

CHUKA



UNIVERSITY

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

HORT 442: TEMPERATE ZONE FRUITS

STREAMS: BSC HORT Y4S1

TIME: 2 HOURS

DAY/DATE: WEDNESDAY 4/12/2019

2.30 P.M – 4.30 P.M

INSTRUCTIONS

The 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(30 MARKS) ANSWER ALL QUESTIONS

QUESTION ONE

- (a) Classify temperate fruits based on plant stature. [3 marks]
- (b) With examples differentiate between drupe and pome fruits. [4 marks]
- (c) Temperature fruits in Kenya are characterized by poor development and yield due to poor dormancy breakage. Explain three methods that can be used to overcome dormancy.

[4 marks]

QUESTION TWO

- (a) Explain the role of growth regulators in apple [3 marks]
- (b) Describe how training and pruning of peach is done. [3 marks]
- (c) Give the taxonomical classification of strawberry. [3 marks]

QUESTION THREE

- (a) What are clonal rootstocks and how do they differ from seedling rootstocks?[3 marks]
- (b) Describe the species of plum and give examples of cultivars in each species. [4 marks]

- (c) Explain briefly soil and weed management in pear orchards. [3 marks]

SECTION B (40 MARKS) ANSWER TWO QUESTIONS

QUESTION FOUR

Discuss climate change impact on temperature fruit production with special reference to apple and suggest adoption and mitigation strategies. [20 marks]

QUESTION FIVE

- (a) Identify indices used for judging optimum maturity. [12 marks]
(b) Describe harvesting grading and post harvest management of pear. [8 marks]

QUESTION SIX

- (a) Discuss briefly the causes of low productivity in temperature fruits. [10 marks]
(b) Explain what you understand by replant problem, its causes and management. [10 marks]
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