

<b>D-6969</b>
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<b>Sub. Code</b>
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<b>36511</b>
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DISTANCE EDUCATION

M.Sc. (Home Science, Nutrition and Dietetics) DEGREE  
EXAMINATION.

MAY 2021 EXAMINATION

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MAY 2020 ARREAR EXAMINATION

First Semester

HUMAN PHYSIOLOGY

(CBCS 2018-19 Academic Year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Enlist the parts of a prokaryotic cell.
2. List any two functions of cartilage.
3. What are plasma proteins?
4. Define ESR.
5. Mention the formula for cardiac output.
6. Give the etiological factors for female infertility.
7. Differentiate endocrine and exocrine glands.

8. Expand: EMG, MRI
9. List out any four functions of pancreas.
10. What are the causes of dyspnoea?

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, Choosing either (a) or (b).

11. (a) Highlight the functions of bone.

Or

- (b) Write a short note on structure of cytoplasm.

12. (a) Write on the blood coagulation factors.

Or

- (b) Bring out the importance of liver in digestive system.

13. (a) Explain the menstrual cycle.

Or

- (b) Discuss Fertilization

14. (a) Highlight the functions of adrenal cortex and adrenal medulla.

Or

- (b) Explain the structure and function of salivary glands.

15. (a) Brief on the functions of mitochondria

Or

- (b) Discuss the factors which influence hypertension.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Classify tissues and discuss its functions.
  17. Write in detail on the respiratory disorders.
  18. Elaborate the anatomy and functions of digestive system.
  19. Dialysis - Explain in detail.
  20. Explain the hormonal imbalance syndromes.
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<b>D-6970</b>
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<b>Sub. Code</b>
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<b>36512</b>
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DISTANCE EDUCATION

M.Sc. (Home Science, Nutrition and Dietetics) DEGREE  
EXAMINATION.

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

First Semester

NUTRITION AND HEALTH

(CBCS 2018-19 Academic Year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define malnutrition.
2. What is basal metabolic rate?
3. Mention the factors affecting maternal nutritional status.
4. List out any two hypertension disorders.
5. What is the importance of MMR vaccine?
6. What is an LBW infant?
7. Define Space nutrition.
8. Write any two objectives of Nutrient Deficiency control programme.

9. Give the RDA for a sports person.
10. Define mortality rate.

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, Choosing either (a) or (b).

11. (a) Write the different between hunger, appetite and satiety.

Or

- (b) Bring out the nutritional problem in pregnancy.
12. (a) Write short notes on Immunization schedule and pregnancy tests during pregnancy.

Or

- (b) Write short notes on nutritional requirements for the pregnant women.
13. (a) Write the difference between breast feeding and formula feeding infancy.

Or

- (b) Highlight the food habits and nutrient intake of preschool children.
14. (a) Explain in detail about physical development of school going children.

Or

- (b) Nutrition influence the academic performance for school going children-Justify.

15. (a) Explain the nutrition requirement during adolescence.

Or

- (b) Highlight the importance of Integrated Child Development Services (ICDS) Programme.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Discuss in detail about nutrition and diet in health.
17. Write in detail about nutrition in lactation.
18. Explain in detail about importance of nutrition for infancy.
19. Explain in detail about physical development, nutritional status, food habits and nutritional requirements of school going children.
20. Describe about nutrition in old age.

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<b>Sub. Code</b>
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<b>36513</b>
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DISTANCE EDUCATION

M.Sc. (Home Science – Nutrition and Dietetics) DEGREE  
EXAMINATION.

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

First Semester

ADVANCED FOOD SCIENCE

(CBCS 2018-19 Academic Year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. List any four advantages of cooking.
2. Define emulsification.
3. What are Carboxy methyl cellulose.
4. Define non-enzymatic browning.
5. Define rancidity.
6. Describe the properties of sugar.
7. Define GM foods.

8. Classify beverages.
9. What is CMC?
10. Differentiate subjective and objective evaluation.

PART B — (5 × 5 = 25 marks)

Answer ALL questions, Choosing either (a) or (b).

11. (a) Illustrate the properties of food hydrocolloids.

Or

- (b) Elucidate the procedures to monitor shelf life.

