Total No. of Questions : 5]

[Total No. of Pages : 02

(**DFN01**)

# M.Sc. DEGREE EXAMINATION, DEC. – 2016

# **First Year**

# **FOODS & NUTRITIONAL SCIENCE**

# **Fundamentals of Food and Nutrition**

Time : 3 Hours

Maximum Marks : 70

Answer All questions choosing one from each Unit  $(5 \times 14 = 70)$ 

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

**Q1**) a) What is balanced diet? How malnutrition effects the health?

#### OR

b) Explain the latest recommendations of ICMR on nutrient requirements and their uses.

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

**Q2)** a) Define carbohydrates and write their classification with examples. Explain the functions of carbohydrates in the human biological system.

#### OR

b) Explain the composition and classification of proteins. Write about essential and nonessential proteins.

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

*Q3)* a) Explain the sources and functions of vitamin A and K. Write about the symptoms and diseases caused by vitamin A and K.

#### OR

b) What are water soluble vitamins? Explain the sources and functions of vitamin B and vitamin C. Write about the diseases caused by the deficiency of vitamin 'B' and 'C'.

**Q4)** a) What are Macro minerals? Explain the sources and biological functions of sodium and calcium.

#### OR

b) Explain the assessment of requirements of Micro minerals to the human body. Discuss the importance of cobalt, iron and fluorine.

# <u>UNIT - V</u>

Q5) a) Discuss the Aims and objectives of nutrition programmes organized in India.

#### OR

b) Discuss the role and objectives of WHO in the implementation of food nutrition programmes.



Total No. of Questions : 5]

(DFN02) [Total No. of Pages : 02

# M.Sc. DEGREE EXAMINATION, DEC. – 2016

# First Year

# **FOODS & NUTRITIONAL SCIENCE**

# **Nutritional Biochemistry**

Time : 3 Hours

Maximum Marks : 70

Answer All questions choosing one from each Unit $(5 \times 14 = 70)$ Each questions carries 14 marks.

# <u>UNIT - I</u>

**Q1)** a) Explain urea cycle in detail.

#### OR

b) Explain HMP pathway in detail.

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

**Q2)** a) Discuss the micro nutrient metabolism. Write about the biosynthesis of proteins.

#### OR

b) Describe the role of minerals in metabolism. Write the interrelationship between lipid and proteins.

# <u>UNIT - III</u>

*Q3)* a) Explain vitamin metabolism in detail.

#### OR

b) Explain the utilization of micro nutrients metabolism in detail.

*Q4*) a) Explain IUB classification and MM equation

OR

b) Explain infection and immunity interactions with suitable examples.

# <u>UNIT - V</u>

**Q5)** a) Explain Electron Transport chain in biological system.

# OR

b) Explain biochemical oxidation-reduction reactions with suitable examples.



Total No. of Questions : 5]

[Total No. of Pages : 02

(DFN03)

# M.Sc. DEGREE EXAMINATION, DEC. – 2016 First Year FOODS & NUTRITIONAL SCIENCE Functional Foods

**Time : 3 Hours** 

Maximum Marks: 70

Answer All questions choosing one from each Unit Each question carries 14 marks

 $(5 \times 14 = 70)$ 

# <u>UNIT - I</u>

Q1) a) Discuss the Indian Market potential on functional health foods.

#### OR

b) What are functional foods? Discuss the merits and demerits of the functional foods.

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

**Q2)** a) Describe the methods of extraction of proteins of oil seeds.

#### OR

b) Explain the properties and applications fat free powders and their nutritional aspects.

#### UNIT - III

Q3) a) Explain the classification of nutraceuticals. Write the therapeutic applications of nutraceuticals.

#### OR

b) Write the uses of fiber rich foods and their nutritional values. Mention its implications.

Q4) a) Discuss the role and importance of Dietary supplements in the health aspects.

### OR

b) What are non-nutritive sweetners and artificial sweetners? Discuss their uses and implications with respect to nutritional values.

# <u>UNIT - V</u>

**Q5)** a) How Biotechnology is useful in food quality improving and nutrition values.

#### OR

b) Discuss the gene modification technology in food items. Write its merits and demerits.



(DFN04) [Total No. of Pages : 02

Total No. of Questions : 5]

# M.Sc. DEGREE EXAMINATION, DEC. – 2016

# **First Year**

# FOODS & NUTRITIONAL SCIENCE

# **Institutional Foods Service Management**

**Time : 3 Hours** 

#### Maximum Marks : 70

Answer all questions choosing one from each unit $(5 \times 14 = 70)$ Each question carries 14 marks

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

**Q1**) a) Discuss the need and importance of Food Service Industry.

#### OR

b) Write about the Management of various types of Hotels and Motels.

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

**Q2)** a) Discuss the welfare and safety in Hostels and old aged Homes.

#### OR

b) Explain the selection and classification of equipment in Institutional Food Services.

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

Q3) a) Discuss the plan of kitchen spaces and storage spaces in food service organisation.

#### OR

b) Discuss the laws governing Food services governing in public catering and sanitation services.

**Q4)** a) Discuss the Food Catering Services in Railways and Airlines.

#### OR

b) Discuss the Food Catering Services in Hospitals and Temples and mass feeding programmes.

# <u>UNIT - V</u>

**Q5)** a) Discuss the scope of Financial management in Food Service Organizations.

#### OR

b) Discuss the monitoring work of employees, facilities and benefits in Food Service Management.

