

D-1648

Sub. Code

36511

DISTANCE EDUCATION

M.Sc. (Home Science - Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.

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. Who discovered the cell? What is inside the cell?
2. What is the difference between a nucleus and nucleolus?
3. What are symptoms of small intestine problems?
4. What factors affect urine formation?
5. Where are the ceruminous glands situated?
6. What are the main organelles for prokaryotes?
7. What is an interesting fact about ribosomes?
8. What is the main function of cartilage?
9. How do you balance electrolytes in your body?
10. What are the four functions of the female reproductive system?

PART B — (5 × 5 = 25 marks)

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

11. (a) What is the structure and function of the cytoplasm?

Or

- (b) Highlight the functions of lysosomes.

12. (a) Analyze the classifications of connective tissue.

Or

- (b) Write a note on Haemoglobin.

13. (a) Write the importance of liver in digestive system.

Or

- (b) List the Important indices of RBC and WBC.

14. (a) Explain about the resuscitation methods.

Or

- (b) How is artificial kidney different from normal kidney?

15. (a) Elaborate about the Gland secretion syndrome.

Or

- (b) Describe about automatic nervous system.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Summarize the Structural organization and functions of intracellular organelles.
 17. Write the general features and classifications of connective tissues.
 18. Describe the Techniques to identify cardiovascular disorders.
 19. Write the mechanism of action hormones.
 20. Explain the different types of sense organs.
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D-1649

Sub. Code

36512

DISTANCE EDUCATION

M.Sc. (Home Science, Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.

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. What do you mean appetite?
2. Expand ICMR and RDA.
3. Define gestational diabetes.
4. What is iron deficiency anemia?
5. Define Immunization.
6. What is Osteoporosis?
7. Mention RDA suggested for lactating mother.
8. Write any two importance's of ICDS.
9. Mention any two psychological changes in adolescents.
10. Write hormonal changes during menopause.

PART B — (5 × 5 = 25 marks)

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

11. (a) Given an account of balanced diet.

Or

- (b) Describe-Factors affecting maternal nutritional status.

12. (a) Briefly explain about weight gain during pregnancy.

Or

- (b) Explain the ICMR recommended dietary allowances for pregnant women.

13. (a) Explain in detail about problems of breast feeding.

Or

- (b) Elucidate the feeding methods for premature infants and Low Birth Weight infants.

14. (a) Explain the interventions to prevent malnutrition among preschoolers.

Or

- (b) What are the general nutritional problems of women?

15. (a) Bring out the nutritional problems in old age.

Or

- (b) Explain the requirements of fluids and food for sports person.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions out of Five.

16. Elaborate the nutritional requirements for pregnancy women.
 17. Discuss in detail about growth and development of preschool children.
 18. Write in detail on nutritional requirements and physiological adjustments during lactation.
 19. How the nutrition involved changes of growth, sexual maturity and physiological change - Explain in detail.
 20. Explain the objectives and function of Nutrition deficiency control programme.
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D-1650

Sub. Code

36513

DISTANCE EDUCATION

M.Sc. (Home Science – Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.

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. What is food science?
2. What are the quality attributes of food?
3. What are cereals and millets?
4. Define CMC.
5. Explain the role of soy products.
6. What are the nutritive values of shrimp?
7. Differentiate between ghee and butter.
8. What are the beverages?
9. What do you understand by artificial sweeteners?
10. Explain some types of food additives.

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain the roles of proteins and carbohydrates in altering the functional properties of food.

Or

- (b) Give a brief account of the evaluation of food quality.

12. (a) Explain parboiling and pectic substances.

Or

- (b) Explain flesh foods. Elaborate on the composition and post-mortem changes in meat.

13. (a) Write short notes on the nutritive value of nuts and oilseeds.

Or

- (b) Write an account on browning reactions.

14. (a) Write short notes on the nutritive value of paneer and cheese.

Or

- (b) Explain rancidity and salad dressing.

15. (a) Write a short note on sugar and sugar-related products.

Or

- (b) What do you understand about food safety?

PART C — (3 × 10 = 30 marks)

Answer any THREE out of Five.

16. Explain the quality attributes of food. Mention the types of sensory tests.
 17. Discuss in detail the nutritive value of cereals and millets. Explain cereal cookery and gluten.
 18. Explain the nutritive value of marine foods with examples.
 19. Write a note on beverages and elaborate on their classification, nutritional significance, and energy value.
 20. Write a detailed account of genetically modified foods (GM). Explain the production and nutritive value of GM foods.
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Sub. Code

36521

DISTANCE EDUCATION

**M.Sc. (Home Science-Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.**

Second Semester

NUTRITIONAL BIOCHEMISTRY

(CBCS 2018 – 2019 Academic Year Onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. Define Transamination.
2. What are the main digestive enzymes?
3. How much protein should we eat per day?
4. What are the disorders of protein metabolism?
5. What are the diseases associated with lipids?
6. What is a positive nitrogen balance?
7. Define -Sickle cell anemia.
8. What are the fat soluble vitamins and what does this mean?
9. Write the components of nucleic acids.
10. Define holoenzyme and apoenzyme.