12. (a) Describe the affect of moist and dry heat on starch.

Or

- (b) Write a brief note on processing of pulses.

13. (a) Bring out the nutritional value of seaweed.

Or

- (b) Explain the methods of cheese production.

14. (a) Write the types of artificial sweetness.

Or

- (b) Highlight the role of fat in cooking.

15. (a) Illustrate the post mortem changes in meat.

Or

- (b) Enlist and illustrate the factors affecting gluten formation.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain in detail the objective evolution of foods.
  17. Give an account on effect of cooking on pigments.
  18. Elaborate the effect of heat on egg and its products.
  19. Explain the types of food additives.
  20. Write in detail on different stages of sugar cookery.
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<b>D-6972</b>
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<b>Sub. Code</b>
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<b>36521</b>
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DISTANCE EDUCATION

M.Sc (HOME SCIENCE – NUTRITION AND DIETETICS)  
DEGREE EXAMINATION.

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

Second Semester

NUTRITIONAL BIOCHEMISTRY

(CBCS – 2018-19 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Mention any four nutritional aspects of carbohydrate.
2. List out biological value of proteins.
3. Give any two chemical properties of lipids.
4. List out inborn errors of protein metabolism.
5. What is  $\beta$  oxidation?
6. Give the classification of vitamins.
7. Enlist mineral deficiency disease.

8. Write the classification of enzymes.
9. Define Co- enzymes.
10. What is buffer system.

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain any two inborn errors of carbohydrate.

Or

- (b) How are carbohydrates absorbed and digested?

12. (a) Discuss Lipid metabolism.

Or

- (b) Explain genetic disorder.

13. (a) Discuss the mechanism of enzyme action.

Or

- (b) Explain about lipid based metabolic disease.

14. (a) Discuss any two inborn-errors of lipid metabolism.

Or

- (b) Enumerate on Co-enzymes and Co-factors.

15. (a) Explain acid-bear balance.

Or

- (b) Explain the role of Insulin Hormone.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe about Glycolytic Pathway.
  17. Discuss the Physiological role of diffust buffer system.
  18. Explain the role of nutrients in maintenance of fluid and electrolyte balance during disease condition.
  19. Discuss the application of enzymes in clinical diagnosis.
  20. Explain the classification, role of vitamins and discuss any four vitamin deficiency disease.
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<b>D-6973</b>
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<b>Sub. Code</b>
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<b>36522</b>
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DISTANCE EDUCATION

M.Sc (HOME SCIENCE – NUTRITION AND DIETETICS)  
DEGREE EXAMINATION.

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

Second Semester

FUNCTIONAL FOODS AND NUTRACEUTICALS

(CBCS – 2018-19 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define Symbiosis.
2. List the types of Resistant Starch.
3. Enlist the source of Terpenoids.
4. Define Haemogletamns.
5. Define CLA.
6. What is a Nutraceutical?
7. Describe the functions of Lycopene.

8. What is Lecithin?
9. What are the nutraceutical components in green tea?
10. List the properties of Melatonin.

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Write a short note on Probiotics.

Or

- (b) Bring out the sources and functions of Non-digestible carbohydrates.

12. (a) Describe the health effects of Alkaloids on Human Health.

Or

- (b) Elustrate the types of antinutrients in food.

13. (a) Bring out the Non–Nutrient effects of proteins and peptides.

Or

- (b) Give an account on influence of nutraceutical in medicine.

14. (a) Describe the uses of pro anthocyanidins as nutraceuticals.

Or

- (b) Write a brief note an Anti–aging nutraceutical.

15. (a) Write the role of Hypoglycemic nutraceutical in diabetes.

Or

- (b) Elustrate the nutraceutical remedies for liver-disorder.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe the effect of following plant metabolites on human health.
- (a) Glucosinolates
  - (b) Terpenoids.
  - (c) Phendics
17. Give an account on nutraceutical in the treatment of cognitive disorder.
18. Write in detail on scope and future aspects of nutraceutical in science.
19. Bring out the relation of nutraceutical in food technology and nutrition.
20. Elustrate the nutraceutical remedy for Nephrological disorder.

