

**(DFN21A)**

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**M.Sc. DEGREE EXAMINATION, DEC. – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Nutrition through Life Cycle**

**Time : 3 Hours**

**Maximum Marks : 70**

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Answer All questions, choosing one from each unit

*[5 × 14 = 70]*

All questions carry equal marks

**Unit - I**

**Q1)** a) Discuss the Quantity of agriculture production and food availability to the individual at country level.

OR

b) Write about the Socioeconomic and cultural aspects with regard to nutritional well being in the country.

**Unit - II**

**Q2)** a) Give an account on the pregnancy outcome effect on plan of nutrition of the mother.

OR

b) Discuss the infancy growth and the development of infant existing practices.

**Unit - III**

**Q3)** a) Write about the nutritional aspects among school going children. What are the effects of under nutrition among school going children.

OR

b) Explain the importance of nutritional values among pre-adolescent and adolescents. Write the effects of poor nutrition in these categories.

**Unit - IV**

**Q4)** a) Discuss the Biochemical changes occur in middle aged women and their effects.

OR

b) Give an account on the Psychological effects in Middle aged gents.

**Unit - V**

**Q5)** a) Write about the need and importance of Geriatric nutrition.

OR

b) Discuss the nutritional requirements among sports people.

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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Nutritional Assessment Techniques**

**Time : 3 Hours**

**Maximum Marks : 70**

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*Answer All questions, choosing one from each unit*

*[5 × 14 = 70]*

*All questions carry equal marks*

**Unit - I**

**Q1)** a) Make an overview of methods of assessment of nutritional status.

OR

b) Explain the indirect methods of nutritional assessment of human groups.

**Unit - II**

**Q2)** a) What is the need of determination of nutritional values? Write about nutritional surveillance.

OR

b) Explain the indicators of nutritional status by weight/age and height/age methods.

**Unit - III**

**Q3)** a) Explain the principle and applications of Anthro meters.

OR

b) Explain the cut of points used to distinguish current and long term malnutrition. Write about the specificity and sensitivity of new devices.

**Unit - IV**

**Q4)** a) Discuss the Dietary measurement methods and techniques for assessing dietary intakes of institutional levels.

OR

b) Explain the problems encountered in intake measurements and write the factors affecting the interpretation of dietary data.

**Unit - V**

**Q5)** a) How clinical assessment of nutritional data is useful in diagnosis of sign of relation to various human diseases.

OR

b) Explain the Field level assessment techniques for measuring nutritional values of various types of people.

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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Clinical Nutrition and Dietetics**

**Time : 3 Hours**

**Maximum Marks : 70**

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Answer All questions, choosing one from each unit

[5 × 14 = 70]

All questions carry equal marks

**Unit - I**

**Q1)** a) Write the classification and preparation of normal diets. What are the factors to be considered in the preparation of therapeutic diets.

OR

b) Define Dietician. Write the qualifications, responsibilities and Ethics of a dietician.

**Unit - II**

**Q2)** a) Discuss the physiological and metabolic changes observed in obesity. Suggest dietary modifications for control of obesity.

OR

b) Write about the grades and symptoms of under weight suggest dietary modifications for controlling under Weight.

**Unit - III**

**Q3)** a) Write about the tests and symptoms for allergy. How do you control allergy through dietary modifications?

OR

b) What is meant by intolerance. Write the causes and control methods for intolerance.

**Unit - IV**

**Q4)** a) Write the causes and symptoms Dyspepsia and gastritis. Explain the food control methods for these disorders.

OR

b) What are the effects of malnutrition? Suggest dietary therapy for malnutrition removal.

**Unit - V**

**Q5)** a) What are biliary track disorders? Write the diagnostic tests and control measures for this disorder.

OR

b) Explain the diagnostic tests for pancreatitis problems suggest dietary therapy for controlling these disorders.

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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Diet Therapy and Counseling**

**Time : 3 Hours**

**Maximum Marks : 70**

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*Answer All questions, choosing one from each unit*

*[5 × 14 = 70]*

*All questions carry equal marks*

**Unit - I**

**Q1)** a) Write the importance of diet counseling. Discuss various methods of diet counseling.

OR

b) Write in detail about nutrition support systems.

**Unit - II**

**Q2)** a) Write the clinical symptoms of fertile stages. Explain the advantages and principles of diet counseling during fertility.

OR

b) Write the diagnostic tests for fertility confirmation and the dietary management during fertility.

**Unit - III**

**Q3)** a) Discuss the complications and types of metabolic changes in diabetes.

OR

b) How diet counseling is useful for diabetic control?

**Unit - IV**

- Q4)** a) Explain the causes for Hypertension and metabolic changes during hypertension. Suggest methods to control hypertension through diet counseling.

OR

- b) Discuss the prevention and curative methods for Cardiovascular diseases.

**Unit - V**

- Q5)** a) What is Nutritional cancer? Explain Diet counseling for cancer and AIDS.

OR

- b) Write clinical tests for the diagnosis of Renal disorders. Write the treatment and Diet counseling for Renal disorders.

