

<b>D-6601</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, DECEMBER 2024.**

**First Semester**

**HUMAN PHYSIOLOGY**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. Define Cell.
2. Draw the diagram of Cell wall.
3. Who discovered cell?
4. What is the origin of nervous tissue?
5. Which is the largest joint in the human body?
6. Does vitamin D Help cartilage?
7. What deficiency causes joint pain?
8. What are early warning signs of thyroid problems?
9. What are the types of reproductive system?
10. Why do Type two diabetics take insulin?

PART B — ( $5 \times 5 = 25$  marks)

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

11. (a) What are the structural features of prokaryotic cells?

Or

- (b) What is the relationship between cell membrane and cell wall?

12. (a) Explain about the structure and functions of Nucleolus.

Or

- (b) Explain in detail about role of Endoplasmic reticulum.

13. (a) Describe in detail about functions of Golgi complex.

Or

- (b) Discuss about the structure and functions of Vacuoles.

14. (a) Elaborate the structure and composition of Connective tissue.

Or

- (b) Elaborate the histology of lung and trachea.

15. (a) Illustrate the structure and function of pituitary gland.

Or

- (b) Write the structure and function of Uterus.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Outline briefly about the physiology of Cytoplasm.
  17. Describe about the structure and functions of Neurons
  18. Outline the structure and functions of female reproductive organ.
  19. What are MRI scans, and what are their uses?
  20. Elaborate in detail about the Hormonal imbalance Syndrome.
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**D-6602**

**Sub. Code**

**36513**

**DISTANCE EDUCATION**

**M.Sc. (Home Science – Nutrition and Dietetics) DEGREE  
EXAMINATION, DECEMBER 2024.**

**First Semester**

**ADVANCED FOOD SCIENCE**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. State Food in relation to health.
2. List the advantages of moist heat cooking.
3. Define emulsification.
4. State the denaturation property of protein.
5. List the Nutritive value of Millets.
6. Name few fruits and vegetable undergo enzymatic browning reactions.
7. How to detect egg spoilage?
8. Define khoa.
9. List the classification of beverages.
10. Define food additive.

PART B — ( $5 \times 5 = 25$  marks)

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

11. (a) Illustrate the caramelization and crystallization of carbohydrates.

Or

- (b) Explain about hydrocolloids.

12. (a) Summarize the quality attributes of food.

Or

- (b) Discuss the role of non starch polysaccharides.

13. (a) Describe the role and nutritive value of breakfast cereals.

Or

- (b) Write about the importance of protein in infant's foods.

14. (a) Explain the Post-harvest changes of fruits.

Or

- (b) Write about the composition and nutritive value of meat and fish.

15. (a) Discuss the Composition, physical and functional properties of ice creams.

Or

- (b) Illustrate the needs and types of food additives.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. What is Gluten? Explain the factors affecting gluten formation.
  17. Discuss the objective evaluation of foods.
  18. Describe the effect of cooking on pigments and nutrients of vegetables and fruits.
  19. Explain the properties and nutritive value of butter, paneer and cheese.
  20. Elaborate on stages of sugar cookery.
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<b>D-6605</b>
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<b>Sub. Code</b>
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<b>36523</b>
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**DISTANCE EDUCATION**

**M.Sc. (Home Science – Nutrition and Dietetics) DEGREE  
EXAMINATION, DECEMBER 2024.**

**Second Semester**

**FOOD SERVICE MANAGEMENT**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. List any two scope of food industry.
2. What are the equipment required for physical facilities and layout?
3. What are the types of food Purchasing?
4. What are good quality of Leadership?
5. What are the tools of food management?
6. Define menu planning.
7. How will you store the food after purchasing?
8. What is self service?
9. Mention the Importance of communication for human resource management.
10. Define marketing.

PART B — ( $5 \times 5 = 25$  marks)

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

11. (a) Write about the types of organization.

Or

- (b) Explain about the types of kitchen.

12. (a) What are the objective and importance of receiving raw materials?

Or

- (b) Illustrate the Menu planning for patients.

13. (a) Explain the tools of food management.

Or

- (b) State about the different types of menu.

14. (a) Write a note on standardization and portion control.

Or

- (b) Explain about Safe food handling practices.

15. (a) What are the steps involved in the performance appraisal process? Explain in detail.

Or

- (b) Explain the principles of dietary accounting.



PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Explain in details on organization and administration of food service industry.
  17. Discuss the different methods of holding foods for service.
  18. Explain about menu planning with example.
  19. Explain the different Styles of food service.
  20. Discuss the concept and process of marketing.
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<b>D-6606</b>
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<b>Sub. Code</b>
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<b>36531</b>
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**DISTANCE EDUCATION**

**M.Sc. (Home Science – Nutrition and Dietetics) DEGREE  
EXAMINATION, DECEMBER 2024.**

**Third Semester**

**CLINICAL AND THERAPEUTIC NUTRITION**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. Psychopathology.
2. Parental feeding.
3. Rheumatic fever.
4. Esophagitis.
5. Colitis.
6. Cirrhosis.
7. Hyperthyroidism.
8. Hepatic failure.
9. Neurosurgery.
10. Food allergy.