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<b>Sub. Code</b>
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<b>36523</b>
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DISTANCE EDUCATION

M.Sc. DEGREE EXAMINATION.

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

Second Semester

Home Science Nutrition And Dietetics

FOOD SERVICE MANAGEMENT

(CBCS – 2018-19 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is segmentation?
2. List out the different types of food service industry.
3. What is Lighting?
4. Mention the various types of Lighting.
5. What is straight line Kitchen?
6. Define Modular Kitchen.
7. List out heavy weight equipment.

8. Mention conventional source of energy.
9. What is vending machine?
10. Define Marketing mix?

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the various types of flooring and wall covering in kitchen layout.

Or

- (b) Write a note on the process of menu planning for patients.

12. (a) Explain the principles of effective management in hospital food service industry.

Or

- (b) Discuss the different tools of management.

13. (a) Write a note on care and maintenance of equipment.

Or

- (b) Explain the different types of menu.

14. (a) Differentiate conventional and non conventional sources of energy.

Or

- (b) Discuss the various steps on standardization of recipes.

15. (a) Write a note on safety food handling practices.

Or

- (b) Discuss the benefits of using computer applications in maintaining dietary accounts.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. What is dietary accounting? Elaborate on the principles of dietary accounting.
  17. Define marketing. Discuss the functions and promoting of newly developed based products in the market.
  18. Explain the various styles of service.
  19. What is communication? Discuss the various types of communication.
  20. Enumerate on the types, Organization structure and management in food service industry.
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**D– 6975**

**Sub. Code**

**36531**

DISTANCE EDUCATION  
M.Sc. DEGREE EXAMINATION.  
MAY 2021 EXAMINATION  
&  
MAY 2020 ARREAR EXAMINATION  
Third Semester  
Home Science–Nutrition and Dietetics  
CLINICAL AND THERAPEUTIC NUTRITION  
(CBCS 2018-19 Academic Year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are essential micronutrients?
2. How do you assist feeding a patient?
3. What are the different hospital diets?
4. What does enteral feeding mean?
5. What foods stop you from getting pregnant?
6. What happens if you have tuberculosis?
7. What does indigestion feel like?
8. How does a person get colitis?

9. What causes nephrosis?
10. How is a food allergy diagnosed?

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, Choosing either (a) or (b).

11. (a) Can you make a distance between light diet and soft Diet?

Or

- (b) Will you interpret on Transitional Feeding protocol for Critically ill Patients?

12. (a) Can you elaborate on typhoid and Rheumatic fever?

Or

- (b) Can you predict the outcome if constipation and flatulence occurs?

13. (a) What inference can you make on dietary regimen in cirrhosis?

Or

- (b) What is the main cause of gout?

14. (a) Mention briefly about chronic glomerulonephritis.

Or

- (b) How do you get tested for food allergies?

15. (a) What evidence can you find from multi organ failure?

Or

- (b) Give an account on phenylketonuria.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. What inference can you make professional ethics and obligations of a dietitians?
17. How would you explain the Factors That influence our Food Choices?
18. Will you interpret what is happening on cancer of oral cavity?
19. Can you list the contributory factors and dietary modification of renal disorders?
20. Can you make a distinction between respiratory failure and hepatic failure?

<b>D-6976</b>
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<b>Sub. Code</b>
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<b>36532</b>
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DISTANCE EDUCATION

M.Sc. (HOME SCIENCE – NUTRITION AND DIETETICS)  
DEGREE EXAMINATION.

MAY 2021 EXAMINATION

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MAY 2020 ARREAR EXAMINATION

Third Semester

DIETETICS IN LIFE STYLE DISEASES

(CBCS 2018-19 Academic Year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What are the main signs of stress?
2. Does anxiety affect your memory?
3. How do you manage nutrition?
4. Who is at risk for obesity?
5. At what BMI do your organs fail?
6. What is artificial sweetener made of?
7. What is a lipid disorder?
8. What causes angina pectoris?

9. Does chemotherapy shorten your life?
10. What does dysphagia feel like?

PART B — ( $5 \times 5 = 25$  marks)

Answer ALL questions, Choosing either (a) or (b).

