

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

**COURSE CODE: NTD 415
CREDIT UNIT: 3
TIME: 2HOURS 30MINUTES**

**COURSE TITLE: TOXICANTS IN FOOD
INSTRUCTION: ANSWER FIVE QUESTIONS
AT LEAST 2 FROM EACH SECTION**

Section A

1. a. Define the term street food and three reasons why it is on the increase 4marks
 - b. i) List and discuss the seven principles of HACCP in food safety 7marks
 - ii) List three reason why hygiene practice is important in food safety 1.5marks
- c. Mention three food borne disease that can results from the consumption of street foods 1.5marks

2. a. Highlight five reasons why Nutrition Labelling is important 5marks
 - b. List five each of consumers rights and responsibilities 5marks
 - c. State two importance of consumer education 4marks

3. a. Define food safety 2marks
 - b. Explain three food hazards that can result in food contamination and give three examples each 9marks
- c. Mention three health implications of food safety 3marks

Section B

4. a) Exposure to toxicants normally occurs through inhalation, skin or eye contact, and ingestion. Differentiate between the acute and chronic effect of toxicants. 6marks
 - b) Food intoxications are caused by eating foods containing natural toxins or, more likely, microbes that produce toxins. Write briefly on the following:
 - i) *Clostridium botulinum* 4marks
 - ii) Actions to help prevent foodborne illnesses 4marks

5. Many factors affect the reaction of an organism to a toxic chemical. Write briefly on the factors influencing toxicity. 14marks

6. a) Mention the ways in which humans are protected from the harmful effects of natural toxicants. 2marks
 - b) There are a large number of natural toxic chemicals in our daily diet. Write briefly on the following toxicants:
 - i) Mycotoxins 4marks
 - ii) Polycyclic aromatic hydrocarbons 4marks
 - iii) Cyanides 4marks