



UNIVERSITY EXAMINATIONS

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN
HORTICULTURE**

HORT 421: HORTICULTURAL SEED PRODUCTION

STREAMS: BSC HORT Y4S2

TIME: 2 HOURS

**DAY/DATE: TUESDAY 23/03/2021
A.M**

8.30 A.M – 10.30

INSTRUCTIONS:

This paper contains section A and B

Answer all questions in section A and any two from section B

Marks for each question are indicated in parenthesis

Total marks = 70

SECTION A: ANSWER ALL QUESTIONS (30 MARKS)

Question one

- (a) Differentiate between a monocot and a dicot seed. [4 marks]
- (b) Explain three internal factors that affect germination. [6 marks]

Question two

- (a) What are the harmful effects of seed-borne diseases? [4 marks]
- (b) Describe three physiological changes that occur during seed changes. [6 marks]

Question three

- (a) With examples, describe the methods promoting self-pollination of plants. [3 marks]
- (b) What is seed dormancy? Describe two types of seed dormancy. [4 marks]
- (c) What is seed drying and how is it done. [3 marks]

SECTION B: 40 MARKS: ANSWER ANY TWO QUESTIONS

Question four

- (a) Explain the following terms in relation to seed production.
- (i) Breeder seed [4 marks]
- (ii) Foundation seed [4 marks]
- (iii) Registered seed [4 marks]
- (iv) Certified seed [4 marks]
- (b) State the characteristics of a good seed protectant. [4 marks]

Question five

Seed merchants and seed growers in Kenya provide avenues for seed acquisition. However before the seed is released for planting or purchase it has to undergo certification. In this regard explain the seed certification process in Kenya.

[20 marks]

Question six

Explain the following terms used in seed production and their importance:

- (i) Seed pelleting [4 marks]
 - (ii) Seed coloring [4 marks]
 - (iii) Seed infusion [4 marks]
 - (iv) Seed cryopreservation [4 marks]
 - (v) Seed processing [4 marks]
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