11. (a) Discuss about stress enhancing food and anti-stress food.

Or

- (b) How would you describe the biological effects of stress on brain?

12. (a) Will you state the weight reduction techniques?

Or

- (b) How Adipose tissue is formed? What are functions of adipose tissue?

13. (a) What changes would you make to solve Diabetes Insipidus?

Or

- (b) Describe what are the risk factors of cardiovascular diseases.

14. (a) What inference can you make on bone marrow transplantation?

Or

- (b) Can you explain the dietary management myocardial infraction?

15. (a) How would you clarify the main causes of Cachexia?

Or

- (b) Will you state the role of food in the prevention of cancer?

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe the biological effects of stress on respiratory system and Immune system.
17. How would you determine the causes, complications, dietary and life style management of diabetes mellitus?
18. Will you state the disease progression, causes, symptoms and clinical findings of Hypertension?
19. Can you make a distinction between chemotherapy, radiation therapy and Immuno therapy?
20. Discuss the nutritional management in musculo skeletal system.
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<b>Sub. Code</b>
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<b>36533</b>
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DISTANCE EDUCATION  
M.Sc. DEGREE EXAMINATION.

MAY 2021 EXAMINATION

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MAY 2020 ARREAR EXAMINATION

Third Semester

Home Science – Nutrition and Dietetics

COMMUNITY NUTRITION

(CBCS 2018-19 Academic Year onwards)

Time : 3 hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. How do you assess nutritional status of a child?
2. What are nutritional problems?
3. Why is anthropometry important?
4. What food is best for malnutrition?
5. What are nutritional interventions?
6. What does a school nutrition specialist do?
7. What is agricultural planning?
8. Which International organization is involved in community nutrition?

9. What is microbial spoilage of food?
10. How can we reduce food spoilage?

PART B — (5 × 5 = 25 marks)

Answer ALL questions, Choosing either (a) or (b).

11. (a) How would you explain the Nutritional status of an Individual and Community?

Or

- (b) Can you list the biochemical methods of Nutritional assessment?
12. (a) Will you interpret the Iodine deficiency nutrition disorder?

Or

- (b) What approach would you use to overcome malnutrition in India?
13. (a) What is the role of food technology in Nutrition intervention programmes?

Or

- (b) Can you able to explain any two National Organizations concerned with food and nutrition?
14. (a) How would you evaluate the Nutritional Education Programmes?

Or

- (b) Write the Nature and importance of Nutrition Education.

15. (a) Can you elaborate about the White Revolution in Food Production?

Or

- (b) When, Whom and Who is teach about Nutrition Education?

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Will you state aetiology, prevalence, symptoms and preventive measures of Protein Energy Malnutrition (PEM)?
17. What inference can you make on operation of Nutrition intervention programmes organized by Governmental agencies?
18. Can you make a distinction of WHO, FAO, UNICEF and CWS?
19. How would you classify about GREEN, BLUE and YELLOW revolution of Food Production?
20. Write a brief review of losses of foods in the Post-harvest period and agents causing food spoilage.

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<b>Sub. Code</b>
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<b>36541</b>
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DISTANCE EDUCATION

M.Sc. (Home Science-Nutrition and Dietetics) DEGREE  
EXAMINATION

MAY 2021 EXAMINATION

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MAY 2020 ARREAR EXAMINATION

Fourth Semester

PAEDIATRIC NUTRITION

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define Infancy.
2. What is the purpose of anthropometric measurements?
3. Short note on infants Immunization.
4. Define abdominal distension.
5. Write short note on premature baby.
6. Short note on Jaundice.
7. Bring out difference between short term and long term consequences in infants.
8. Give the notes on deficiency of typhoid.

9. What is Autism?
10. Define – Plotting growth of infants.

SECTION B — (5 × 5 = 25 marks)

Answer ALL questions, choosing either (a) or (b).

11. (a) Explain the physiological development of infancy.

Or

- (b) Comment on immunization schedule during infancy.

12. (a) Describe the low birth weight babies.

Or

- (b) Explain the respiratory distress in infants.

13. (a) Write short notes on seizures of sick new-born.

Or

- (b) Describe the Vitamin A deficiency.

