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EMBU UNIVERSITY COLLEGE

(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)

SECOND SEMESTER EXAMINATIONS 2013/2014

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF SCIENCE IN
HORTICULTURE**

A CH 202: GREENHOUSE PRODUCTION AND PROTECTED ENVIRONMENT

DATE: APRIL 10, 2014

TIME: 8.30 – 10.30AM

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions.

QUESTION ONE

- a) Explain how Fan-and-pad system operates in reducing the greenhouse temperatures. (6 Marks)
- b) What are the major considerations when purchasing an emitter? (6 Marks)
- c) Differentiate pure hydroponic culture from hydroponic culture (4 Marks)
- d) Illustrate how to prepare hydroponic nutrient solutions. (6 Marks)
- e) Describe the cause of petal blackening on rose flower. (2 Marks)
- f) Distinguish between peat moss and peat humus (6 Marks)

QUESTION TWO

- a) Discuss the major factors considered when selecting the site for greenhouse construction
(10 Marks)
- b) Discuss the basic considerations in the selection of greenhouse covering materials
(10 Marks)

QUESTION THREE

- a) Discuss five ways of managing hydroponic nutrient solution
(10 Marks)
- b) Explain five factors that are considered when determining the chemical characteristics of a root media used in greenhouse.
(10 Marks)

QUESTION FOUR

- a) Discuss various cultural pest management in the greenhouse.
(14 Marks)
- b) Describe the damages caused by excess Sulphur dioxide (SO₂) on sweet pepper plants grown in greenhouse condition.
(6 Marks)

QUESTION FIVE

- a) Discuss ways in which carbon dioxide can be enriched in a tomato greenhouse
(10 Marks)
- b) Discuss five ways of decreasing relative humidity in the greenhouse
(10 Marks)

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