



EMBU UNIVERSITY COLLEGE

(A Constituent College of the University of Nairobi)

2015/2016 ACADEMIC YEAR

SECOND SEMESTER EXAMINATION

FOURTH YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE
(HORTICULTURE)

ACH 407: TURFGRASS MANAGEMENT

DATE: APRIL 13, 2016

TIME: 02:00-04:00

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions

QUESTION ONE

- a) Distinguish between the following terms;
- i) Turfgrass and Turf. (4 Marks)
 - ii) Monostand and Polystand (4 Marks)
- b) State at least four uses of turfgrasses. (4 Marks)
- c) Briefly describe any three vegetative parts used in the identification of turfgrasses. (6 Marks)
- d) You are provided with two sand mixes with the same mid particle diameter $D_{50} = 0.3$ mm. Sand mix A; $D_{10} = 0.19$ mm, $D_{90} = 0.38$ mm. Sand mix B; $D_{10} = 0.15$ mm, $D_{90} = 2.9$ mm,
- i) Define gradation index. (2 Marks)
 - ii) Calculate the GI for each sand mix. (2 Marks)

- e) Name any four Cool- season turfgrasses and any four warm-season turfgrasses used as sportsturf. (8 Marks)

QUESTION TWO

- a) Discuss the three main sub-families used as turfgrasses, explaining their characteristics and ecological adaptation. (12 Marks)
- b) Describe the relationship between Nitrogen supply and the shoot/root ratio in turfgrasses. (8 Marks)

QUESTION THREE

- a) Discuss briefly the following as applied in turfgrass management. (10 Marks)
- i) Mowing height and frequency
 - ii) Mowing pattern
- b) Discuss the methods used to enhance aeration in a compacted turf. (10 Marks)

QUESTION FOUR

- a) Discuss the main approaches applied to provide adequate drainage in sportsturf systems. (15 Marks)
- b) List three IPM practices that can be applied to achieve and maintain healthy turfgrass. (5 Marks)

QUESTION FIVE

Discuss the visual and Functional characteristics of turfgrasses that make them an essential component for turf consideration. (20 Marks)

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