M.Sc. DEGREE EXAMINATION, MARCH ,2023. Food and Nutritional Science NUTRITION THROUGH LIFE CYCLE

- 1. (a) Explain the Nutritional well being in the individual family and country.
  - (b) Write an account on the food availability and meat pattern with reference to Agricultural production.
- 2. (a) Write an account on the out come effect on plan of Nutrition of the mother on the factorial growth hazard.
  - (b) Describe the current concepts of Lactation and composition of breast milk.
- 3. (a) Describe the effects of under nutrition and infections and dangers of malnutrition on the growth and development of child.
  - (b) Write an account on the school child importance and necessity of school feeding in A.P

M.Sc. DEGREE EXAMINATION, MARCH ,2023. Food and Nutritional Science NUTRITION THROUGH LIFE CYCLE

## MAXIMUM: 30 MARKS ANSWER ALL QUESTIONS

•

- 1. (a) Describe the Psychological effects of the middle aged leading degenerative changes.
  - (b) Explain, what are the diseases and dietary modification changes in the middle aged.
- 2 a) Describe the changes in body composition with reference to Geriatric Nutrition.
  - (b) Explain the nutritional needs for industrial workers.

M.Sc. DEGREE EXAMINATION, MARCH 2023.
Food and Nutritional Science
FOOD CHEMISTRY AND CHEMICAL ANALYSIS OF FOODS

- 1. (a) Describe the types of water and water activity.
  - (b) Write an account on the components of water and its chemistry.
- 2. (a) Describe the types of starches and chemical and physical structures of cereals.
  - (b) Describe the nature and types of proteins.
- 3. (a) Describe the changes in post harvesting stages including storage of Fruits.
  - (b) Describe the types and functions of enzymes in foods

M.Sc. DEGREE EXAMINATION, MARCH 2023.
Food and Nutritional Science
FOOD CHEMISTRY AND CHEMICAL ANALYSIS OF FOODS

## MAXIMUM: 30 MARKS ANSWER ALL QUESTIONS

•

- 1. (a) Explain i Ash as an indicator of total mineral content.
  - (b) Write an account on the applications of chromatographic techniques in food analysis.
- 2. (a) Explain the principle and applications of Spectroscopy and procedures in food analysis with suitable examples.
  - (b) Describe the principles of calorimetric and procedures in food analysis with examples..

M.Sc. DEGREE EXAMINATION MARCH 2023. Food and Nutritional Science NUTRITIONAL ASSESSMENT TECHNIQUES

- 1. (a) Describe the needs of Nutritional determinants.
  - (b) Explain Nutritional surveillance and overview of the methods of assessment of health status.
- 2. (a) Describe the direct methods of nutritional assessment of Human groups.
  - (b) Explain the indirect methods of nutritional assessment of Human groups.
- 3. (a) Describe the classification used to categorize the malnutrition.
  - (b) Describe the guidelines for interpretations of growth charts.

M.Sc. DEGREE EXAMINATION MARCH 2023. Food and Nutritional Science NUTRITIONAL ASSESSMENT TECHNIQUES

- 1. (a) Describe the methods and techniques for assessing dietary intakes of individuals.
  - (b) Describe the factors affecting the accuracy of dietary assessment.
- 2. (a) Explain the different methods and techniques for clinical assessment of nutritional status.
  - (b) Explain the different methods and techniques for major nutritional disorders.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science EXPERIMENTAL FOODS

- 1. (a) Write an account on the classification of basic five groups of Foods
  - (b) Describe the evaluation of foods.
- 2. (a) Describe Gelatin and factors affecting Gelatin.
  - (b) Describe the properties of Oils and Fats.
- 3. (a) Describe the properties affecting the quality of cooked products.
  - (b) Explain the post mortem changes, changes in cooking and changes during heat treatment of Meat.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science EXPERIMENTAL FOODS

# MAXIMUM: 30 MARKS ANSWER ALL QUESTIONS

- 1. (a) Describe the properties of egg proteins and uses in egg preparations
  - (b) Describe the role of sugar in the preparation of cakes and Indian sweets.
- 2. (a) Explain the structure of vegetable tissues, starches, sugar and pectin substances.

(b) Write an account on plant pigments and browning reactions.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science CLINICAL NUTRITION AND DIETETICS

- 1. (a) Describe the history of dietetics and origin of the association membership and board registration.
  - (b) Describe the classification of Foods and preparation of normal foods.
- 2. (a) Explain the complications and dietary modifications during Obesity.
  - (b) Describe the etiology, physiology and metabolic changes of Obesity.
- 3. (a) Describe the types of allergens of different types of foods.
  - (b) Explain the symptoms, metabolic changes of food allergy and intolerance.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science CLINICAL NUTRITION AND DIETETICS

- 1. (a) Write an account on Dyspepsia and Gostritis.
  - (b) Describe mal absorption syndrome and spruce.
- 2. (a) Describe the Liver and Gall bladder disorders.
  - (b) Write an account on jaundice and Hepatitis.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science FOOD MICROBIOLOGY AND TOXICOLOGY

- 1. (a) Describe the contamination of microorganisms during processing and handling of foods.
  - (b) Describe the factors relating in destruction of naturally present food enzymes.
- 2. (a) Write an account on the classification of mico toxins and methods of detection.
  - (b) Describe the mico toxin contamination of foods.
- 3. (a) Write an account on the classification of food toxicants.
  - (b) Describe the factors affecting toxicity of foods and disease out breaks.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science FOOD MICROBIOLOGY AND TOXICOLOGY

- 1. (a) Write an account on Neuro toxicity and Hepatic toxicity.
  - (b) Describe toxicity of Marine foods such as Molluscs, fish and Marine algae.
- 2. (a) Describe the toxins forms from fats by oxidation and Rancidity.
  - (b) Write an account on the toxins produced from protein and Amino acids.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science DIET THERAPY AND COUNSELING

- 1. (a) Write an account on Nutrition support systems.
  - (b) Describe the types and models of counselling.
- 2. (a) Describe the Diet counselling for Obese people.
  - (b) Write an account on Diet management and counselling.
- 3. (a) Describe etiology, diagnosis, complications, types and metabolic changes of diabetes.
  - (b) Explain the dietary management, insulin and drugs for diabetics.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science DIET THERAPY AND COUNSELING

- 1. (a) Explain Ischaemic heart diseases and their control measures.
  - (b) Describe the etiology, metabolic changes, role of fibre and diet of cardiovascular patients.
- 2. (a) Write an account on Nephrotic syndrome and Nephritis.
  - (b) Describe the Diet counselling for HIV and AIDS patients.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science FOOD SAFETY AND QUALITY ASSURANCE

- 1. (a) Write an account on the Recognized experts in the quality fields.
  - (b) Describe the food quality assurance and its importance.
- 2. (a) Write an account on scope of food quality and food safety.
  - (b) Describe the systems and programmes for quality and food safety.
- 3. (a) Describe the biological hazards in food quality.
  - (b) Explain the physical hazards in foods.

M.Sc. DEGREE EXAMINATION, MARCH 2023. Food and Nutritional Science FOOD SAFETY AND QUALITY ASSURANCE

- 1. (a) Explain GMPs as business practice in the food industry.
  - (b) Write an account on ISO 9000 quality system standards.
- 2. (a) Describe the evolution of the HACCP systems and its origin.
  - (b) Describe the chronology food safety related events.