

FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA  
DEPARTMENT OF PLANT BIOLOGY  
FIRST SEMESTER BTECH. EXAMINATION, 2017/2018 SESSION

COURSE CODE PLB 311  
COURSE TITLE: SEED PLANTS  
COURSE UNIT: 3  
TIME ALLOWED: 2 HOURS

INSTRUCTION: *ANSWER ANY FOUR (4) QUESTIONS IN ALL, TWO (2) QUESTIONS FROM EACH SECTION*

SECTION A

1.
  - a. Write notes on the types of vascular bundles
  - b. Describe nodal anatomy of the leaf traces and leaf gaps
  
2.
  - a. Write an essay on the basic requirements for the plant growth
  - b. In tabular form, compare and contrast the photosynthesis and respiration
  
3. Describe the following processes:
  - a. Nitrogen fixation
  - b. Nitrogen uptake
  - c. Nitrogen mineralization
  - d. Nitrification
  - e. Denitrification

SECTION B

4.
  - a. With the aid of clear diagrams and examples, explain the types of stomata structure.
  - b. Highlight five characteristics of meristematic tissues
  
2.
  - a. Using appropriate diagrams, explain any two types of glandular tissue.
  - b. Write notes on the following:
    - i. Epidermal appendages
    - ii. Parenchyma cells
    - iii. Sclerenchymatous cells
    - iv. Periderm
  
3.
  - a. Stating the criteria for classification, explain the types of meristem
  - b. List any 5 anatomical characters of taxonomic significance