**DEPT. OF HOME SCIENCE**

**KAHM UNITY WOMEN’S COLLEGE, MANJERI**

**OPEN COURSE**

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

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

**Objectives**

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

**Course Outcomes**

CO1 Understand structure, functions and classification of foods and different food groups

CO2 Understand the nutritional and anti-nutritional factors of various foods

CO3 Assess the effect of heat on foods and compare different methods of cooking

CO4 Develop different recipes and evaluate its nutritional content

CO5 Understand structure, functions and classification of foods and different food groups

**Unit I** Introduction to food science 4hrs Functions of food, basic food groups and different methods and objectives of cooking.

**Unit II** - Study of foods 35hrs

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

b. Pulses Nutritive value and germination, role of pulses in cookery.

c. Vegetables classification and nutritive value

d. Fruits nutritive value, browning reaction

e. Milk and milk products

Nutrient composition, fermented– (curd butter, ghee) and non-fermented milk products (skimmed mile, homogenized milk, pasteurized 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 caramelization, hydrolysis and crystallization

**UNIT111** Food preservation- principles and methods (15hrs)

**Related experiences:**

1. 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.
2. Salad dressing - mayonnaise
3. Baking – Cake, pizza, cookies (demonstration)
4. Food preservation – Jam, squash, jelly, pickles.

**References:**

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

2. Mudambi, S.R. and Rao, S.M. Food Science, New Age International (P) ltd. Bangalore, 1989. 3. Begum, M.P., A Text Book of Food, Nutrition and Dietetics, sterling Publishers Pvt. Ltd., New Delhi, 2001.

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

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

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

**Model Question Paper**

**CALICUT UNIVERSITY**

**FIFTH SEMESTER B.Sc. DEGREE EXAMINATION**

**BSc. FAMILY AND COMMUNITY SCIENCE**

**(CBCSS-UG)**

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

**Time: 2 Hours Maximum Marks: 60**

**Section A**

**Answer all. Each question carries 2 marks**

1. What is dextrinization?

2. Explain enzymatic browning.

3. What are the pigments in vegetables?

4. Explain poor man’s milk.

5. What all are the importance of breakfast cereals?

6. Describe the effects of germination on pulses.

7. Name any five pigments present in vegetables.

8. Write down the different proteins in egg white and egg yolk.

9. Write any three nutritional importance of meat.

10. Explain sugar crystallization.

11. Explain the role of egg in cake making.

12. What are leavening agents?

Ceiling marks=20

**Section B**

**Answer all. Each question carries 5 marks**.

13. Explain rancidity in detail.

14. Objectives of cooking.

15. Describe browning reaction.

16. Explain caramelization of sugar

17. Importance of food preservation.

18. Give the functions of oils and fat.

19. Describe the nutritional importance of beverages.

ceiling marks30

**Section C**

**Answer any one.**

Each question carries 10 marks.

20. Explain the different methods of cooking with suitable examples.

21. Explain nutritional composition and importance of fish cookery.

1x10=10