

**PREVIOUS YEAR
QUESTION
PAPERS**

**BACHELOR OF
SCIENCE
NUTRITION AND
DIETICS**

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

Bachelor of Science (Honours) (Nutrition and Dietics) (Sem.-1)

FOOD MICROBIOLOGY & FOOD SAFETY

Subject Code : BSND-113-18

M.Code : 77210

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

- SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
- SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
- SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- Define pasteurization.
- Which scientist gave the concept of canning?
- Define the log phase.
- What is shape of coccus bacteria?
- Which acid is present in vinegar?
- What is neurotoxin?
- What are indicators of food safety?
- What do you understand by cold sterilization?
- Enlist the thermal methods for preservation of food products.
- What do you understand by personal hygiene?



SECTION-B

- Discuss briefly about the major milestones in the history of food microbiology.
- What do you understand by food spoilage? Enlist the different sources of food borne pathogens.
- Describe the fermentative production of sauerkraut.
- Discuss the principle of hurdle technology along with its applications.
- Describe the role of different physical agents in prevention of food spoilage.

SECTION-C

- Define Microbial Growth. Discuss in detail about the different extrinsic factors, which affect the microbial growth.
- Enlist different Indian fermented foods. Discuss the raw materials, microflora involved and process for the production of yoghurt along with flow diagram.
- What do you understand by salmonellosis? Which organism is responsible for it? Write detailed note on different foods involved, symptoms and preventive measures of salmonellosis.

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Bachelor of Science (Honours) (Nutrition and Dietics) (Sem.-1)

FOOD MICROBIOLOGY & FOOD SAFETY

Subject Code : BSND-113-18

M.Code : 77210

Date of Examination : 17-01-23

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

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SECTION-A

I. Write briefly :

- a) What do you understand by pasteurization?
- b) Give examples of two food borne viruses.
- c) Define generation time
- d) Define food intoxication.
- e) Enlist any four traditional fermented foods.
- f) What are the most common food hazards?
- g) What do you understand by D-value?
- h) What is the significance of food safety?
- i) What do you understand by contamination?
- j) What are the different ISO standards?



SECTION-B

2. Discuss in detail about the major milestones in the history of food microbiology and their significance.
3. Discuss in detail about the different intrinsic factors, which affect the microbial growth.
4. Discuss the various micro organisms associated with milk and milk products.
5. Explain different steps of HACCP and its significance in food industry.
6. Discuss the role of different chemical agents in microbial control.

SECTION-C

7. Define microbial growth. Discuss in detail about the various phases of microbial growth curve along with suitable sketch.
8. What do you understand by food poisoning? Explain different types of food poisoning in food systems.
9. Write short note on the following :
 - a) TQM
 - b) Hurdle Technology.

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SECTION-A

1. Write briefly :

- a) What do you understand by pasteurization?
- b) Give examples of two food borne viruses.
- c) Define generation time
- d) Define food intoxication.
- e) Enlist any four traditional fermented foods.
- f) What are the most common food hazards?
- g) What do you understand by D-value?
- h) What is the significance of food safety?
- i) What do you understand by contamination?
- j) What are the different ISO standards?



SECTION-B

2. Discuss in detail about the major milestones in the history of food microbiology and their significance.
3. Discuss in detail about the different intrinsic factors, which affect the microbial growth.
4. Discuss the various micro organisms associated with milk and milk products.
5. Explain different steps of HACCP and its significance in food industry.
6. Discuss the role of different chemical agents in microbial control.

SECTION-C

7. Define microbial growth. Discuss in detail about the various phases of microbial growth curve along with suitable sketch.
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B.Sc.Hons. (Nutrition and Dietics) (Sem.-1)

INTRODUCTION TO FOOD SCIENCE

Subject Code : BSND-112-18

M.Code : 77209

Date of Examination : 14-01-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Write about classification of food.
- b) Why food is cooked? Name methods.
- c) What constitutes carbohydrates and protein?
- d) Name six water soluble and three fat soluble vitamins.
- e) Draw tetrahedral structure of water showing bonding pattern.
- f) Write about storage requirements of rough and brown rice.
- g) Write about nutritional significance of oil seeds and nuts.
- h) How egg is graded?
- i) How fish act as source of nutrients?
- j) Give classification of meat and its composition.



SECTION-B

2. Write functions of food. What are different food groups and their role as nutrients.
3. a) Explain chemical nature of water. What are water activity and its role in food spoilage?
b) How germination changes the composition of the cereals, elaborate?
4. a) Write the beneficial effect of ripening of fruits. How over-ripening effect on quality/composition of fruits?
b) Differentiate and name climacteric and non-climacteric fruits.
5. a) Draw a schematic diagram of an egg. Write about its nutritional significance.
b) What is fish? Write about its nutritional significance.
6. Draw structure of meat/muscle. Write about its composition and nutritive value.