14. (a) Describe the underweight nutrition.

Or

- (b) Comment on Diarrhea.

15. (a) Write an essay about attention deficit hyperactivity disorder.

Or

- (b) Write a brief account on AIDS.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE out of Five.

16. Explain nutritional and food requirements for infants.
  17. Discuss the detailed notes on clinical and dietary data of infants.
  18. Write short note on nutritional management in malnutrition. (a) Scurvy (b) Vitamin A deficiency
  19. Write detailed account on constipation and fat absorption diet test on infants.
  20. Discuss in detail on inflammatory bowel disease.
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<b>D-7362</b>
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<b>Sub. Code</b>
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<b>36542</b>
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DISTANCE EDUCATION

M.Sc. (Home Science) (Nutrition and Dietetics) DEGREE  
EXAMINATION

MAY 2021 EXAMINATION

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MAY 2020 ARREAR EXAMINATION

Fourth Semester

FOOD MICROBIOLOGY AND SANITATION

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What is the purpose of studying the morphology of bacteria?
2. Does pH significantly affect yeast growth in media?
3. Health effects of moulds.
4. Phage Therapy.
5. Freezing.
6. Asepsis.
7. Intoxication.
8. Nutrition labeling.

9. Consumer protection act, 1986.
10. Define the WHO.

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) What is yeast? Explain the morphology and classification of yeast.

Or

- (b) Explain about the industrial importance of yeast.

12. (a) Give short notes on common household moulds in relation to food science.

Or

- (b) Explain about the general principles underlying food spoilage.

13. (a) Write an account on General principles of food preservation.

Or

- (b) Give an account on Bureau of Indian standards in food industry.

14. (a) Write an account on contamination, spoilage, preservation and control of microorganisms in fruits and vegetables.

Or

- (b) Give an account on microbiology of cereals and cereal products.

15. (a) Explain about the microbial contamination in fleshy foods, poultry and fish.

Or

- (b) Give short note on types of biological spoilage of canned foods.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. What are moulds? Explain the morphology, physiology and multiplication, significance of moulds.
17. Write detail account on discovery, morphology, reproduction and its importance of bacteriophages.
18. What is food packaging? Write detail account on food packaging methods.
19. Give an account on International standards in food industry.
20. Explain in detail about the food sanitation and safety.
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<b>D-7363</b>
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<b>Sub. Code</b>
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<b>36543</b>
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DISTANCE EDUCATION

M.Sc. (Home Science-Nutrition and Dietetics) DEGREE  
EXAMINATION

MAY 2021 EXAMINATION

&

MAY 2020 ARREAR EXAMINATION

Fourth Semester

FOOD BIOTECHNOLOGY & BIOSTATISTICS

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 2 = 20 marks)

Answer ALL the questions.

1. What fruits are genetically modified?
2. Write the examples of fermentation.
3. What are the types of bioreactors?
4. What are food enzymes?
5. What are the best foods to detox your body?
6. What is the constituent element of acidulant?
7. What are the benefits of eating fermented foods?
8. What is the purpose of bio statistics?

9. What is a histogram used for?
10. Why is tabulation of data important?

SECTION B — ( $5 \times 5 = 25$  marks)

Answer ALL the questions, choosing either (a) or (b).

11. (a) What are the 3 types of fermentation?

Or

- (b) What are the methods of enzyme immobilization?

12. (a) Write the production and process of single cell protein.

Or

- (b) Discuss the role of immobilized enzymes and isomerase in food industry.

13. (a) Illustrate about the production of microbial protein.

Or

- (b) Describe about the role of lactic acid food industries.

14. (a) Write the methods of collection of primary and secondary data.

Or

- (b) Mention briefly about the data presentation methods.

15. (a) Write the methods of securing accuracy in tabulation.

Or

- (b) Illustrate the importance of distributions in statistical studies.

SECTION C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe about Bioprocess control.
  17. Elaborate about the culture and process of spirulina and mushroom.
  18. Illustrate the impact of bio technology on the nutritional quality of foods.
  19. Discuss about representative sample, sample size, sampling bias and sampling techniques.
  20. Describe about analysis of variance and it's applications.
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