

BOWEN UNIVERSITY, IWO
DEPARTMENT OF BIOLOGICAL SCIENCES
2009/2010 FIRST SEMESTER EXAMINATION
PLB 404: CYTOGENETICS
THEORY

Answer question 3 and any other two.

Time: 2 hrs 15 mins.

1. Describe the procedure to be used in the study of meiosis using pollen mother cells of *Crotalaria glauca*.

(25 Marks)

2. Write concisely on the following

- i. Polytene chromosome
- ii. Mechanism of sex determination.

(25 Marks)

3. Describe the structure of chromosome as seen with the electron microscope.

(25 Marks)

4. What are polyploids? Review the criteria for differentiating between autopolyploids and allopolyploids.

(25 Marks)

5. Explain briefly the genetic basis speciation.

(25 Marks)