

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE
OF BACHELOR OF**

BOTA 474: PLANT PHYSIOLOGY II

STREAM:

TIME: 2 HOURS

DAY/DATE: THURSDAY 01/04/2021

8.30 A.M. – 10.30 A.M.

INSTRUCTIONS:

Answer all the questions in Section A and **TWO** questions in Section B
Do not write anything on the question paper

SECTION A (30 Marks)

1. Differentiate between:
 - (a) Photosynthesis and respiration (5 marks)
 - (b) C4 and CAM plants (5 marks)
2. Discuss the physiological features of shade plants with respect to irradiance (5 marks)
3. Draw a chloroplast and label the different parts (5 marks)
4. Discuss the factors affecting enzyme activity (5 marks)
5. Describe how roots influence local availability of soil nutrients (5 marks)

SECTION B (40 MARKS)

6. Discuss photosynthesis in the following
 - (a) Light reaction phase (10 marks)
 - (b) Carbon fixation phase (10 marks)

7. Discuss the theories of stomatal movements (20 marks)
 8. Discuss the processes of Nitrogen metabolism in plants (20 marks)
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