

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

2010/2011 FIRST SEMESTER EXAMINATION

ZLY 409: EMBRYOLOGY

PRACTICAL

Answer all questions.

Time: 1 hour

1. (a) Observe, identify, draw and label the following stages from the specimens provided:
    - (i) 2, 4 and 8-celled blastomeres
    - (ii) Morula
    - (iii) Blastula
    - (iv) Early, mid and late gastrula
  - (b) (i) State **one** major feature each that can be used to identify each of the stages and justify your answer by briefly explaining why the feature is important in its identification.  
(ii) Comment briefly on the significance of each stage  
(iii) State a major difference between each of the stages identified in (a) above.
- 
2. (a) What basic process gives rise to the stages in (1a) above and why is the process important?
  - (b) Briefly explain the various cleavage patterns studied by you.

*(25 Marks)*