

**(DFN 22 B)**

M.Sc. DEGREE EXAMINATION, DECEMBER 2019.

Second Year

Food and Nutritional Science

EXPERIMENTAL FOODS

Time : Three hours

Maximum : 70 marks

Answer FIVE questions.

All questions carry equal marks.

UNIT I

1. (a) Explain the standardisation of food preparation.

Or

- (b) Write an account on food evaluation and sensory evolution.

UNIT II

2. (a) Describe the starch as thickness sources of starch, and quality of flour.

Or

- (b) Describe crystallisation, factors effecting size of crystals formed.

UNIT III

3. (a) Describe the effect of soaking, germination and fermentation on pulse products.

Or

- (b) Explain the egg as a binding, foaming and emulsify agent.

UNIT IV

4. (a) Describe the properties of milk protein, cheese and other milk products.

Or

- (b) Explain the post mortem changes, changes in cooking of Meat cookery.

UNIT V

5. (a) Describe the structure of fruit tissues, starches, sugars and their effect on texture and palatability.

Or

- (b) Explain the plant pigments and uses of extraction of papain and effect on meat and browning reactions.

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**(DFN21A)**

M.Sc. DEGREE EXAMINATION,  
DECEMBER 2019.

Second Year

Food and Nutritional Science

NUTRITION THROUGH LIFE CYCLE

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

All questions carry equal marks.

UNIT I

1. (a) Describe the Agricultural production, meal pattern and food availability for the wellbeing of country.

Or

- (b) Explain interrelation of socio-cultural and economic aspects and food availability impact on nutritional wellbeing of family.

UNIT II

2. (a) Write an account on the outcome effect on plan of nutrition of the pregnant mother.

Or

- (b) Describe the growth and development of infant existing practices and suitable method of introducing supplementary foods to wear the child.

UNIT III

3. (a) Describe the effect of poor nutrition on the growth support and feature adult hood.

Or

- (b) Write an account on the importance and necessity of school feeding programmes with special reference to A.P.

#### UNIT IV

4. (a) Describe the psychological effects leading degenerative changes in the middle aged, suggested dietary modifications.

Or

- (b) Explain the current concepts of lactation and composition of breast milk.

#### UNIT V

5. (a) Write an account on Geriatric nutrition.

Or

- (b) Explain the nutritional needs for industrial workers.
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**(DFN 21 B)**

M.Sc. DEGREE EXAMINATION,  
DECEMBER 2019.

Second Year

Food and Nutritional Science

**FOOD CHEMISTRY AND CHEMICAL ANALYSIS OF FOODS**

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

All questions carry equal marks.

**UNIT – I**

1. (a) Explain different types of water and their quality and components.

Or

- (b) Write an account on the physiochemical characters of hydrogen ion concentration and describe osmosis.

**UNIT – II**

2. (a) Write an account on the chemical and physical structure of millets and tubers.

Or

- (b) Describe the structure and properties of different proteins and their uses.

**UNIT – III**

3. (a) Describe the chemistry and composition of fruits and vegetables.

Or

- (b) Describe the functions of enzymes and their importance to food quality.

UNIT – IV

4. (a) Enumerate ash as an indicator of total mineral content.

Or

- (b) Describe the chemical structure and chemical changes of pigments on cooking

UNIT – V

5. (a) Explain the applications of Flame photometry and procedures in food analysis with examples.

Or

- (b) Describe the structure and properties of different fatty acids.
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**(DFN 22 A)**

M.Sc. DEGREE EXAMINATION, DECEMBER 2019.  
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NUTRITIONAL ASSESSMENT TECHNIQUES

Time : Three hours

Maximum : 70 marks

Answer ALL questions.

All questions carry equal marks.

UNIT I

1. (a) Describe the development of skills in conducting a dietary survey for pre-school children.

Or

- (b) Explain the methods of assessment of health status.

UNIT II

2. (a) Write an account on conducting institutional diet survey.

Or

- (b) Describe the methods of assessing body mass index for University students.

UNIT III

3. (a) Describe the measurement of anthropometry for pre -school children.

Or

- (b) Explain the assessment of iron nutritional status of pregnant women.

UNIT IV

4. (a) Describe the methods used for calculation of malnutrition in school children.

Or

- (b) Describe the biochemical methods to know the estimation of Hemoglobin.

UNIT V

5. (a) Explain the methods of conducting nutritional survey in terms of physical activity and energy consumption.