PART B — (5 × 5 = 25 marks)

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

11. (a) Elaborate the Inborn error of protein metabolism.

Or

- (b) Write down the nutritional aspects of carbohydrates.

12. (a) Interpret the role of vitamins in metabolism.

Or

- (b) Describe about Mineral deficiency diseases.

13. (a) Explain in detail about β Oxidation.

Or

- (b) Write the Mechanism of enzyme action.

14. (a) Write the structure and functions of RNA.

Or

- (b) Hormone deficiency diseases.

15. (a) Write the physiological role of different buffer system.

Or

- (b) Write the overview of protein synthesis

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Mention about the role of minerals in the human body.

17. Describe about urea cycle and its clinical significance.

18. Write the synthesis, storage and release of hormones.
 19. Discuss the diseases of electrolyte balance.
 20. Elaborate the application of enzymes in clinical diagnosis.
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D-1652

Sub. Code

36522

DISTANCE EDUCATION

M.Sc. DEGREE EXAMINATION, DECEMBER 2021.

Second Semester

Home Science – Nutrition and Dietetics

FUNCTIONAL FOODS AND NUTRACEUTICALS

(CBCS 2018 – 2019 Academic year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. What is a nutrient?
2. Define synbiotics.
3. What is resistant starch?
4. Plant metabolites.
5. Define antinutrients with examples.
6. Mention the role of spices and condiments.
7. List out the properties of nutraceuticals.
8. What is the role of *Garcinia cambogia*?

9. Give some examples of nutraceutical rich supplements.
10. Mention the nutraceutical remedies for osteoporosis.

PART B — (5 × 5 = 25 marks)

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

11. (a) Distinguish between nutrient and non-nutrient.
Or
(b) Give a brief account on the taxonomy of probiotic microorganisms.
12. (a) Write short notes on the chemistry and bioavailability of terpenoids.
Or
(b) Write an account on protease and lipase inhibitors.
13. (a) Write short notes on historical perspective of nutraceuticals.
Or
(b) Elucidate the classification of nutraceuticals.
14. (a) Elaborate on the structure and functions of melatonin and carnitine.
Or
(b) List out the properties of glucosamine and lycopene.
15. (a) Write an account on nutraceutical in the treatment of cognitive disorders.
Or
(b) Explain the medicinal plant-derived nutraceuticals for anti-inflammatory compounds.

PART C — (3 × 10 = 30 marks)

Answer any THREE out of Five questions.

16. Discuss the mechanism of action and health effects of probiotics.
 17. Write a note on the quality assurance and safety of probiotics
 18. Describe the scope and future prospects of nutraceuticals.
 19. Explain the applied aspects of nutraceuticals science with food technology and medicine.
 20. Write an account on nutraceutical remedies for hypoglycemia and circulatory problems.
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36523

DISTANCE EDUCATION

**M.Sc. (Home Science, Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.**

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 questions.

1. Define- Food service organization.
2. What is a kitchen layout?
3. What are things we consider in buying and eating food?
4. Is it a legal requirement to have an extractor fan in kitchen?
5. How can food service be improved?
6. Why do we need non conventional sources of energy?
7. Can a person with schizophrenia act normal?
8. Do restaurants use cash or accrual accounting?
9. How do you promote a food brand?
10. What is the role of a human resource manager?

PART B — (5 × 5 = 25 marks)

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

11. (a) Given account on four types of food service system.

Or

- (b) What are important when designing the layout of a restaurant kitchen?

12. (a) Write a note an organizational structure of a hospital.

Or

- (b) What are the service equipments in a hotel? Explain.

13. (a) Brief on purpose of accessories and decoration in food service.

Or

- (b) Write short notes on food sanitation and hygiene.

14. (a) Highlight the importance of human resource management and its functions.

Or

- (b) Bring out the stages in the marketing of food.

15. (a) Elucidate the importance of safe food handling practices.

Or

- (b) Write a note on sales returns book.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions out of Five.

16. Explain in detail about food materials management.
 17. Elaborate on hospital food production.
 18. Discuss in detail about food service equipment.
 19. Write in detail on styles of food service.
 20. Explain the principles and importance of dietary accounting in food service industry.
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D-1654

Sub. Code

36531

DISTANCE EDUCATION

M.Sc. DEGREE EXAMINATION, DECEMBER 2021.

