

**FOURTH SEMESTER M.Sc. DEGREE (REGULAR) EXAMINATION
MARCH 2021**

(CBCSS)

Home Science–Nutrition and Dietetics

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

(2019 Admissions)

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. *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. Classify chemical toxins in food.
2. Structure of bacterial cell.
3. Non-perishable foods and perishable food items.
4. Different types of rotting in eggs.
5. Ergotism.
6. Define Food safety.
7. Modified atmospheric packaging.

(4 × 2 = 8 weightage)

Part B

Answer any four questions, each within one page.

Each question carries a weightage of 3.

8. Classify moulds according to their reproduction
9. Discuss intentional adulterants.

10. Describe the usage of different types of plastics for packaging.
11. Interpret the salient features and administration of PFA act.
12. Explain ISO.
13. Discuss on any *five* synthetic food colours, their use and harmful effects of non-permitted colours.
14. Describe nutritional labeling and coding of food products.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries a weightage of 5.

15. Define food borne disease outbreak. Elaborate on different types of food borne intoxications.
16. Elaborate the role of various national food standards and regulation in our country.
17. Elaborate on the advantages and disadvantages of food additives.
18. What are the changes occur in food due to spoilage ? Explain the spoilage of cereals and cereal products.

(2 × 5 = 10 weightage)

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Home Science - Nutrition and Dietetics

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

(2019 Admissions)

Time : Three Hours

Maximum : 30 Weightage

General Instructions

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Part A*Answer any four questions, each in one paragraph.**Each question carries 2 weightage.*

1. Glucose homeostasis.
2. Advantages of OGTT.
3. Hyperglycaemia.
4. Diabetes insipidus.
5. Cranial neuropathy.
6. Metabolic syndrome.
7. Glycaemic load.

(4 × 2 = 8 weightage)

Part B*Answer any four questions, each within one page.**Each question carries 3 weightage.*

8. Explain ketoacidosis.
9. Discuss on the classification of Diabetes Mellitus.
10. Explain the types of insulin.
11. Benefits of high fibre diet for diabetic patients.

Turn over

12. Role of exercise in the management of diabetes.
13. Write a short note hypoglycemic drugs.
14. Symptoms and treatment of diabetic foot.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries 5 weightage.

15. Explain pancreas under the following heads :
 - a) Anatomy.
 - b) Exocrine functions.
 - c) Endocrine functions.
16. Explain on the prevention, symptoms and complications of diabetic retinopathy.
17. Discuss on the different methods to diagnose diabetes.
18. Elaborate on obesity and its complications in Diabetes mellitus.

(2 × 5 = 10 weightage)

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Home Science—Nutrition and Dietetics

HND 4C 13 METABOLIC AND BIOCHEMICAL CHANGES IN DISEASES

(2019 Admissions)

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. Phenylketonuria.
2. Osteoporosis.
3. Dyslipidemia.
4. Insulin resistance.
5. Glycemic Index.
6. Apoptosis.
7. Lactose Intolerance.

(4 × 2 = 8 weightage)

Part B**Answer any four questions, each within one page.***Each question carries a weightage of 3.*

8. Explain blood glucose homeostasis.
9. Discuss aetiology and types of renal calculi.

10. Elucidate the complications of fatty liver.
11. Explain the principle behind electrophoresis.
12. Elaborate on hormones secreted by pituitary.
13. Detail on the regulation of acid base balance in our body.
14. Discuss on pathophysiology of fever.

(4 × 3 = 12 weightage)

Part C

Answer any two questions.

Each question carries a weightage of 5.

15. Explain in detail about glycogen storage diseases.
16. Elaborate on thyroid hormones and metabolic syndrome.
17. Explain enzymes under the following headings :
 - (a) Factors affecting enzyme activity.
 - (b) Enzymes involved in digestion of food.
18. Discuss diabetes mellitus under the following headings :
 - (a) Types.
 - (b) Short term and Long term complications.

(2 × 5 = 10 weightage)