

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES
2010/2011 FIRST SEMESTER EXAMINATION
MCB 409: FOOD AND DAIRY MICROBIOLOGY
PRACTICAL

Answer all questions.

Time: 1hr 30 mins.

1. Suppose you isolate *Bacillus cereus* from food sources. Describe how you will carry out Gram stain reaction on the organism. What will you suggest to be the result of the Gram stain?

2. Water samples used in processing pineapple juice was obtained from a factory in Benin. The water was inoculated into MacConkey broth in the following proportions: 10ml, Tube A; 1ml, Tube B; 0.1ml, Tube C. Record your observations. The tubes were incubated at 35°C for 5 days. Using the most probable number (MPN) table provided, estimate the number of coliform bacteria contained in the water sample.

3. You are provided with two types of milk, M₁ and M₂ contained in tubes at 10ml milk per tube. Add 0.5ml of methylene blue solution to each tube and incubate in a water bath at 37°C. Record your observations over a period of 30 minutes.

(25 Marks)