FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA
SCHOOL OF LIFE SCIENCES
DEPARTMENT OF MICROBIOLOGY
FIRST SEMESTER EXAMINATION 2016/2017 SESSION

COURSE CODE: MCB 412
COURSE TITLE: FOOD MICROBIOLOGY (3 UNITS)
CLASS: 400 LEVEL
TIME: 2 HOURS

Instruction: Answer any 4 questions

1. Study the food specific attack rate table below, fill the blanks and answer the questions that follow.

Food	No of people who ate and were ill	No of people who ate and were not ill	Total no of people who ate	% of people who ate and were ill	No of people who did not eat and were ill	No of people who did not eat and were not ill	Total no of people who did not eat	% of people who did not eat and were ill
Kwose	60		85		58		71	
Moi-Moi		17	70			11	74	
Massa	64			80	48			72
Custard	51	10			17	68		

The symptom of food borne diseases occurred two hours after consumption of the food. It included dizziness, vomiting and diarrhoea
(a) What type of food borne disease is this?
(b) What is the incriminating food?
(c) What is the likely organism?
(d) List the serological type of the causative agent based on their morbidity
(e) How can future occurrence be prevented?

2. (a) What properties make bacteria important in food?
(b) Certain factors favour production of botulism toxins. Enumerate them
(c) What is histamine poisoning?

3. (a) Discuss microbial growth in succession
(b) Distinguish between food poisoning and food infection
(c) Describe the sequence of events that take place for food to get spoiled.

4. How would the following factors affect microbial activities in food
(a) Water activity

(b) Biological structure of food
(c) Antimicrobial constituents of food

5. (a) What is single cell protein?
   (b) How does food fermentation provide food security and health benefit?

6. Write short notes on the following:
   (a) Molecular method of detecting microorganisms in food
   (b) Microbial enumeration by membrane filter technique
   (c) Biological method of food preservation