Hess, Textile fibres and their Uses, Oxford IBH Publishing Company, New Delhi.
4. Porter Corbman, Fibre to Fabric, McGraw Hill Book Company, New York.
5. www. fiber2fashion.com

## **SEMESTER V**

### **PRATICALS V TEXTILE SCIENCE**

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**

### **PROJECT**

#### **Objectives**

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

#### **Content**

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

## SEMESTER VI

### FCS6B09 DIETETICS

#### **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

### FCS6B06 (P)-Practical III – Diet in Health & Practical VI- Dietetics

#### Unit I Deficiency Diseases

Plan and prepare diets for Deficiency Conditions.

- a. Iron deficiency anemia
- b. Kwashiorkor
- c. Night Blindness

#### Unit II Therapeutic Diets

Plan and prepare Diets for Disease Conditions

- a. Routine hospital diets
- b. Obesity
- c. Diabetes mellitus
- d. Typhoid
- e. Tuberculosis
- f. Peptic ulcer
- g. Constipation
- h. Cirrhosis
- i. Acute glomerulo nephritis
- j. Renal calculi
- k. Hypertension.
- l. Atherosclerosis

#### Unit III Visits to research institute / Dietary Department.

## SEMESTER VI

### FCS6B10 FABRIC CARE AND APPAREL DESIGNING

#### *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, Chambarumal, Chikankari, Kantha)

#### **Unit V Garment construction(10hrs)**

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

#### **Unit VI Fashion Elements(12hrs)**

Fashion cycle, Merchandising- role of a merchandiser

#### **Unit VII Study of human figure(12hrs)**

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

***References***

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



## **SEMESTER VI**

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

#### **PRACTICALS**

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

## SEMESTER VI

### FCS6B11 CONCEPTS IN FAMILY RELATION

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

# **ELECTIVE COURSES**

## SEMESTER VI

### FCS6B12(E1)- ENTREPRENEURSHIP MANAGEMENT (Elective)

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

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

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

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

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

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

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

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

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

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

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

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

***References***

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

## SEMESTER VI

### FCS6B12(E2)- QUANTITY FOOD PREPARATION TECHNIQUES

(Elective)

#### *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( 6hrs)*

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

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

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

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

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

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

Receiving - delivery methods, delivery procedure and receiving procedure.

Storage –types (dry storage and cold storage)

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

Standardization and portion control

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

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

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

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

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

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

***Related Experience:***

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

**REFERENCES:**

1. MohiniSethi and Surjeet, M. Malhan, “Catering Management an Integrated approach”, Wiley Eastern Limited, Mumbai, II edition reprinted, 1996.
2. Marian C. Spears; Food Service Organization; III Edition, Prentice Hall Inc., usa.1995.
3. West and Woods, Introduction to Food Service, Macmillan Publishing Company, New York, 7th edition, 1994.
4. Odder Cesarani and David Fosket, Theory of Catering, Odder and Stoughton, London, xth edition,2003.
5. Odder Cesarani and David Fosket, Food and beverage service, Odder and Stoughton, London, ix t h edition, 2003.



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

### **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- mahilamandals, youth clubs, rural youth programmes-4-Hclubs, YFA

#### **3. Leadership**

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

#### **4. Programme planning in Extension**

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

#### **5. Rural Sociology**

Characteristics, comparison between rural and urban society, kudumbasree.

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

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

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

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

## **1. Communication**

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

## **2. Methods of approaching people**

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

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

**Group methods-** method demonstration, lecture, meetings, conference

**Mass methods -** bulletin, circular letters, exhibits and television

## **3. Audio-Visual Aids**

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

## **4. Home Science Extension Education**

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

## **References**

1. O.P.Dahama, O.P.Bhatnagar, Education and communication for Development, 2nd edition, Oxford and IBH publishing Co., Pvt.Ltd.New Delhi.
2. S.V.Supe. An Introduction to Extension Education, Oxford and IBH publishing Co., Pvt.Ltd.New Delhi.
3. A.Advivi Reddy, Extension Education, Sreelakshmi press, 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

### FCS5D01 FOOD SCIENCE AND BASIC COOKERY (OPEN COURSE)

#### *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

**UNIT 11**

***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 Distributors, New Delhi, 1996.
2. Mudambi, S.R. and Rao, S.M. Food Science, New Age International (P) ltd. Bangalore, 1989.
3. Begum, M.P., A Text Book of Food, Nutrition and Dietetics, sterling Publishers Pvt. Ltd., New Delhi, 2001.
4. Srilakshmi, B., Food Science, New Age International Pvt. Ltd., New Delhi.
5. Mudambi, S.R. and Rajagopal M.V., Fundamentals of Food & Nutrition, New Age International (P) Ltd., New Delhi, 1990.
6. Swaminathan, M. Handbook of Food and Nutrition, the Bangalore Printing and Publishing Co., Ltd., Bangalore, 2003.