PART B — (5 × 5 = 25 marks)

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

11. (a) Highlight the assessment of patient's needs.

Or

- (b) Write a note on the importance of routine hospital diets.

12. (a) Highlight celiac disease. What are the foods avoided in this condition?

Or

- (b) How is made diet for tropical sprue?

13. (a) Brief out the diet preparation for pancreatic disorders.

Or

- (b) Write a note on dietary regimen in cirrhosis.

14. (a) Differentiate between nephritis and nephrosis.

Or

- (b) How are kidney stones formed?

15. (a) List out the diet in Parkinson's disease.

Or

- (b) Explain the role of 'fibre' in the prevention of intestinal diseases.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Elaborate the responsibilities of a dietitian and prerequisites to become a registered dietitian.
  17. Illustrate the composition, monitoring and complications of enteral and parental feeding in hospital.
  18. Bring out the nutritional requirements for Dengue fever patients.
  19. Write in detail on day's diet for an executive suffering from peptic ulcer.
  20. Explain in detail on different kinds of elimination diets used for detecting food allergy.
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<b>D-6607</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, DECEMBER 2024.**

**Third Semester**

**DIETETICS IN LIFE STYLE DISEASES**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. What are the difference between hyper and hypotension?
2. Define DASH diet.
3. How the stress causes of Premenstrual syndrome?
4. What is meant by non-vital organs?
5. What are the primary symptoms of heart attack?
6. Which is causing factor of type two diabetes mellitus?
7. Define myocardial infarction.
8. What is the role of pancreatic beta cells?
9. Given an example of artificial sweetener.
10. Which cases need the importance of angioplasty?

PART B — ( $5 \times 5 = 25$  marks)

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

11. (a) Explain shortly about the risk factors of hypercholesterolemia.

Or

- (b) Describe about the causes of underweight and its dietary management.

12. (a) Write about the classification of blood lipids and its functions.

Or

- (b) Give short notes about the importance of insulin for controlling diabetes.

13. (a) List out the important tests for regular health assessment of diabetic patients.

Or

- (b) Explain about the risk of cardiac arrest and its primary symptoms.

14. (a) Mention about the causes and complications of hypertension.

Or

- (b) Describe about the factors affecting the beta cell-based insulin secretions.

15. (a) Write about the difference between heart attack and myocardial infarction.

Or

- (b) Discuss about the major nutrients prescribed for reducing overweight.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Detail about the dietary management in angina pectoris.
  17. Elaborate notes on adipose tissues involved in regulation of weight.
  18. Explain about the nutritional problems and complications of lungs failure.
  19. Write about the brief understanding of the nutritional evaluation of heart surgery.
  20. Brief account about the dietary management of enhancing function of pancreatic cells.
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**D-6608**

**Sub. Code**

**36533**

**DISTANCE EDUCATION**

**M.Sc. (Home Science – Nutrition and Dietetics) DEGREE  
EXAMINATION, DECEMBER 2024.**

**Third Semester**

**COMMUNITY NUTRITION**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. Write down Vitamin A deficiency disorder.
2. Symptoms of Marasmus.
3. What is the impact of malnutrition during pregnancy?
4. What are the four types sanitation?
5. Write down importance of environment sanitation.
6. Define PEM.
7. Iodine deficiency disorder.
8. Write Central Social Welfare Board Functions and Activities.
9. Explain in detail about ICARM.
10. Define Bio-nutrition.



PART B — ( $5 \times 5 = 25$  marks)

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

11. (a) Explain two nutritional disorders with example.

Or

- (b) Details about the types and methods diet survey.

12. (a) Malnutrition – Causes and Factors.

Or

- (b) How to enhance the nutritional status of a community?

13. (a) Explain any two nutritional disorders with example.

Or

- (b) How can we prevent and control malnutrition and micronutrient deficiencies?

14. (a) Short notes on UNICEF.

Or

- (b) Summarize the scope of nutritional education.

15. (a) Describe notes the main objectives of agriculture relation in nutrition.

Or

- (b) Briefly mention about blue revolution.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Describe about classifications of PEM symptoms and preventive measures.
17. How to manage malnutrition integrated approach to solve problems in India?

