DFN21A

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCES Nutrition Through Life Cycle

Time : 3 Hours

## Maximum Marks : 70

<u>Answer any Five Questions.</u> <u>All questions carry equal marks.</u>

# <u>UNIT - I</u>

- **Q1)** a) Describe the population pressure and food availability and its impact on nutritional wellbeing in the National context.
  - b) Write an account on Agriculture production and economic aspects on wellbeing of the country.

## <u>UNIT - II</u>

- **Q2)** a) Write an account on the growth and development of infants feed on breast milk and trends in breast feeding.
  - b) Explain the growth and development of infant existing practices and suitable method of introducing supplementary foods to wear the child.

# <u>UNIT - III</u>

- Q3) a) Describe the effect of poor nutrition on the growth support and feature adult hood.
  - b) Describe the importance and necessity of school lunch programmes with special reference to Andhra Pradesh.

# UNIT - IV

- **Q4)** a) Explain the psychological effects leading to biochemical changes in the middle aged, and suggest the dietary modifications for good health.
  - b) Describe the current concepts of lactation and composition of breast milk.

# <u>UNIT - V</u>

- Q5) 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 sports nutrition and nutritional needs for industrial workers.



Total No. of Questions : 5]

DFN21B

### M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019

#### (Second Year)

#### **FOOD & NUTRITIONAL SCIENCE**

#### Food Chemistry & Chemical Analysis of Foods

Time : 3 Hours

#### Maximum Marks : 70

# <u>Answer any Five Questions.</u> All questions carry equal marks.

### UNIT - I

**Q1**) a) Describe the different types of water and its activity.

#### OR

b) Write an account on the physiochemical characters of colloidal solutions and suspensions.

#### <u>UNIT - II</u>

(Q2) a) Write an account on the chemical and physical structure of cereals and legumes.

#### OR

b) Explain the proteins of wheat and its importance in the preparation of flour products.

#### <u>UNIT - III</u>

**Q3)** a) Describe the changes in post harvesting stages including storage of fruits and vegetables.

#### OR

b) Describe the type of enzymes in foods, their functions and importance to food quality.

### <u>UNIT - IV</u>

Q4) a) Describe the applications of chromatographic techniques in food analysis.

#### OR

b) Describe the chemical structure and chemical changes of Chlorophylls and Carotenoids on cooking.

#### UNIT - V

Q5) a) Describe the applications of Spectroscopy and procedures in food analysis with examples.

#### OR

b) Write an account on the structure and properties of different fats.

# DFN22A

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCE Nutritional Assessment Techniques

Time : 3 Hours

### Maximum Marks : 70

## <u>Answer any Five Questions.</u> <u>All questions carry equal marks.</u>

# <u>UNIT - I</u>

- **Q1**) a) Explain the development of skills in conducting a dietary survey for school children.
  - b) Describe the methods of assessment of health status for University ladies.

## <u>UNIT - II</u>

- **Q2)** a) Describe the methods of conducting institutional diet survey for employees.
  - b) Describe the methods of assessing body mass index for University male students.

### <u>UNIT - III</u>

- Q3) a) Describe the measurement of anthropometry for children.
  - b) Describe the assessment of iron nutritional status of pregnant women is community.

### UNIT - IV

- Q4) a) Describe the methods used for calculation of malnutrition in street children.
  - b) Explain the biochemical methods to estimate Haemoglobin in pregnant women.

### <u>UNIT - V</u>

- Q5) a) Describe the methods of conducting nutritional survey in terms of physical activity and energy consumption.
  - b) Write an account on the biochemical methods used for major nutritional disorders and standards of comparison.

Total No. of Questions : 5]

# DFN22B

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCE Experimental Foods

Time : 3 Hours

Maximum Marks: 70

# Answer any Five Questions. All questions carry equal marks.

### <u>UNIT - I</u>

- Q1) a) Write an account on the classification of foods of basic five groups.
  - b) Describe food evaluation and selection of taste panels.

### <u>UNIT - II</u>

- (Q2) a) Describe the factors effecting gelatin and dough gluten formation.
  - b) Describe the properties of fats and oils and add a note on hydrogenation.

#### <u>UNIT - III</u>

- Q3) a) Describe the factors affecting the quality of cooked pulse products.
  - b) Explain the properties of egg proteins and uses of egg preparations.

#### UNIT - IV

- Q4) a) Describe the fish types and changes during heat treatment.
  - b) Explain the role of sugar in the preparation of cakes and Indian sweets.

#### UNIT - V

- Q5) a) Describe the structure of vegetable tissues, starches, sugars and their effect on texture and palatability.
  - b) Write an account on the plant enzymes and uses of extraction of papain and effect on meat.

