

M.Sc. DEGREE EXAMINATION,  
NOVEMBER 2021.

First Year

Food and Nutritional Science

FUNDAMENTALS OF FOOD AND NUTRITION

Time : Three hours

Maximum : 70 marks

Answer ALL questions, choosing ONE from each Unit.

(5 × 14 = 70)

UNIT I

1. (a) Define Malnutrition and explain what are empty calories and balanced diet.

Or

- (b) Write an account on RDA of ICMR and WHO, their uses and limitations.

UNIT II

2. (a) Define fats, their composition, requirements and biological functions.

Or

- (b) Describe the sources of proteins, their effects and functions.

UNIT III

3. (a) Describe the fat soluble vitamins, their sources and functions.

Or

- (b) Write an account on the water soluble vitamins, their deficiency diseases and symptoms.

UNIT IV

4. (a) Describe the biological functions of sodium, potassium, and their sources.

Or

- (b) Explain the importance of micro minerals such as cobalt, copper and iodine in the human body.

UNIT V

5. (a) Explain the nutrient deficiency diseases and what are the remedial methods to be taken.

Or

- (b) Write an account on the programmes of government regarding different nutrient deficiency diseases.
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(DFN 02)

M.Sc. DEGREE EXAMINATION,  
NOVEMBER 2021.

First Year

Food and Nutritional Science  
NUTRITIONAL BIOCHEMISTRY

Time : Three hours

Maximum : 70 marks

Answer ALL questions, choosing one from each unit.

(5 × 14 = 70)

UNIT I

1. (a) Describe glycogenolysis and its importance in the body.

Or

- (b) Describe the Oxidation and biosynthesis of Lipids.

UNIT II

2. (a) Write an account on mineral metabolism.

Or

- (b) Explain the utilization ,and factors affecting utilization of micro nutrients.

UNIT III

3. (a) Describe the metabolism of Vitamins in the human body.

Or

- (b) Explain the utilization of Vitamins, uses and deficiencies of Vitamins.

UNIT IV

4. (a) Write an account on the IUB classification of Enzymes.

Or

- (b) Describe the factors influencing enzymes activity.

UNIT V

5. (a) Write an account on the immune system in the human body.

Or

- (b) Describe the immunity interactions and infections.
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**(DFN 03)**

M.Sc. DEGREE EXAMINATION,  
NOVEMBER 2021.  
First Year  
Food and Nutritional Science  
FUNCTIONAL FOODS

Time : Three hours

Maximum : 70 marks

Answer ALL questions, choosing one from each unit.

(5 × 14 = 70)

UNIT I

1. (a) Define functional foods and current market scenario of the health foods.  
Or  
(b) Describe the public demand and Indian market potential of the health foods.

UNIT II

2. (a) Explain the protein foods, their sources, types and methods of extraction.  
Or  
(b) Write an account on Low cholesterol oils and cholesterol free foods.

UNIT III

3. (a) Describe nutraceuticals, and their role in health and therapeutic applications.  
Or  
(b) Describe the nutritional implications of sodium free, lactose free, phenylalanine free and fibre rich foods.

UNIT IV

4. (a) Explain fortification nutrients in the processed foods and their role in health.  
Or  
(b) Describe the development of sugar free products and their nutritional implications.

UNIT V

5. (a) Define biotechnology, its need, and importance of food biotechnology.  
Or  
(b) Explain food processing improvements through biotechnology and their nutritional implications.
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**(DFN 04)**

M.Sc. DEGREE EXAMINATION,  
NOVEMBER 2021.

First Year

Food and Nutritional Science

INSTITUTIONAL FOODS SERVICE MANAGEMENT

Time : Three hours

Maximum : 70 marks

Answer ALL question, choosing ONE from each unit.

(5 × 14 = 70)

UNIT I

1. (a) Describe the tools of management and management of resources.

Or

- (b) Write an account on the types of Hotels, / Motels, Restaurants, Cafes and clubs.

UNIT II

2. (a) Write an account on the classification of equipment, selection of equipment, design and installation.

Or

- (b) Explain food service operations, and types of food services.

### UNIT III

3. (a) Describe the Laws governing food service in public catering, sanitation of food service in public catering.

Or

- (b) Explain the food safety measures in Airlines, Railways, temple and mass feeding programmes.

### UNIT IV

4. (a) Write an account on the food safety awareness programmes to food handlers and consumers.

Or

- (b) Explain the service training skills, required to operate and manage food service system.

### UNIT V

5. (a) Explain the scope of financial management of personnel in Hotels and Restaurants.

Or

- (b) Describe the process of Recruitment selection, induction and job analysis.
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