

Uganda Martyrs University

Faculty of Agriculture

B. Agriculture 1, Semester I Final Assessment: 2014/2015

Course Unit: **Plant Anatomy and Physiology**

Time: 9:30 am – 12:30 pm

Date: Wednesday, 10th December, 2014

Instructions:

Answer any four questions

Do not write anything on a question paper

Time: Three hours

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| 1 | Using a suitable illustration, describe the preparatory and pay-off phases of glycolysis | 25 marks |
| 2 | Discuss leaf/leaflet arrangement on the petiole | 25 marks |
| 3 | Describe five metabolic compounds produced by a plant | 25 marks |
| 4 | Write short notes on the following terms as used in plant physiology | |
| a) | Nyctinastic movements | 5 marks |
| b) | Epinastic movements | 5 marks |
| c) | Plant hormones | 5 marks |
| d) | Parenchyma cells | 5 marks |
| e) | Sclerenchyma cells | 5 marks |
| 5 | Describe the external root structure of a plant | 25 marks |
| 6 | Explain the different types of subterranean stems | 25 marks |
| 7 | Discuss the different modifications of leaves to their environment | 25 marks |
| 8 a) | Describe the light dependent reactions of photosynthesis | 15 marks |
| b) | Explain the process of chemiosmosis in plants | 10 marks |

END