

**FOURTH SEMESTER M.Sc. DEGREE [REGULAR/SUPPLEMENTARY]
EXAMINATION, APRIL 2022**

(CBCSS)

Home Science-Nutrition and Dietetics

HND 4E 03 (01)—FOOD SAFETY AND QUALITY CONTROL

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

1. *In cases where choices are provided, students can attend all questions in each section.*
2. *The minimum number of questions to be attended from the Section/Part shall remain the same.*
3. *The instruction if any, to attend a minimum number of questions from each sub section / sub part / sub division may be ignored.*
4. *There will be an overall ceiling for each Section / Part that is equivalent to the maximum weightage of the Section / Part.*

Part A

Answer any four questions, each in one paragraph.

Each question carries a weightage of 2.

1. Different phases of bacterial growth curve.
2. Factors affecting food spoilage.
3. Salmonellosis.
4. Essential labeling requirements.
5. Biological hazards to food safety.
6. Advantages of paper packaging.
7. Reproduction of true yeast.

(4 × 2 = 8 weightage)

Turn over

Part B

Answer any four questions, each within one page.

Each question carries a weightage of 3.

8. Describe the factors affecting the growth of microorganism.
9. Discuss different types of spoilages in milk and milk products.
10. Explain the role of emulsifying agents and flavouring agents as food additives.
11. Classify intentional adulterants with suitable examples.
12. Define the term food packaging. Explain the functions of the same.
13. What is HACCP ? Summarize seven principles of HACCP.
14. Explain the purpose of Bureau of Indian Standard Act.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries a weightage of 5.

15. Define Mycotoxins. Explain various types of food borne infections.
16. What is food additive ? Explain the uses of food preservatives and food colours as additives.
17. Explain various control orders formulated under Essential Commodities Act.
18. What is gas packing ? Write in detail about flexible packages and their advantages.

(2 × 5 = 10 weightage)

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EXAMINATION, APRIL 2022**

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Home Science—Nutrition and Dietetics

HND 4E 02 (01)—DIABETIC CARE AND MANAGEMENT

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

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Part A

Answer four questions, each in one paragraph.

Each question carries a weightage of 2.

1. Diabetic foot.
2. Ketoacidosis.
3. Random blood sugar.
4. Nocturia.
5. Glycaemic load.
6. Pre-diabetes.
7. Post prandial blood sugar.

(4 × 2 = 8 weightage)

Part B

Answer any four questions, each within one page.

Each question carries a weightage of 3.

8. Differentiate between type 1 and type 2 diabetes.
9. Write a short note on the complications of gestational diabetes.
10. Discuss on exercise and diabetes.
11. Explain the types of insulin.
12. Briefly discuss on diabetic nephropathy.
13. Principles for planning diet for diabetes.
14. Write a short note oral hypoglycemic drugs.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries a weightage of 5.

15. Discuss on the Complications in Diabetes mellitus.
16. Explain on the preventive aspects in diabetic mellitus.
17. Discuss on the endocrine and exocrine functions of pancreas.
18. Explain the various methods to diagnose diabetes.

(2 × 5 = 10 weightage)

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EXAMINATION, APRIL 2022**

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Home Science—Nutrition and Dietetics

HND 4C 13—METABOLIC AND BIOCHEMICAL CHANGES IN DISEASES

(2019 Admission onwards)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

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2. *The minimum number of questions to be attended from the Section / Part shall remain the same.*
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Part A

*Answer any **four** questions, each in one paragraph.*

Each question carries a weightage of 2.

1. Fatty liver.
2. Hypoglycemia.
3. Radio immune assay.
4. Maple syrup urine disease.
5. Necrosis.
6. Tuberculosis.
7. Osteoporosis.

(4 × 2 = 8 weightage)

Part B

Answer any four questions, each within one page.

Each question carries a weightage of 3.

8. Explain types of diabetes mellitus.
9. Discuss different phases of atherosclerosis.
10. Elucidate the buffer systems in the body.
11. Explain types and complications of obesity.
12. Write on gastric function tests.
13. Detail on biochemical changes in hypo and hyperthyroidism.
14. Write briefly on Galactosemia and lactose intolerance.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries a weightage of 5.

15. Explain in detail about any five inborn errors of lipid storage disorders.
16. Describe various methods of maintaining acid base balance in our body.
17. Discuss on hormones secreted by steroid glands and their action.
18. Discuss drug nutrient interactions.

(2 × 5 = 10 weightage)