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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Food Chemistry & Chemical Analysis of Foods**

**Time : 3 Hours**

**Maximum Marks : 70**

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*Answer All questions, choosing one from each each unit* [5 × 14 = 70]

*All questions carry equal marks*

**Unit - I**

**Q1)** a) Write about the types of water and its composition. What is Osmosis? How do you determine pH of water samples.

OR

b) Write the physical and chemical properties of proteins. Explain the amino acid composition and their chemical properties.

**Unit - II**

**Q2)** a) Write the physical and chemical properties of different types of oils. How do you determine total fatty acid content of oils?

OR

b) Write the chemical properties of starch and the methods of preparation of different starches.

**Unit - III**

**Q3)** a) Explain the chemical structure of chlorophyll. Write about water soluble pigments.

OR

b) What are plant tissues? Write the chemical composition of fruits. Explain the browning reactions in fruits.

**Unit - IV**

- Q4)** a) Write the basic instrumentation, working principle and application of Gas Liquid Chromatography (GLC) in Food analysis.

OR

- b) Write the principle of TLC. How do you prepare TLC plate. Write the applications of TLC in Food analysis.

**Unit - V**

- Q5)** a) Write the basic principles of Spectroscopy and how these techniques are useful for the analysis of Food samples.

OR

- b) Write the instrumentation principles and experimental procedure for the analysis of Food samples by colorimetric method.



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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Experimental Foods**

**Time : 3 Hours**

**Maximum Marks : 70**

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*Answer All questions, choosing one from each unit*

*[5 × 14 = 70]*

*All questions carry equal marks*

**Unit - I**

**Q1)** a) Explain the standardization of Food preparations.

OR

b) Write about Food evaluation and Sensory evolution

**Unit - II**

**Q2)** a) Explain the formation of gluten in wheat flour and its quality.

OR

b) Write about the role of sugar in the preparation of cakes and Indian sweets.

**Unit - III**

**Q3)** a) Explain hydrogenation of oils. How do you determine smoking point and melting point of oils?

OR

b) Describe the factors affecting the quality of cooked food products. Explain germination and fermentation.

**Unit - IV**

**Q4)** a) Write about various methods of Meat cooking. Explain the changes during heat treatment.

OR

b) Write the properties of cheese. Explain the preparation of other milk products.

**Unit - V**

**Q5)** a) Discuss the structure of starches, sugars and pectin substances. Write their uses.

OR

b) What are Plant pigments and plant enzymes? Give examples. Write the extraction of Peparin.

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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Food Microbiology and Toxicology**

**Time : 3 Hours**

**Maximum Marks : 70**

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Answer All questions, choosing one from each unit

[5 × 14 = 70]

All questions carry equal marks

**Unit - I**

**Q1)** a) Write the principles underlying in the spoilage of foods. Explain the chemical changes caused by micro organisms.

OR

b) What are the Food Enzymes? Explain the factors relating to denaturation of naturally present food enzymes.

**Unit - II**

**Q2)** a) Write the preventive methods for preventing contamination of foods through microtoxins.

OR

b) Write methods for the detection of various types of microtoxins.

**Unit - III**

**Q3)** a) Explain the classification of Food toxicants with examples and the factors affecting toxicity of foods.

OR

b) Explain the general mechanism of food toxicology.

**Unit - IV**

- Q4)** a) Discuss the implications of Nephron toxicity and reproductive toxicity on human health.

OR

- b) Discuss the implications of Skeletal toxicity and Haeno toxicity on human health.

**Unit - V**

- Q5)** a) Explain rancidity toxins formation and their reactions and effects on human health.

OR

- b) Discuss the Food toxins formed due to proteins and their reactions and the effects on human health.



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**M.Sc. DEGREE EXAMINATION, DECEMBER – 2018**

**Second Year**

**FOODS & NUTRITIONAL SCIENCE**

**Food Safety and Quality Assurance**

**Time : 3 Hours**

**Maximum Marks : 70**

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*Answer All questions choosing one from each unit*

*All questions carry equal marks*

*[5 × 14 = 70]*

**Unit - I**

**Q1)** a) Write in detail about recognized experts in the quality field.

OR

b) Write about origin and evolution of HACCP system in Food Safety.

**Unit - II**

**Q2)** a) Explain the Food adulterants, their identification and control methods for adulteration.

OR

b) Make an overview on Food quality and Food safety.

**Unit - III**

**Q3)** a) Write about quality system standards of Foods and Quality Management Systems.

OR

b) Write in detail about agricultural residues and chemical residues in foods? Mention their hazardous aspects in foods.

**Unit - IV**

**Q4)** a) How do you explain that GMPS as business practice in Food Industry?

OR

b) Write about GMPS and HACCP prerequisite programmes in Food Industry.

**Unit - V**

**Q5)** a) Write about the establishment of verification procedures for each CCP and for the entire HACCP plan.

OR

b) Explain the establishment of record keeping and documentation procedures for the HACCP plan.