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**University Examinations 2023/2024**

FIRST YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF  
BIOCHEMISTRY, BACHELOR OF BIOTECHNOLOGY, BACHELOR OF BIOLOGICAL  
SCIENCES AND BACHELOR OF EDUCATION

**SBA 3100: SURVEY OF PLANT KINGDOM**

**DATE: DECEMBER 2023**

**TIME: 2 HOURS**

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**INSTRUCTIONS:** Answer question *one* and any other *two* questions

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**QUESTION ONE (30 MARKS)**

- a) Distinguish between the following in relation to plants
- i. Homospogy vs heterospogy (4 marks)
  - ii. Homothallic vs heterothallic (4 marks)
  - iii. Protopoma vs prothallus (4 marks)
- b) Illustrate the morphological structure found in a mass plant and showing the following
- i. Callidium (2 marks)
  - ii. Seta (2 marks)
  - iii. Sporangium (2 marks)
  - iv. Pygidium (2 marks)
  - v. Rhizoids (2 marks)
- c) Outline the four division of plants described as seedless trichophytes (4 marks)
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- d) Discuss four economic importance of the lower plants (4 marks)

**QUESTION TWO (20 MARKS)**

- a) Discuss the challenges that lower plants had to overcome to establish on land (20 marks)

**QUESTION THREE (20 MARKS)**

- a) Discuss alternation of generations in plants across the three main terrestrial power groups (Mosses-Ferns- Higher Plants) (20 marks)

**QUESTION FOUR (20 MARKS)**

- a) Discuss the reasons for the success of anthophyte division over all the other plant divisions despite being the last one to appear on land (20 marks)



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