

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES

2010/2011 SECOND SEMESTER EXAMINATION

MCB 408: MICROBIOLOGY OF WATER, SEWAGE & AIR
PRACTICAL EXAMINATION

Answer all questions.

Time: 1hr 30 mins.

1. The agar plates provided were exposed to air at different time intervals (0 mins, 1 min and 10 mins) before incubation at 37°C for 24 hours.
 - (a) Observe all the plates carefully and record your observations.
 - (b) Give 3 reasons for the different growth observed.
 - (c) Suggest five appropriate conditions for good microbial growth

2. The bottles in the equipment labelled 'K' were filled with different types of sewage samples. Drops of potassium hydroxide (KOH) were added to the 'seal up' and incubation was carried out for 5 days at 28°C.
 - (a) What is the name of equipment?
 - (b) Record accurately the readings for each of the samples.
 - (c) What is the purpose of adding KOH?
 - (d) State any two precautions to be taken in carrying out the experiments.
 - (e) Explain the purpose of this experiment.

3. Suppose you are provided with water samples collected from the tap.
 - (a) Outline the steps you will take to isolate and determine the presence of *Escherichia coli*.
 - (b) What will you consider to be the significance of the presence of *E.coli* in tap water.