

**THE OPEN UNIVERSITY OF TANZANIA**

**FACULTY OF SCIENCE, TECHNOLOGY AND ENVIRONMENTAL STUDIES**

**OBT: 251 Plant Structure And Development**

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**INSTRUCTION**

- Attempt **ALL** questions in all **three** parts
  - Write your full **name, postal address** and **registration number**
  - Assignment one should reach the Faculty by **12<sup>th</sup> December 2008** and the second by **27<sup>th</sup> March 2009**
  - **Caution:** Assignment questions should seek detailed contents from various sources of information and strictly not copying highlights from course outlines
  - Marks will be awarded for **concise** answers and inclusion of examples and diagrams
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**ASSIGNMENT I - 2008/09**

- Q1.** Using examples and diagrams where applicable, **briefly distinguish** the following terminologies
- a) A parasite and an Epiphyte
  - b) Glabrous leaf and Glaucous leaf
  - c) Creepers and Climbers
  - d) Stilt and Beaded roots
- Q2.** Using examples and diagrams where applicable, **write short notes of not more than one page for each of** the following terminologies
- a) Aestivation
  - b) Pteridophytes
- Q3.**
- a) What are apical meristems?
  - b) Using well labelled diagram(s) describe the stages occurring during initiation of leaves from apical meristem.
- Q4.**
- a) What is the difference between plastochron and phyllotaxy?
  - b) Using diagrams, describe the various phyllotaxies in plants.
  - c) List the significance/role that phyllotaxy play in plants
- Q5.**
- (a) What is endodermis?
  - (b) Using examples, outline the function of the epidermis
- Q6.**
- a) What is the basic difference between the anatomy of a plant root and stem?
  - b) With the aid of diagram(s) write short notes on cortex/ground tissue system in roots

**ASSIGNMENT II - 2008/09**

- Q1.** a) What is photo-morphogenesis?  
b) Describe the mode of action of phytochrome  
c) Write short notes on seed dormancy
- Q2.** Using examples and diagrams where applicable, **write short notes of not more than two pages** on Nastic movements in plants
- Q3.** a) Define pollination  
b) With the aid of well labeled diagram(s), describe the process of double fertilization in angiosperms
- Q4.** a) What is plant morphogenesis?  
b) Discuss how regeneration in higher plants differs from that of lower plants, that is, thallophytes and bryophytes
- Q5.** Using diagrams, briefly describe (a) the main features of leaf epidermis and (b) ecological significance of the leaf epidermis in plants
- Q6.** With examples and diagrams, describe the types/classification of vascular tissue based on position of primary phloem in relation to primary xylem

**THE END**