18. Mention briefly about the features of national nutrition policy.
  19. Illustrate about the objectives three revolution in nutrition.
  20. Write short notes on any four of the following :
    - (a) Complementary foods for children of six months to one year of age.
    - (b) Digestion of food in our body.
    - (c) Risk factors of obesity.
    - (d) Steps involved in planning balanced diets.
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**D-6609**

**Sub. Code**

**36541**

**DISTANCE EDUCATION**

**M.Sc. (Home Science – Nutrition and Dietetics) DEGREE  
EXAMINATION, DECEMBER 2024.**

**Fourth Semester**

**PAEDIATRIC NUTRITION**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. Define – Dietary data.
2. Differentiate the term Infancy and children.
3. Spell out the Reasons for low birth weight babies.
4. What is cyanosis?
5. What is meconium?
6. List the types of anemia.
7. Explain – TB.
8. Define – Lactose Intolerance.
9. Expand ADH.
10. List the measuring methods of infants growth.

PART B — (5 × 5 = 25 marks)

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

11. (a) How will you assess the biochemical parameter for growth and development of an infant?

Or

- (b) Discuss the immunization schedule for pregnant women.

12. (a) Write the identification measures of newborn sickness.

Or

- (b) Discuss the nutritional management for premature baby.

13. (a) Explain the impact of Vitamin-A deficiency in children.

Or

- (b) Write a short note on typhoid.

14. (a) How will you prevent obesity in childhood? Explain the causes of childhood obesity.

Or

- (b) What is Autism? Give its nutritional management.

15. (a) Explain about inflammatory bowel disease.

Or

- (b) Write a short note on Epilepsy.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Enumerate the various methods of nutritional assessment.
  17. Explain the different types of infant feeding methods.
  18. Discuss the common signs and symptoms of hepatitis in infants. State its dietary management.
  19. Elaborate the term PEM.
  20. Write the nutritional management for GI tract diseases in children.
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<b>D-6610</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, DECEMBER 2024.**

**Fourth Semester**

**FOOD MICROBIOLOGY AND SANITATION**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL questions.**

1. Define Microbiology.
2. What is Bacteriophage?
3. Mention the significance of mould.
4. Define asepsis.
5. Comment on general principles of food preservation.
6. What is contamination?
7. Comment on Microbiology of fleshy foods.
8. What is causes of spoilage?
9. Comment on food packaging
10. Expand AGMARK.

PART B — (5 × 5 = 25 marks)

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

11. (a) Define bacteria. Explain the morphology and cultural characteristics.

Or

- (b) Explain the general morphology of yeast.

12. (a) What is contamination? Explain the contamination of food from external sources.

Or

- (b) Write a short note on :

- (i) Low temperature
- (ii) High temperature.

13. (a) Give a brief account on the Microbiology of fruits.

Or

- (b) Explain briefly about cereal and cereal products.

14. (a) What is spoilage? Note on appearance of the unopened container.

Or

- (b) Describe the spoilage of cereal and cereal products.

15. (a) Give a brief note on personal hygiene.

Or

- (b) Explain the nutrition labeling and nutrition claims.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Define Microbiology. Explain about the fundamentals of microbiology.
  17. Explain the classification and industrial importance of yeast.
  18. Give an account on general principles of food preservation.
  19. Discuss about spoilage of canned foods.
  20. Explain in detail about the spoilage and preservation of vegetables and fruits.
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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, DECEMBER 2024.**

**Fourth Semester**

**FOOD BIOTECHNOLOGY AND BIOSTATISTICS**

**(CBCS 2018–2019 Academic Year Onwards)**

**Time : Three hours**

**Maximum : 75 marks**

**PART A — (10 × 2 = 20 marks)**

**Answer ALL the questions.**

1. What is the importance of food?
2. Which is the most common errors of carbohydrate metabolism?
3. Who discovered protein?
4. Define: Haemagglutinins.
5. Write the classification of vitamins.
6. What are the symptoms of lack of minerals?
7. Enzymes: definition and function.
8. What grain has the highest protein?
9. What is the meaning of ogive shape?
10. Write the advantages of mean absolute deviation.

PART B — ( $5 \times 5 = 25$  marks)

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

11. (a) Describe about the sources of Carbohydrates.

Or

- (b) Why are carbohydrates the most important nutrient?

12. (a) Explain in detail about the Classification of Proteins.

Or

- (b) Elaborate about the anemia.

13. (a) Discuss about the structure and function of nucleic acids.

Or

- (a) Describe about biological importance of minerals.

14. (a) Write the mechanism of enzyme action.

Or

- (b) Explain in detail about permitted preservatives in food.

15. (a) Detail about advantages of mode.

Or

- (b) Discuss in detail about the F tests.

PART C — ( $3 \times 10 = 30$  marks)

Answer any THREE questions.

16. Mention briefly about Carbohydrate Metabolism Disorders.
  17. Schematic diagram showing the main components of a biosensor.
  18. Explain in detail about the Hormone deficiency diseases.
  19. Elaborate the types and advantages of fermentation.
  20. Elaborate briefly about the types and application of histogram.
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