Or

- (b) Describe the biochemical methods used for major nutritional disorders and standards of comparison.
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**(DFN 23 A)**

M.Sc DEGREE EXAMINATION,  
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Food and Nutritional Science

CLINICAL NUTRITION AND DIETETICS

Time : Three hours

Maximum : 70 marks

Answer FIVE questions one from each unit

All questions carry equal marks

UNIT I

1. (a) Define Dietician, their qualifications. Classification and responsibilities.  
Or  
(b) Write an account on the principles in formulation of therapeutics diets and factors to be considered for therapeutic diets.

UNIT II

2. (a) Describe the physiology, metabolic changes and complications of under weight and add a note on modification of diet  
Or  
(b) Write an account on the classification of foods and preparation of normal diet.

UNIT III

3. (a) Explain the types of allergens, symptoms, metabolic changes.

Or

- (b) Describe the diagnostic tests and dietary management for allergens.

UNIT IV

4. (a) Explain Dyspepsia, gastritis and Ulcer including their symptoms and remedies.

Or

- (b) Describe the malabsorption syndrome, spruce and diverticular disorders.

UNIT V

5. (a) Describe the epidemiology, etiology, symptoms and remedial features of Hepatitis.

Or

- (b) Write an account on Cirrhosis and its effects including remedial measures.
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**FOOD MICROBIOLOGY AND TOXICOLOGY**

Time : Three hours

Maximum : 70 marks

Answer FIVE question

All question carry equal marks

**UNIT - I**

1. (a) Describe microorganisms contamination during processing and handling of food.

Or

- (b) Write an account on the principles underlying spoilage and chemical changes caused by microorganisms.

**UNIT II**

2. (a) Write an account on classification of mycotoxins and methods of their detection and prevention

Or

- (b) Describe the factors relating in destruction of naturally present food enzymes.

**UNIT III**

3. (a) Explain the factors affecting toxicity of foods and disease out beaks.

Or

- (b) Describe the growth curves of microorganisms and their death time.

UNIT IV

4. (a) Write an account on Allergenicity, and Mutagenicity including their effects.

Or

- (b) Describe Neuro toxicity, Hepatic toxicity and Nephron toxicity and their implications on human health.

UNIT-V

5. (a) Describe the toxins formed from fats by oxidation and Rancidity.

Or

- (b) Write an account on the toxins formed from proteins and amino acids by alkali treatment.
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**(DFN 24 A)**

M.Sc. DEGREE EXAMINATION, DECEMBER 2019.

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DIET THERAPY AND COUNSELING

Time : Three hours

Maximum : 70 marks

Answer FIVE questions ONE from each unit.

All questions carry equal marks.

UNIT I

1. (a) Describe emotion therapy, reality therapy and impact of counselling on health and diseases of individuals.

Or

- (b) Write an account on Nutrition support systems.

UNIT II

2. (a) Describe the clinical symptoms, diagnostic tests, diet management and counselling for Febrile conditions.

Or

- (b) Describe the diet counselling for Obese people.

UNIT III

3. (a) Describe dietary management of Insulin and drugs for Diabetics.

Or

- (b) Explain Myocardial infraction and consecutive cardiac failure and remedial features.

UNIT IV

- 4. (a) Describe, Hypertension, and Atherosclerosis and their preventive and curative aspects.

Or

- (b) Explain diet counselling for cardiovascular diseases.

UNIT V

- 5. (a) Describe the Renal disorders and diet counselling for renal disorders.

Or

- (b) Write an account on HIV and AIDS and diet counselling for HIV and AIDS patients.

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M.Sc. DEGREE EXAMINATION, DECEMBER 2019.

Second Year

Food and Nutritional Science

FOOD SAFETY AND QUALITY ASSURANCE

Time : Three hours

Maximum : 70 marks

Answer ALL questions

All questions carry equal marks

UNIT I

1. (a) Describe the biological hazards in food and their effects on health.

Or

- (b) Write an account on recognised experts in the food quality.

UNIT II

2. (a) Describe the chemical hazards in food and their effects on health.

Or

- (b) Write an account on the systems and programmes for food quality and food safety

UNIT III

3. (a) Write an account on food adulterants and their types.

Or

- (b) Describe food additives such as stabilizers and preservatives and antioxidants.

UNIT IV

- 4. (a) Differentiate between quality programmes and quality systems.

Or

- (b) Describe the physical hazards in food and their effects on human health.

UNIT V

- 5. (a) Explain quality system standards and explain ISO 9000 quality system standards.

Or

- (b) Write an account on GMPs and HACCP prerequisite programme premises and facilities.

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