Third Semester

Home Science – Nutrition and Dietetics

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. How do neurotransmitters influence behavior?
2. What factors influence our eating behaviors?
3. Which fruit is best for heart?
4. What are the routes of drug administration?
5. What causes malaria?
6. How do you maintain a healthy balanced diet for a TB person?
7. Why does dumping syndrome occur?
8. What are the signs that your kidneys are not working properly?

9. What are symptoms of being lactose intolerant?
10. What is the cause of metabolic disease?

PART B — (5 × 5 = 25 marks)

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

11. (a) What are the roles and responsibilities of a nutritionist?

Or

- (b) Can you make a distinction between full liquid diet and clear liquid diet?

12. (a) Can you elaborate on H1N1 and dengue fever?

Or

- (b) Can you predict the outcome if tropical sprue and steatorrhea occurs?

13. (a) How would you overcome the pancreatic disorders?

Or

- (b) How hepatitis is related to Hepatic coma?

14. (a) Mention briefly about Nephrolithiasis.

Or

- (b) How do you get tested for Hypothyroidism and Hyperthyroidism?

15. (a) Can you list the types of food allergy?

Or

- (b) What inference can you make on cardiovascular complications?

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. How would you categorize Crohn's disease, ulcerative colitis and Irritable bowel syndrome?
 17. What could you cite to defend the actions on colitis and colon cancer?
 18. Comment on cholecystitis, cholelithiasis and pancreatitis.
 19. Can you assess the importance of dietary management and prevention of food allergy?
 20. How would you categorize Alzheimer's disease and Parkinson's disease?
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D-1655

Sub. Code

36532

DISTANCE EDUCATION

M.Sc. DEGREE EXAMINATION, DECEMBER 2021.

Third Semester

Home Science – Nutrition and Dietetics

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 stress triggers?
2. What part of the brain controls stress?
3. What food should you avoid when feeling stressed?
4. What is good nutrition for weight loss?
5. What does weight reduction mean?
6. What happens to a person with diabetes mellitus?
7. At what age does cardiovascular disease start?
8. Can Exercise reverse atherosclerosis?
9. Which cancer is not curable?
10. What is immunotherapy used for?

PART B — (5 × 5 = 25 marks)

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

11. (a) What causes psychosomatic disorders?

Or

(b) How would you describe the biological effects of stress on respiratory system?

12. (a) Will you state Obesity causes and complications?

Or

(b) Can you interpret the dietary guidelines for the management of stress?

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

Or

(b) Can you predict the outcome of hypercholesterolemia and dyslipidemia?

14. (a) What inference can you make on dietary management in Angina Pectoris?

Or

(b) Can you make a distinction between Chemotherapy and radiation therapy?

15. (a) What can you infer from the hyperkinetic behaviour syndrome?

Or

(b) How would you clarify the main causes of epilepsy?

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Can you assess the importance of dietary guidelines for the management of stress?
17. How would you determine the causes, complications, dietary and life style management of Gestational diabetes?
18. What inference can you make on complications and dietary management of Hypertension?
19. How would you evaluate the nutritional problems of cancer therapy?
20. Can you explain the nutritional management in nervous system?

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36533

DISTANCE EDUCATION

**M.Sc. (Home Science – Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.**

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. What is a nutritional assessment tool?
2. What is biochemical assessment of nutritional status?
3. What is the best vitamin for malnutrition?
4. What are nutritional interventions?
5. What are the steps of the nutrition care process?
6. What is meant by food technology?
7. Which National organization is involved in community nutrition?
8. What is a child nutrition assistant?
9. What are the disadvantages of nutrition Programmes?
10. What causes food spoilage?

PART B — (5 × 5 = 25 marks)

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

11. (a) Write the prevalence and symptoms of Protein Energy Malnutrition (PEM).

Or

- (b) Can you list the dietary survey of Nutritional assessment?

12. (a) Will you interpret the nutritional disorder of Anemia?

Or

- (b) What agriculture planning would you adopt for Nutrition Intervention Program?

13. (a) What is the role of food technology in Nutrition intervention programmes?

Or

- (b) Can you able to explain ICMR, ICARM and SSWB concerned with food and nutrition?

14. (a) Can you able to describe the Training workers in Nutrition Education?

Or

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

15. (a) Can you elaborate the problems of Nutritional Educational Programmes?

Or

- (b) What are the types of food spoilage?

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. Will you state the ecology of malnutrition, nutrition and infection of Vitamin A and Iodine deficiency disorder?
17. Write the direct and indirect methods of Nutritional assessment.
18. What inference can you make on operation of Nutrition intervention programmes organized by Non-Governmental agencies?
19. Can you make a distinction of CARE, CWS, AFPRO and World Bank?
20. Describe about the losses of foods in the Post-harvest period causing food spoilage.