SECTION-C

7. a) Define milk. Write about nutritional value of fresh and fermented milk. How milk is stored.
b) Write about merits and demerits of solar cooking.
8. a) What are food emulsion and food dispersions? Elaborate role of dispersions in food structure, stability and food product development.
b) Define spices and herbs. Classify spices based on use and composition.
9. a) Define health foods, functional foods, prebiotics, probiotic, nutraceuticals, organic foods and GM foods. Write about function requirements of any three.
b) Write role of nutraceuticals as functional foods.

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Bachelor of Science-(Honours) (Nutrition and Dietics) (Sem.-1)

HUMAN PHYSIOLOGY

Subject Code : BSND-114-18

M.Code : 77211

Date of Examination : 12-01-2023

Time : 3 Hrs.

Max. Marks : 60

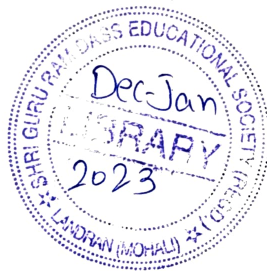
INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1. Write briefly :

- a) Fallopian tubes.
- b) auditory ossicles.
- c) ECG.
- d) Lactation
- e) Thyroid gland
- f) Basal nuclei
- g) Alveoli
- h) Nephron
- i) SER
- j) Cardiac tissue



SECTION-B

2. Draw and label the structure of neuron.
3. Write a note on reticuloendothelial system.
4. How are proteins digested in the body?
5. Draw a well labeled diagram of ear.
6. Describe the phases of menstrual cycle in detail.

SECTION-C

7. Draw a well labeled diagram of heart and discuss briefly the anatomy and working of heart.
8. Describe the anatomy of Female Reproductive System with neat labeled diagram.
9. Write different endocrine glands present in human body. Discuss the hormones of pituitary gland and their functions.

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B.Sc. Hons (Nutrition and Dietics) (Sem.-1)

PRINCIPLES OF HUMAN NUTRITION

Subject Code : BSND-111-18

M.Code : 77208

Date of Examination : 10-01-2023

Time : 3 Hrs.

Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1) Write briefly :

- a) Fair Sources of protein
- b) Deficiency of fats
- c) Rich sources of energy
- d) Metabolism of fat
- e) Major function of carbohydrates
- f) Deficiency of water-soluble vitamins
- g) Difference between minerals and vitamins
- h) Function of vitamins B12 and B6
- i) Rich Sources of magnesium and zinc
- j) Metabolism of protein.



SECTION-B

- 2) Explain deficiency and metabolism of fats.
- 3) Define protein and its metabolism in detail with specific diagram.
- 4) Write about the classification of carbohydrates and its metabolism.
- 5) Explain about the function of macro vitamins and minerals.
- 6) Define energy and its sources, deficiency and function.

SECTION-C

- 7) Explain in detail about the function, metabolism, sources and deficiency of energy.
- 8) Explain in detail about the function, metabolism, sources and deficiency of vitamin B.
- 9) Explain in detail about the function, metabolism, sources and deficiency of CHO.

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BHMCT (Sem-1)
FOOD SCIENCE & NUTRITION-I
Subject Code : BH-101
M.Code : 14501
Date of Examination : 20-06-2023

Time : 3 Hrs.

Max. Marks : 30

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE mark each.
2. SECTION-B contains FIVE questions carrying 2½ (Two and Half) marks each and students has to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying FIVE marks each and students have to attempt any TWO questions.

SECTION-A

1. Write short notes on :

- a) Carbohydrates
- b) Gelatinization
- c) Vitamins
- d) Water
- e) Obesity
- f) BMR
- g) Hollow -Calorie Food
- h) Retrogradation
- i) Energy Balance
- j) Malnutrition.



SECTION-B

2. Mention one function of each : Calcium, Iron, Sodium, Iodine and Fluorine.
3. Explain any 5 functions of Fats.
4. Classify Vitamins.
5. What are the effects of excessive intake of carbohydrates in diet?
6. Name two food sources of each :
Thiamine, Riboflavin, Niacin, Cyanocobalamin and Folic Acid.

SECTION-C

7. Define the terms Health, Nutrition and Nutrients. State importance of food in maintaining good health.
8. Illustrate the basic structure of proteins. State the properties of proteins that are useful in various food preparations.
9. What are fats and oils? Differentiate between them.

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