

M.Sc. DEGREE EXAMINATION, JUNE/JULY 2025.

First Semester

Food Science, Nutrition and Dietetics

**NUTRITION THROUGH LIFE CYCLE**

Time : Three hours

Maximum : 70 marks

Answer ONE question from each unit

Each question carries 14 marks.

**UNIT – I**

1. (a) Describe the food classification and food composition and nutritive values of different foods.

Or

- (b) Explain the nutritional requirement, intake, gaps and physiology of milk production.

**UNIT – II**

2. (a) Explain the types of infant formulae, and importance of preparation of weaning foods.

Or

- (b) Describe the effect of malnutrition, on physical and mental development.

**UNIT – III**

3. (a) Write an account on the consequences of nutritional deficiencies and adolescence pregnancy.

Or

- (b) Describe the metabolic consequences of slimming diets and weight maintenance.

**UNIT – IV**

4. (a) Explain the physiological and biochemical and body compositional changes and theories of ageing.

Or

- (b) Write an account on chronic degenerative diseases.

**UNIT – V**

5. (a) Describe the classification of sports events and RDA for sports person.

Or

- (b) Describe the nutritional needs for industrial workers and space nutrition.

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**FOOD CHEMISTRY AND ANALYSIS**

Time : Three hours

Maximum : 70 marks

Answer ONE question from each unit

Each question carries 14 marks.

**UNIT I**

1. (a) Describe the structure of water, free and entrapped water.

Or

- (b) Define colloids, characteristics of colloids, and gels.

**UNIT II**

2. (a) Explain the types of starches, and chemical structures of starch and uses.

Or

- (b) Describe the analysis solid and liquid Fats and explain rancidity.

**UNIT III**

3. (a) Describe the nature and types of Proteins and their uses.

Or

- (b) Describe electrophoresis and Micro Kjel dahl method.

**UNIT IV**

4. (a) Explain the chemistry, composition of fruits and vegetables.

Or

- (b) Write an account on plant tissues and their texture.

**UNIT V**

5. (a) Describe the various types of Vitamins and their uses.

Or

- (b) Explain the principle and applications of HPLC.

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**CLINICAL NUTRITION AND DIETETICS**

Time : Three hours

Maximum : 70 marks

Answer ONE question from each unit

Each question carries 14 marks.

**UNIT I**

1. (a) Define Dietetics and describe the history of Dietetics.

Or

- (b) Describe the regulation of food intake – hunger and its significance.

**UNIT II**

2. (a) Explain the theories of diet counselling and its importance.

Or

- (b) Describe the phases of stress and its consequences.

**UNIT III**

3. (a) Describe the therapeutic modifications of the normal diets.

Or

- (b) Describe the planning of special diets for surgical conditions and burns.

**UNIT IV**

4. (a) Describe the general principles of diet for the conditions osteoarthritis and gout.

Or

- (b) Explain the neurological disorders and migraine syndrome and also remedial methods.

**UNIT V**

5. (a) Explain the risk factors for the food and drug interactions.

Or

- (b) Describe the modifications of drug action by food and nutrition.

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**FOOD SCIENCE AND EXPERIMENTAL FOODS**

Time : Three hours

Maximum : 70 marks

Answer ONE question from each Unit.

Each question carries 14 marks.

**UNIT I**

1. (a) Describe Food groups and its relation to health.

Or

- (b) Describe the advantages and disadvantages of Microwave cooking.

**UNIT II**

2. (a) Explain the structure and characteristics of starch.

Or

- (b) Describe the composition of Fulses and legumes and their importance.

**UNIT III**

3. (a) Describe the composition and functional properties of Milk.

Or

- (b) Explain the classification and composition of Fish and marine foods.

**UNIT IV**

4. (a) Describe the types of sugars and sugar syrups and their influence on the health.

Or

- (b) Explain the functional properties of Fat and Rancidity.

**UNIT V**

5. (a) Explain the Sensory attributes of food quality and its characteristics.

Or

- (b) Describe the Analytical and Affective tests of sensory organs.
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