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36541

DISTANCE EDUCATION

**M.Sc. (Home Science Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.**

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. What are the clinical data of infants?
2. List out the characteristics of infant lactation.
3. Give the meaning of Cyanosis.
4. Define Seizures.
5. Define obesity of child.
6. What is hepatitis of infants?
7. List out the characteristics anaemia.
8. Define inflammatory bowel disease.
9. What are the characteristics of malnutrition?
10. Short note on AIDS.

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain the nutritional food requirements for infants.

Or

- (b) Comment on Anthropometric biochemical parameters.

12. (a) Describe the premature baby.

Or

- (b) Explain the detection of abnormal signs of infants.

13. (a) Write short notes on pass meconium of infants.

Or

- (b) Describe the scurvy rickets of childhood.

14. (a) Describe the nutritional management typhoid.

Or

- (b) Comment on nutritional management of plotting growth of infants.

15. (a) Write an essay about epilepsy disorder.

Or

- (b) Write a brief account on celiac disease.

PART C — (3 × 10 = 30 marks)

Answer any THREE out of Five questions.

16. Elucidate the assessment nutritional status in infancy.
 17. Give a brief account on immunization during pregnancy.
 18. Write short note on new-born sickness
 - (a) Cyanosis
 - (b) Jaundice.
 19. Explain nutritional management in protein energy malnutrition (PEM).
 20. Discuss in detail on attention deficit hyperactivity disorder.
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Sub. Code

36542

DISTANCE EDUCATION

**M.Sc. (Home Science- Nutrition and Dietetics) DEGREE
EXAMINATION, DECEMBER 2021.**

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. What are the importances of determining the cultural characteristics of bacteria?
2. How can you measure the amount of CO₂ produced during yeast culture?
3. Pharmaceuticals from molds.
4. Bacteriophages in food industry.
5. Canning.
6. Food additives.
7. How does canning affect nutrient Levels?
8. Sewage disposal.

9. Packaging laws and regulations.
10. Explain the HACCP.

PART B — (5 × 5 = 25 marks)

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

11. (a) Explain about the cultural and morphological characteristics of Bacteria.

Or

- (b) Define the chemical changes by microorganisms in food industry.

12. (a) Give short notes on morphology, physiology and multiplication, significance of moulds.

Or

- (b) Explain about the preservation, and control of microorganisms in cereals and cereal products.

13. (a) Write an account on microbiology of fruits and vegetables.

Or

- (b) Write an account on general principles of food preservation.

14. (a) Write an account on contamination, spoilage, preservation and control of microbes in poultry and fish industry.

Or

- (b) What is food packaging? Explain the food packaging methods.

15. (a) Explain in detail about the food sanitation and safety.

Or

- (b) Define the following
- (i) causes of spoilage in canned foods;
 - (ii) appearance of the unopened container;
 - (iii) grouping of canned foods on the basis of acidity.

PART C — (3 × 10 = 30 marks)

Answer any THREE questions.

16. What is yeast? Explain the culture, morphology and classification of yeast.
17. Write detail account on discovery, morphology, reproduction and its importance of viruses.
18. What is food preservation? Explain the methods/techniques used in food preservation.
19. Give an account on Bureau of Indian standards in food industry.
20. Explain in detail about the Food borne diseases.

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36543

DISTANCE EDUCATION

M.Sc. DEGREE EXAMINATION, DECEMBER 2021.

Fourth Semester

Home Science –Nutrition and Dietetics

FOOD BIOTECHNOLOGY AND BIOSTATISTICS

(CBCS 2018 – 2019 Academic year onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20 marks)

Answer ALL questions.

1. How is biotechnology used in food industry?
2. Why fermented food is good for health?
3. Write the definition of bioreactor.
4. Why enzymes are used in food industry?
5. What are natural toxicants?
6. What are food acids used for?
7. What are natural sweeteners?
8. What is the purpose of biostatistics?
9. What is cumulative frequency curve?
10. What is basic probability?

PART B — (5 × 5 = 25 marks)

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

11. (a) What are the parts of fermenter? Elaborate it.

Or

- (b) Illustrate the role of enzymes in fermentation.

12. (a) How do single cells make proteins? Elaborate.

Or

- (b) Discuss the role of amylase and invertase in food Industry.

13. (a) Elaborate about the culture and process of spirulina.

Or

- (b) Describe about High fructose corn syrup in food industries.

14. (a) Mention briefly about sampling bias and sampling techniques.

Or

- (b) Write the methods of collection of primary and secondary data.

15. (a) Illustrate the rules of probability and its applications.

Or

- (b) Write down the use of computers in data processing and presentation.

PART C — ($3 \times 10 = 30$ marks)

Answer any THREE questions.

16. Briefly explain about fermentation technology.
 17. Discuss about Yeast Biomass Production.
 18. Describe about the safety aspects of foods produced by biotechnology.
 19. Write the methods of graphical representation by histogram, polygon, Ogive curve and pie diagram.
 20. Discuss about random samples, systemic samples, cluster samples and quota samples.
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