## SEMESTER V

### FCS5D02 INTERIOR DECORATION (OPEN COURSE)

#### 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 today's home, Holt Rinehart Winston, New York
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, New York, 1970



## **SEMESTER V**

### **FCS5D03 TEXTILES AND APPAREL DESIGNING (OPEN COURSE)**

#### ***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, NeeruGarg, RenuSaini, Textbook of clothing and textiles, Kalyani publishers, Ludhiana.
3. Shailaja D Naik, Traditional Indian Textiles.
4. Essay M, Fashion Marketing, Blackwell Sciences Ltd., London.
5. Mary Mathews, Practical CI

# COMPLIMENTARY FOOD AND NUTRITION

## **SEMESTER I**

### **FCS1C01 FOOD SCIENCE**

#### ***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

### FCS1C01(P) –PRACTICAL I -FOOD SCIENCE

#### *I. Food preparation*

- i. Record the weight of 1 cup/ 1tbsp/ 1tsp of different types of food stuffs.
- ii. Record the ratio of raw to cooked volume of rice, rava and pulses.

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

#### *III. Food preservation – Jam, squash, pickles*

#### *IV. Test for detecting food adulteration*

## SEMESTER II

### FCS2C02 FUNDAMENTALS OF NUTRITION

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

**SEMESTER II**

**FCS2C02(P) –PRACTICAL II - FUNDAMENTALS OF NUTRITION**

***Unit I Food Analysis***

Qualitative tests for

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

***Unit II Quantitative tests***

- a. Vitamin C in lime juice (dye method)
- b. Estimation of reducing sugar by Benedict's method
- c. Calcium in food – demonstration

## SEMESTER III

### FCS3C03 - NUTRITION THROUGH LIFE CYCLE

#### *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 prophylaxisprogramme, anaemia prophylaxis programmes, goitre control programme, Important national and international agencies working in the field of nutrition- WHO, FAO, NIN, CFTRI

**References**

1. Antia.F.P, Clinical Dietetics and Nutrition, Oxford University Press, New Delhi, 1997, 4th edition.
2. Srilakshmi.B, Dietetics, New Age International Pvt. Ltd. Publishers, New Delhi, 1997.
3. Swaminathan.M, Principles of Nutrition and Dietetics

4. Subhangini Joshi, Nutrition and Dietetics
5. Gopalan.C, Ramasastri.B.V, Nutritive value of Indian Foods, Vol.I, NIN, ICMR, 1994.
6. Mahan.J.K, Arlin.M.T, Krause's Food Nutrition and Diet Therapy 8th edition, W.B Saunders Company, 2001.

### **SEMESTER III**

#### **FCS3C03(P) –PRACTICAL III - NUTRITION THROUGH LIFE CYCLE**

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

Weaning food

Preschool age

School Age

Adolescents

Adult

Pregnancy

Lactation

Old age

Weaning foods

Assess the nutritional status of the college students

## SEMESTER IV

### FCS4C04 DIETETICS

#### *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

### FCS4C04(P) – PRACTICAL IV - DIETETICS

#### *Unit I Deficiency Diseases*

Plan and prepare diets for Deficiency Conditions-

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

#### *Unit II Therapeutic Diets*

Plan and prepare Diets for diseased conditions-

Routine hospital diets

Obesity

Diabetes mellitus

Typhoid

Tuberculosis

Peptic ulcer

Constipation

Cirrhosis

Acute glomerulo nephritis

Renal calculi

Hypertension

Atherosclerosis

#### *Unit III Visits to research institute / Dietary Department.*

# MODEL QUESTION PAPER



MODEL QUESTION PAPER  
CALICUT UNIVERSITY  
FIRST SEMESTER B Sc DEGREE EXAMINATION  
(CBCSS-UG)  
CORE COURSE- FAMILY AND COMMUNITY SCIENCE  
FCS1BO1- FUNDAMENTALS OF NUTRITION

Time: 2 Hours

Maximum Marks: 60

**Part A**

Answer all questions. Each question carries 2 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
11. Define Reference Man
12. What is SDA of food

(Ceiling marks= 20)

**Part B**

Answer all questions. Each question carries 5 marks

13. List out all essential amino acids
14. Give a note on polysaccharides
15. Symptoms of Kwashiorkor
16. Explain the role of PUFA in human body
17. Define EFA. Mention the names.

