

**BOWEN UNIVERSITY, IWO**  
**COLLEGE OF HEALTH SCIENCES**  
**NUTRITION AND DIETETICS PROGRAMME**  
**2023/2024 SECOND SEMESTER EXAMINATION**

**COURSE CODE: NTD 412**

**CREDIT UNIT: 3**

**TIME: 2HRS 30MIN**

**COURSE TITLE: ADVANCES IN NUTRITION AND  
DIETETICS**

**INSTRUCTION: ANSWER FIVE QUESTIONS WITH  
AT LEAST ONE FROM EACH SECTION**

**Section A**

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|--|---------|
| 1. a. Define the term “genetically modified food”.               | 4marks  |
| b. Discuss four health implications of genetically modified food | 10marks |
| 2. a. Discuss five importance of nutrition in sporting exercise  | 5marks  |
| b. List six functional food, their sources and health benefits   | 9marks  |

**Section B**

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|---|---------|
| 3. Discuss four ways by which nutrition impacts immunity                          | 14marks |
| 4. Explain two roles of ICT in the following:                                     |         |
| i. Simplifying dietary assessment process   | 4marks  |
| ii. Benefits of use of ICT in dietary assessment                                  | 4marks  |
| iii. Potential limitation of use of ICT in dietary assessment                     | 3marks  |
| iv. Proposed strategies to address challenges of use of ICT in dietary assessment | 3marks  |
| 5. Explain two impacts of climate change on the following                         |         |
| i. Global food production and human nutrition                                     | 5marks  |
| ii. Food systems and greenhouse emissions   | 5marks  |
| iii. Human health   | 4marks  |

**Section C**

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|--|--------|
| 6. a. Write briefly on personalized nutrition  | 4marks |
| b. The “fetal origins” hypothesis postulates that conditions, most likely nutritional, “program” the fetus for the development of chronic diseases in adulthood. Write briefly on the following chronic diseases attributed to developmental origin of disease |        |
| i) Hypertension  | 5marks |
| ii) Chronic kidney disease (CKD)   | 5marks |
| 7. a) List four common misconceptions about right to food.   | 4marks |
| b) i) People who live in different continents of different geographical regions and climates exhibit varieties of body composition. Write on the factors responsible for body composition?   | 5marks |
| ii) Briefly explain 5 different methods for assessing of body composition?   | 5marks |





