

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

FOURTH YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR  
OF SCIENCE IN FOOD SCIENCE TECHNOLOGY

FOST 411: FOOD TOXICOLOGY

STREAMS: B.Sc FOST Y4S1

TIME: 2 HOURS

DAY/DATE: THURSDAY 7/12/2017

8.30 A.M - 10.30 A.M.

---

**INSTRUCTIONS:**

- Answer ALL Questions in Section A and any other TWO Questions in Section B

**SECTION A (COMPULSORY) - [30 MARKS]**

**QUESTION ONE**

Explain the following terms and phrases as used in reference to food toxicology; [6 Marks]

- (a) Pathogenicity
- (b) Toxicology
- (c) Toxicant
- (d) Toxin

**QUESTION TWO**

Explain the various categories of toxicants that affect the human FOOD VALUE CHAIN. [6 Marks]

**QUESTION THREE**

Describe any three natural toxins found in FOOD CROPS. [6 Marks]

**QUESTION FOUR**

Using three examples for each, describe toxicity from excess intake of vitamins and minerals. [6 Marks]

**QUESTION FIVE**

Describe manifestation of a food allergy with examples of most foods exhibiting allergic tendencies. [6 Marks]

**SECTION B (ANSWER TWO QUESTIONS) - [40 MARKS]**

**QUESTION SIX**

Food additives are part and parcel of processed food with 1000 of them currently used worldwide.

- (a) Define a food additive. [2 Marks]
- (b) Describe any five categories of food additives. [10 Marks]
- (c) Discuss use of nitrite in cured meat and its safety concerns. [8 Marks]

**QUESTION SEVEN**

Discuss

- (a) Sources of microbial toxins and associated illness. [10 Marks]
- (b) Food contamination and poisoning by chemical toxins. [10 Marks]

**QUESTION EIGHT**

Illnesses arising from consumption of contaminated food are of major public health concern today.

- (a) Describe the types of food borne illnesses [8 Marks]
- (b) Discuss the exposure routes of various toxins and preventive practices in food establishments. [6 Marks]
- (c) Describe the significance of hand washing in prevention of foodborne illnesses. [4 Marks]

.....