18. What are the Factors affecting Calcium Absorption
19. What are goiterogenic substances

(Ceiling marks= 30)

**Part C**

Answer any one question

Each question carries 10 marks

20. Define BMR. Explain the factors affecting BMR.
21. Describe the metabolism of Carbohydrate.

(1x10=10 Marks)

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

Time: 2 Hours

Maximum marks: 60

**Part A**

Answer all questions

Each question carries 2 marks.

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. Medical care during pregnancy
11. Appearance of new born
12. Hemorrhoids

(Ceiling Marks = 20)

**Part B**

Answer all questions. Each question carries 5 marks

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

(Ceiling Marks = 30)

**Part C**

Answer any one Question. Each question carries 10 marks

20. 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.
21. Explain stages of pre-natal development

(1x10=10 marks)

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

Time: 2 Hours

Maximum Marks: 60

**Part A**

Answer all questions

Each question carries 2 marks.

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
11. Define applied research
12. What is meant by dependent variable

(Ceiling marks= 20)

**Part B**

Answer all questions.

Each question carries 5 marks.

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

(Ceiling Marks=30)

**Part C (Essay Questions)**

Answer any one Question.

Each question carries 10 marks.

20. Explain scope of bioinformatics in different fields

21. Define research. Explain the types of research

(1x10=10 Marks)

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

Time: 2 Hours

Maximum Marks: 60

**Part A**

Answer all questions

Each question carries 2 marks.

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 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 170<sup>0</sup>C sugar converts into -----
11. Write components of starch
12. Explain EFA

(Ceiling Marks=20)

**Part B**

Answer all questions.

Each question carries 5 marks.

13. Write components of starch
14. Explain EFA
15. Briefly explain Tenderization of meat
16. What are the different pigments present in vegetables and its effect on cooking
17. Explain Food groups
18. Define gelatinization
19. Explain food pyramid

(Ceiling Marks=30)

**Part C**

Answer any one Question.  
Each question carries 10 marks.

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

(1x10=10 Marks)



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

Time : 2 Hours

Maximum Marks: 60

**Part A**

Answer all questions

Each question carries 2 marks.

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 Succusentericus
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 -----
11. List out the functions of Vagina
12. Give a note on salivary gland

(Ceiling Marks = 20)

**Part B**

Answer all questions.

Each question carries 5 marks.

13. List out the functions of Vagina
14. Give a note on salivary gland

15. Draw the waves of normal ECG
16. Explain the role of Aldosterone in human body
17. List out the composition of urine
18. Erythroblastosis fetalis
19. What is lag phase

(Ceiling Marks=30)

**Part C (Essay Questions)**

Answer any one Question.

Each question carries 10 marks.

20. Explain in detail about food borne infection. Discuss the methods of control and prevention
21. Write an essay on the control and destruction of bacteria

(1x10=10 Marks)

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

Time: 2.5Hours

Maximum Marks: 80

**Part A**

Answer all questions

Each question carries 2 marks.

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

(Ceiling Marks =25)

**Part B**

Answer all questions.

Each question carries 5 marks.

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?
23. What are the objectives of school lunch programme?

(Ceiling marks=35)

### **Part C**

#### **(Essay Questions)**

Answer any two questions

Each question carries 10 marks

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

(2x10=20 Marks)

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

Time: 2.5 Hours

Maximum Marks: 80

**Part A**

Answer all questions

Each question carries 2 marks.

1. An acquired tendency 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.
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

(Ceiling Marks=20)

**Part B**

Answer all questions.

Each question carries 5 marks.

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
23. Describe the factors in the selection of a site for house construction.

(Ceiling Marks=35)

**Part D (Essay Questions)**

Answer any two Questions. Each question carries 10 marks.

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

(2x10=20 Marks)

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

Time: 2.5 Hours

Maximum Marks : 80

**Part A**

Answer all questions.

Each question carries 2 marks.

1. Example of novelty yarn
2. A fabric made of flax fiber
3. Example of synthetic fiber
4. Yarn made by twisting two single yarns.
5. The lengthwise yarns in a woven fabric.
6. A variation of plain weave
7. Small geometric designs are produced by weave
8. Process of adding colour at the fibre stage
9. An example of direct printing
10. A finish to improve the luster of a cotton fabric
11. What is a regenerated fiber?
12. What is plain weave?
13. What is bonding?
14. Define knitting
15. What is the cross section of a cotton fiber

(Ceiling Marks=25)

**Part B**

Short answer questions.