Total No. of Questions : 5]

DFN23A

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCE Clinical Nutrition and Dietetics

Time : 3 Hours

#### Maximum Marks : 70

## Answer any Five Questions. All questions carry equal marks.

# <u>UNIT - I</u>

- **Q1**) a) Explain the code of ethics and obligations of Dietecian.
  - b) Write an account on origin and history of Dietics association, membership and Registration.

### <u>UNIT - II</u>

- **Q2)** a) Describe the etiology, physiology, metabolic changes and complications of obesity.
  - b) Describe the classification of foods and preparation of normal diet.

### <u>UNIT - III</u>

- **Q3)** a) Describe the types of allergens, symptoms, metabolic changes.
  - b) Explain the diagnostic tests and dietary management for allergens.

#### UNIT - IV

- **Q4)** a) Write an account on Dyspepsia, gastritis and Ulcer including their symptoms and remedies.
  - b) Explain the malabsorbption syndrome, spruce and diverticular disorders.

# <u>UNIT - V</u>

- Q5) a) Describe the epidemiology, etiology, symptoms and remedial features of jaundice.
  - b) Write an account on Pancreatitis and its effects.

# DFN23B

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCE Food Microbiology and Toxicology

Time : 3 Hours

# Maximum Marks : 70

### Answer any Five Questions. All questions carry equal marks.

## <u>UNIT - I</u>

- **Q1**) a) Describe the moulds, Yeasts, and bacteria contaminated during preservation of foods.
  - b) Describe the methods of controlling microorganisms in food preservation process.

## <u>UNIT - II</u>

- **Q2)** a) Write an account on the methods of detection and prevention of mould and mycotoxin contamination.
- b) Describe the factors relating in destruction of naturally present food enzymes.

# <u>UNIT - III</u>

- Q3) a) Describe the factors affecting toxicity of foods and disease out beaks.
  - b) Explain the physicochemical factors influencing destruction of microorganisms and their death time.

### UNIT - IV

- Q4) a) Write an account on Allergenicity, and Mutagenecity including their effects.
  - b) Explain Haemo toxicity, skeletal toxicity and Reproductive toxicity and their implications on human health,

# <u>UNIT - V</u>

- Q5) a) Describe the incidence of mushroom poisoning and types of mushroom poisoning.
  - b) Write an account on the toxins formed from proteins and amino acids by alkalitreatment and produced by reacting with contaminants.

# DFN24A

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCES Diet Therapy and Counseling

# Time : 3 Hours

### Maximum Marks : 70

# <u>Answer any Five Questions.</u> <u>All questions carry equal marks.</u>

# <u>UNIT - I</u>

- **Q1)** a) Describe the meaning and significance of diet counselling and explain the types of counselling
  - b) Describe the impact of counselling on health and diseases of individuals and role of counselling in hospitals.

# <u>UNIT - II</u>

- **Q2)** a) Write an account on the diet counselling for Obese people.
  - b) Describe the types of Febrile conditions, etiology and metabolic changes.

# <u>UNIT - III</u>

- **Q3)** a) Describe etiology, diagnosis, complications, types and metabolic changes of Diabetes mellitus.
  - b) Describe the dietary counselling for cardio vascular disease.

# <u>UNIT - IV</u>

- **Q4)** a) Write an account on Hypertension, and Atherosclerosis and their preventive and curative aspects.
  - b) Explain Myocardial infraction and consecutive Heart failure and their preventive and curative measures.

# <u>UNIT - V</u>

- **Q5)** a) Describe diagnosis, metabolic changes in Renal disorders and diet counselling.
  - b) Write an account on Nutritional cancer and diet counselling for cancer.

Total No. of Questions : 5]

# DFN24B

# M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (Second Year) FOOD & NUTRITIONAL SCIENCE Food Safety and Quality Assurance

Time : 3 Hours

#### **Maximum Marks : 70**

<u>Answer any Five Questions.</u> <u>All questions carry equal marks.</u>

#### <u>UNIT - I</u>

**Q1**) a) Describe the definitions and explanation of terms of food quality.

#### OR

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

#### <u>UNIT - II</u>

(Q2) a) Write an account on the responsibilities of food quality and food safety.

#### OR

b) Describe the systems and programmes for food quality and food safety.

#### UNIT - III

Q3) a) Write an account on food adulterants and their types.

### OR

b) Explain food additives such as stabilizers and preservatives.

#### UNIT - IV

**Q4)** a) Describe food safety hazards and health risks.

# OR

b) Write an account on physical hazards in food.

#### <u>UNIT - V</u>

**Q5)** a) Explain quality management systems and Quality assurance systems.

OR

b) Write an account on GMPs as business practice in the food industry.