

Uganda Martyrs University

Faculty of Agriculture

B. Agriculture I Semester I Final Exams: 2018/2019

Course Unit: CRE 1102: Plant Anatomy and Physiology

Time: 09:30 am – 12:30 pm

Date: Thursday, 6th December, 2018

Instructions:

- i. Answer any **FOUR** Questions
 - ii. Each question is 25 marks
 - iii. *Do not write anything on a question paper*
 - iv. Time: Three hours
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| 1 | a) Explain the different mechanisms favouring allogamy | 15 marks |
| | b) Discuss the different adaptations of plants to drought stress | 10 marks |
| 2 | Explain the properties of water which make it a very important component in different plant physiological processes | 25 marks |
| 3 | a) Using a suitable illustration, describe the different components of the internal leaf structure | 15 marks |
| | b) Elaborate on the three growth phases of meristematic cells | 10 marks |
| 4 | Discuss the different types of allochory | 25 marks |
| 5 | Contrast the following terminologies | |
| | a) Guttation vs Transpiration | 05 marks |
| | b) Light dependent reactions vs Light independent reactions | 05 marks |
| | c) Preparatory phase vs Pay off phase of glycolysis | 05 marks |
| | d) Chilling injury vs Frost injury | 05 marks |
| | e) Physiological dormancy vs Morphological dormancy | 05 marks |
| 6 | Describe the different methods of artificial vegetative propagation | 25 marks |
| 7 | a) With appropriate illustrations, explain the relations between osmosis and tonicity | 15 marks |
| | b) What are the different types of plant cells? | 10 marks |
| 8 | Discuss the different rules of binomial nomenclature | 25 marks |