Answer all questions. Each question carries 5 marks.

16. What is a regenerated fiber?
17. What is plain weave?

18. What is bonding?
19. Define knitting
20. What is the cross section of a cotton fiber
21. Define 'fibre'
22. Write a note on sanforization
23. What is resist printing

(Ceiling Marks=35)

**Part C**

**(Essay Questions)**

Answer any two Questions. Each question carries 10 marks.

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

(2x10=20 Marks)



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

Time: 2 hours

Maximum marks: 60

**Part A**

Answer all questions. Each question carries 2 marks.

1. . Purple is the compliment of .....
2. .... is a Japanese flower arrangement
3. Pink is the .....of the red colour
4. .... lines can create the effect of dignity and formality in interior
5. Blue is the shade of .....
6. Explain Japanese arrangement.
7. What is intermediate colour?
8. Functional accessories
9. What is monochromatic colour scheme?
10. What are decorative accessories?
11. Illustrate café curtain.
12. What are decorative accessories?

(Ceiling Marks=20)

**Part B**

Answer all. Each question carries 5 marks

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

(Ceiling Marks=30)

**Part C (essay questions)**

Answer any one Question. Each question carries 10 marks.

20. Explain flower arrangement under the following heading

a)Types b) Materials used c) Mass arrangement

21. Illustrate the different types of kitchen arrangement and layout

(10 x1=10 Marks)

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

Time : 2.5 Hours

Maximum Marks: 80

**Part A**

Answer all questions

Each question carries 2 marks.

1. What is TPN?
2. What is GTT?
3. What is keraomalacia?
4. What are the aetiological factors of type II diabetes?
5. State on osmotic diarrhoea
6. What is DASH?
7. Classify BMI.
8. Write on carcinogens
9. What are hypocholesterolemic agents?
10. What are the metabolic changes of fever?
11. What are the preventive measures for constipation?
12. Agents responsible for liver disease
13. What is keraomalacia?
14. What are the aetiological factors of type II diabetes?
15. State on osmotic diarrhoea

(Ceiling Marks=25)

**Part B**

Answer all questions.

Each question carries 5 marks.

16. Explain dietary management of cirrhosis
17. Plan a day's diet for a person suffering from hypertension and discuss.
18. Explain the role of fat in the cause of atherosclerosis
19. Describe the type of diet advised for a preschooler child suffering from PEM

20. Explain dietary management of cirrhosis
21. Plan a day's diet for a person suffering from hypertension and discuss.
22. Explain the role of fat in the cause of atherosclerosis
23. Describe the type of diet advised for a preschooler child suffering from PEM

(Ceiling Marks=35)

**Part C (Essay Questions)**

Answer any two Questions.

Each question carries 10 marks.

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

Model Question Paper  
CALICUT UNIVERSITY  
SIXTH SEMESTER B Sc DEGREE EXAMINATION  
(CBCSS-UG)  
CORE COURSE- FAMILY AND COMMUNITY SCIENCE  
FCS6 B10 –FABRIC CARE AND APPAREL DESIGNING

Time : 2.5 Hours

Maximum Marks: 80

**Part A**

Answer all questions

Each question carries 2 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
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?

(Ceiling Marks=25)

**Part B**

Answer all questions. Each question carries 5 marks.

16. Explain the causes of permanent hardness,
17. Define fashion cycle
18. Why does thread break during sewing?
19. What kind of clothes will you select for a very thin figure?
20. What are the different stages of fashion cycle?

21. What is visual merchandising?
22. What is Phulkari?
23. What is the importance of correcting stitch tension?

(Ceiling Marks=35)

**Part C (Essay Questions)**

Answer any two Questions. Each question carries 10 marks.

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

(2x10=20 Marks)

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

Time : 2 Hours

Maximum Marks: 60

**Part A**

Answer all questions

Each question carries 2 marks.

- 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
- 11 Define family
- 12 Define marriage

(Ceiling Marks=20)

**Part B**

Answer all questions. Each question carries 5 marks.

- 13 Define family
- 14 Define marriage
- 15 Stages of family cycle
- 16 Alcoholism
- 17 Courtship
- 18 Extended family
- 19 Contraception

(Ceiling Marks=30)

**Part C (Essay Questions)**

Answer one Question. Each question carries 10 marks.

