

M.Sc. (Previous) DEGREE EXAMINATION, MAY – 2015

First Year

FOODS & NUTRITIONAL SCIENCE

Paper - I : Fundamentals of Food and Nutrition

Time : 3 Hours

Maximum Marks: 80

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Answer all questions

Each question carries 16 marks

- 1) a) What is RDA? Explain the importance of RDA in maintaining human health.  
OR  
b) Write short notes on the following:  
i) Biological value  
ii) Scurvy
- 2) a) Explain the importance of any two micronutrients in human health.  
OR  
b) What is a balanced diet? Discuss the role of balanced diet with a suitable example.
- 3) a) What is dietary fiber? Explain its types and importance in human health.  
OR  
b) Differentiate between saturated and unsaturated fatty acids with example.
- 4) a) Describe Discuss about vitamin A Deficiency Disorder.  
OR  
b) What is PUFA? Describe the role of PUFA in human health.
- 5) a) Explain the role of national and non-governmental organizations in combating malnutrition.  
OR  
b) Explain the role of calcium and vitamin D in maintaining bone health.



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Paper - II : Nutritional Biochemistry

Time : 3 Hours

Maximum Marks: 80

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Answer all questions

Each question carries 16 marks

1) a) Explain the metabolism and importance of bile pigment.

OR

b) Write about the synthesis of the following:

i) Triglycerides

ii) Cholesterol

iii) Fatty acids

iv) Protein

2) a) Explain the biosynthesis of nucleic acids.

OR

b) What are high energy compounds? Explain their importance in biochemical and biological process.

3) a) Write the classification of enzymes and the factors influencing enzyme activity.

OR

b) Write the metabolism of vitamin A. Explain the role of thiamine in energy transformation.

4) a) What are the factors affecting utilization of minerals. Explain the role of minerals in metabolism.

OR

- b) Explain about the following:
  - i) Cell mediated immunity
  - ii) Humoral immunity

5) a) Discuss in detail about glycogenolysis and gluconeogenesis.

OR

- b) Explain the absorption of iron and discuss about the factors influencing and inhibiting iron absorption.



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Paper - III : Functional Foods

Time : 3 Hours

Maximum Marks: 80

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Answer all questions

All questions carry equal marks

1) a) Define functional foods and health foods with suitable examples. Write the importance of them.

OR

b) What are the different types and sources of protein powders and its application in human health?

2) a) Discuss about the application of artificial sweeteners in health foods. Explain the advantages and limitations of artificial sweeteners.

OR

b) Discuss the role of nutraceuticals in health and therapeutic applications.

3) a) Explain food processing improvement through biotechnology-genetically modified foods with its nutritional implications.

OR

b) Enumerate the therapeutic applications of Pharma foods.

4) a) Write the role of Probiotics in functional food Industry.

OR

b) Write the methods of utilization of legume cakes in the manufacture of protein rich foods.

5) a) What are different types of fiber? Explain its functions in maintenance of diabetes.

OR

b) Write the significance of n3 and n6 fatty acids in health foods.



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Paper - IV : Institutional Food Service Management

Time : 3 Hours

Maximum Marks: 80

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Answer all questions

All questions carry equal marks

- 1) a) Define financial and personnel management. Enumerate the scope of financial management in detail.

OR

- b) Write the basic concepts to be consider while planning a layout of work place and plan a kitchen layout with special reference to storage spaces and work feasibility.

- 2) a) Explain the following giving appropriate examples:

- i) Receiving Records in a Catering unit
- ii) Cumulative Food Cost Report
- iii) Food Production Record
- iv) Service Records

OR

- b) What is a food service system? Explain any two types of service system.

- 3) a) Write the functions of the following food service institutions.

- i) Motel
- ii) Industrial canteens
- iii) Hospitals
- iv) College hostels

OR

- b) Write about the various safety devices used in food service industries.

4) a) Enumerate the laws governing food service in public catering.

OR

b) Discuss in detail the 'storage space' highlighting the two types of food storage used in food service establishments.

5) a) Explain the need of food safety programmes to food handlers and consumers.

OR

b) Explain about the management of resources in food service Industry.

