SOUTH EASTERN KENYA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY

SBL 206: PLANT STRUCTURE AND FUNCTION

DATE: 19TH APRIL, 2017 TIME: 1.30-3.30 P.M

INSTRUCTIONS TO CANDIDATES

(a) Answer ALL the Questions in Section A

(b) Answer ANY TWO Questions in Section B

(c) Illustrate your answers with well labeled diagrams where appropriate

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SECTION A (30 Marks)

1. Describe briefly the thallus of a lower plant.**(3 Marks)**
2. Explain how Bryophytes absorb water and mineral salts. **(3 Marks)**
3. Distinguish a sporophyte from a gametophyte generation. **(3 Marks)**
4. Explain why the name tracheophyte has been used in plants.**(3 Marks)**
5. Describe the salient structural components of the xylem and phloem of Pteridophytes. **(3 Marks)**
6. Explain why ferns are referred to as cryptograms. **(3 Marks)**
7. What are the functions of a sporophyll. **(3 Marks)**
8. State three important structural developments that made seed plants to be adapted to land.**(3 Marks)**
9. Explain the phrase, "naked spermatophyte seed".**(3 Marks)**
10. State the functions of the following:

(a). Velamen **(1 Mark)**

(b). Pneumatophores **(1 Mark)**

(c). Haustoria**(1 Mark)**

SECTION B(40 Marks)

11. Discuss the structural distinguishing features of Bryophytes.**(20 Marks)**
12. Describe structural and functional components of the division Pteridophytes. **(20 Marks)**
13. Discuss the following:
    (a). leaf venation**(10 Marks)**
    (b). leaf phyllotaxy**(10 Marks)**
14. (a). Describe the regions of a typical angiosperm plant roots from the apex upwards**. (10 Marks)**

    (b).Describe the various secondary functions performed by plant roots. **(10 Marks)**