- 20 Enumerate the major functions of family
- 21 Explain the different stages in family life cycle with example

(1x10=10 Marks)



Model Question Paper

CALICUT UNIVERSITY

SIXTH SEMESTER B Sc DEGREE EXAMINATION

(CBCSS-UG)

CORE COURSE- FAMILY AND COMMUNITY SCIENCE

FCS6 B12 E2- QUANTITY FOOD PREPARATION TECHNIQUES (ELECTIVE)

Time:2 Hours

Maximum Marks: 60

**Part A**

Answer all questions

Each question carries 2 mark.

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

(Ceiling Marks=20)

**Part B**

Answer all questions.

Each question carries 5 marks.

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

(Ceiling Marks=30)

**Part C (Essay Questions)**

Answer any one Question.

Each question carries 10 marks.

20. Explain Menu under the following headings

a) Factors affecting menu planning b) Menu Pricing

21. Elaborate the styles of service

(1x10=10 Marks)

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

Time : 2 Hours

Maximum Marks: 60 Marks

**Part A**

*Answer **all** questions*

*Each question carries 2 marks.*

1. Define poaching . bring out the advantages of it
2. Give advantages of pressure cooking
3. What is fermentation?
4. Write a short note on tyrosine inhibitors
5. Define caramalisation
6. Explain food pyramid
7. Explain nutritional significance of Fish
8. What is the principle of osmosis
9. What is meant by EFA
10. What is rigor mortis
11. Write a short note on tyrosine inhibitors
12. Define caramalisation

(Ceiling Marks=20)

**Part B (Short answer questions)**

*Answer **all** questions.*

*Each question carries 5 marks.*

13. Give a short note on rancidity
14. Explain the structure of a cereal grain with diagram
15. Write a note on germination
16. Explain functions of food
17. Explain Types of browning
18. Explain Ant nutritional Factors present in Pulses
19. Explain nutritional significance of Fish

(Ceiling Marks=30)

**Part C (Essay Questions)**

*Answer any **one** Question.*

*Each question carries 10 marks.*

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

(1x10=10 Marks)

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

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND  
NUTRITION

FCS2 C02 - FUNDAMENTALS OF NUTRITION

Time: 2 Hours

Maximum Marks: 60Marks

**Part A**

*Answer all questions*

*Each question carries 2 marks.*

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

(Ceiling Marks-20)

**Part B (Short Answer Questions)**

*Answer all questions.*

*Each question carries 5 marks.*

13. Define RDA
14. Differentiate PUFA & MUFA
15. What is physiological fuel value
16. Protein sparing action of carbohydrate
17. 4D's associated with pellagra
18. What are trace elements
19. Describe the properties of fat

(Ceiling Marks=30)

**Part C (Essay Questions)**

*Answer any **two** Questions.*

*Each question carries 10 marks.*

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

(1x10=10 Marks)

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

Time : 2 Hours

Maximum Marks: 60 Marks

**Part A**

*Answer all questions*

*Each question carries 2 marks.*

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

(Ceiling Marks=20)

**Part B (Short Answer Questions)**

*Answer all questions.*

*Each question carries 5 marks.*

13. What is the menu planning?
14. What is IDD?
15. Give the RDA for male computer professional
16. Anorexia nervosa
17. Balanced diet
18. What are lactogogue? Give example
19. Define nutritional assessment

(Ceiling Marks=30)

**Part C (Essay Questions)**

*Answer any **ONE** Question.*

*Each question carries 10 marks.*

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

(1x10=10 Marks)



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

COMPLEMENTARY COURSE- FAMILY AND COMMUNITY SCIENCE: FOOD AND  
NUTRITION

FCS4 C04 - DIETETICS

Time : 2 Hours

Maximum Marks: 60 Marks

**Part A**

*Answer all questions*

*Each question carries 2 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
11. What is TPN?
12. What is GTT?

(Ceiling Marks=20)

**Part B (Short Answer Questions)**

*Answer all questions.*

*Each question carries 5 marks.*

13. What is TPN?
14. What is GTT?
15. What is keraomalacia?
16. What are the aetiological factors of type II diabetes?
17. What is DASH?
18. Classify BMI.
19. What are hypocholesterolemic agents?

(Ceiling Marks=30)

**Part C (Essay Questions)**

*Answer any ONE Question.*

*Each question carries 10 marks.*

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

(1x10=10 Marks)