

**BOWEN UNIVERSITY, IWO**  
**DEPARTMENT OF BIOLOGICAL SCIENCES**

**2010/2011 FIRST SEMESTER EXAMINATION**  
**PLB 408: PLANT MORPHOGENESIS**  
**THEORY**

Answer one question from each section.

Time: 2hrs 15 mins.

**SECTION A**

1. (a) Explain the term meristem  
(b) Give a brief classification of meristems  
(c) Write comprehensively on one way of classifying meristems  
(d) State the difference between turgor and wall pressure  
(e) What are phytohormones?  
(f) List the five major classes of plant hormones

(25 Marks)

**SECTION B**

2. Enumerate the theories behind the events which occur in a very young apical meristem.
3. Discuss the role of microtubules and cellulose microfibrils in orienting the plane of cell division and the direction of cell expansion respectively.

(25 Marks)

(25 Marks)

**SECTION C**

4. Describe the structure, site of production and major functions of three phytohormones
5. Write concisely on the shoot apex of
  - (a) Angiosperms
  - (b) Gymnosperms

(25 Marks)

(25 Marks)