DFN01

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (First Year) FOOD & NUTRITIONAL SCIENCES Fundamentals of Food and Nutrition

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 edible portion of food and balanced diet.
 - b) Describe the uses and limitations of ICMR and WHO.

<u>UNIT - II</u>

- Q2) a) Describe the latest concepts in dietary recommendations and RDA.
 - b) Describe the carbohydrates, its composition and classification.

<u>UNIT - III</u>

- Q3) a) Write an account on Fat soluble vitamins and their functions.
 - b) Explain deficiency disease caused by water soluble vitamins and their symptoms.

<u>UNIT - IV</u>

- Q4) a) Write an account on macrominerals, their sources and biological functions.
 - b) Explain the importance of microelements like Chromium, Iodine and Fluorine in human nutrition.

<u>UNIT - V</u>

- Q5) a) Describe, different nutrient deficiency diseases and remedial measures.
 - b) Write an account on the role of RDA in organising nutrition programmes.

DFN02

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (First Year) FOOD & NUTRITIONAL SCIENCE

Nutritional Biochemistry

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 gluconeogenesis and its importance. OR
 - b) Explain biosynthesis of lipids and their metabolism.

<u>UNIT - II</u>

Q2) a) Describe the role of minerals in metabolism.

OR

b) Describe the utilisation, factors affecting utilization of micronutrients.

<u>UNIT - III</u>

Q3) a) Write an account on the utilization of vitamins and their importance.

OR

b) Explain the factors influencing enzyme activity.

<u>UNIT - IV</u>

Q4) a) Write an account on cell mediated immunity.

OR

b) Explain the antibody and antigen reactions.

<u>UNIT - V</u>

Q5) a) Write an account on high energy compounds and their role in biological oxidation.

OR

b) Describe reduction and electron transport chain.

DFN03

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (First Year) FOOD & NUTRITIONAL SCIENCE Functional Foods

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 current market scenario of the health foods.
 - b) Explain public demand and Indian market potential of functional foods.

<u>UNIT - II</u>

- Q2) a) Describe the methods of extraction of proteins of oil seeds and legume cakes.
 - b) Describe the low cholesterol oils and cholesterol free foods.

<u>UNIT - III</u>

- Q3) a) Describe nutraceuticals, their need, importance, classification and sources.
 - b) Write an account on phenylalanine free and fibre rich foods and their implications.

UNIT - IV

- Q4) a) Explain fortification of nutrients in the processed foods and other dietary supplement and their role in health.
 - b) Describe the types and development of sugar free products and their nutritional implications.

<u>UNIT - V</u>

- Q5) a) Describe the need and importance of technologies and organisms for food biotechnology.
 - b) Write an account on genetically modified foods and their nutritional implications.

DFN04

M.Sc. DEGREE EXAMINATION, JUNE/JULY - 2019 (First Year) FOOD & NUTRITIONAL SCIENCE Institutional Foods Service Management

Time : 3 Hours

Maximum Marks: 70

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

<u>UNIT - I</u>

- *Q1*) a) Describe the tools of management, management of resources, need and importance.
 - b) Describe the types of hotels/motels and Restaurants and the type of foods served.

<u>UNIT - II</u>

- Q2) a) Write an account on the classification of equipment., selection, design and installation.
 - b) Describe the types of food, vending and mobile catering and self services.

<u>UNIT - III</u>

- **Q3**) a) Describe the laws governing food service in public catering, sanitation of food services in public catering.
 - b) Write an account on food safety in hospitals, hostels, airlines, railways and temples.

<u>UNIT - IV</u>

- **Q4**) a) Write an account on health and hygiene of personnel, food borne diseases in public catering.
 - b) Explain recruitment, selection, induction and facilities and benefits of employees.

<u>UNIT - V</u>

- Q5) a) Describe food safety in hotels, street foods industry and canteens.
 - b) Write an account on in service training skills required to operate and manage food service system.