

**(DFN01)**

**Total No. of Questions : 05]**

**[Total No. of Pages : 02**

**M.Sc. DEGREE EXAMINATION, MAY - 2018**

**First Year**

**FOOD & NUTRITIONAL SCIENCE**

**Fundamentals of Food and Nutrition**

**Time : 3 Hours**

**Maximum Marks : 70**

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**Answer all questions choosing one from each Unit.**

**(5 x 14 = 70)**

**Unit - I**

**Q1)** a) Explain the terms health and malnutrition. Write about edible portion of food and their calorific values with examples.

OR

b) Explain the latest concepts in dietary recommendations according to ICMR. What are its uses and limitations?

**Unit - II**

**Q2)** a) What are Carbohydrates? Write the food sources and classification of Carbohydrates by taking suitable examples.

OR

b) What are saturated and un-saturated fatty acids? Give examples. Write their importance and biological functions.

**Unit - III**

**Q3)** a) What are Fat Soluble Vitamins? Write the Food sources and functions of Vitamin A and K.

OR

b) Write the symptoms of deficiencies of Vitamin B and C. Explain the sources and biological functions of Vitamin B and C.

#### **Unit – IV**

**Q4)** a) Write the biological functions of Calcium and Phosphorous. What are the food sources for Calcium and Phosphorous?

OR

b) Explain the food sources and biological functions of Chromium and Iodine.

#### **Unit – V**

**Q5)** a) Discuss the role of RDA in spreading the food and nutrition programmes.

OR

b) Discuss the nutrient deficiency diseases by taking specific examples and suggest remedial methods.



**(DFN02)**

Total No. of Questions : 05]

[Total No. of Pages : 02

**M.Sc. DEGREE EXAMINATION, MAY - 2018**

**First Year**

**FOODS & NUTRITIONAL SCIENCE**

**Nutritional Biochemistry**

**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) Explain the mechanism of oxidation of Glucose by glycolysis. Add a note on Gluconeogenesis.

OR

b) Write the biosynthesis of lipids and their metabolism.

**Unit - II**

**Q2)** a) Explain mineral metabolism.

OR

b) Discuss the role of minerals in metabolism.

**Unit - III**

**Q3)** a) Discuss the utilization of vitamins by the human body.

OR

b) Discuss the role of vitamins in metabolism.

**Unit – IV**

**Q4)** a) Explain the classification of enzymes with suitable examples. State and explain MM equation.

OR

b) What is meant by enzyme inhibition? Explain the factors influencing enzyme inhibition.

**Unit – V**

**Q5)** a) Explain human immunity system. Write about infection and immunity interaction.

OR

b) Write in detail about Electron Transport Chain.



**(DFN03)**

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**M.Sc. DEGREE EXAMINATION, MAY - 2018**

**First Year**

**FOOD & NUTRITIONAL SCIENCE**

**Functional Foods**

**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) Discuss the general market scenario of the health foods.

OR

b) Give an account on the Indian Market Potential on healthy foods.

**Unit - II**

**Q2)** a) What are Hyper nutrition foods? Write about the sources for protein powders. What are the merits and demerits of these foods?

OR

b) Write about different types of Fats. Explain Fat free foods and low cholesterol oils.

**Unit - III**

**Q3)** a) What are nutraceuticals? Write about the sources and processing of nutraceutical products.

OR

b) Write about the diabetic nuts and confectionaries explain the preparation of sugar free foods.

#### **Unit – IV**

**Q4)** a) Discuss the need and importance of sugar free foods. Explain the nutritional implications of sugar free products.

OR

b) Discuss the current market trend of artificial sweeteners and their therapeutic applications.

#### **Unit – V**

**Q5)** a) Give an account on the need and importance of food technology.

OR

b) What are modified foods? Discuss the implications of genetically modified foods by taking examples.



**(DFN04)**

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**M.Sc. DEGREE EXAMINATION, MAY - 2018**

**First Year**

**FOOD & NUTRITIONAL SCIENCE**

**Institutional Foods Service Management**

**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 about various types of Hotels, restaurants and fast food centres.

OR

b) Explain the food services available at old age homes and students' Hostels.

**Unit - II**

**Q2)** a) Give an account on the basic infrastructure and layout plan of Restaurant and the design of Kitchen.

OR

b) Discuss the operation and maintenance of Equipment in Star Hotels.

**Unit - III**

**Q3)** a) Explain the food safety in hostels and hospitals.

OR

b) Discuss the healthy and hygienic aspects in Mass distribution programmes.

**Unit – IV**

**Q4)** a) Explain the principles of cost controlling and price fixing of food items in hotels.

OR

b) Discuss the inservice training skills required to personal working in Food Service Systems.

**Unit – V**

**Q5)** a) Discuss the food catering services in Sea Transport and Rail Transport.

OR

b) Explain the Book Keeping and accounting in the Food Catering Management.

