

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**YEAR I SEMESTER I EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FSHM/FSN/FST/HND**

**SBT 2110: BOTANY**

**DATE:DECEMBER 2015 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS.**

QUESTION ONE (30 MARKS)

a. i. State the 5 kingdoms classification according to Whittaker. (1969) and outline one characteristic unique to each. (5 marks)

 ii. Describe the four whorls that make up a complete flower. (4 marks)

b. i. Describe the two laws of Mendel on heritability. (2 marks)

 ii. State three ways through which crops were dispersed from the centers where they were first cultivated. (3 marks)

c. i. Outline the three theories that explain how water ascends in a plant.

 (3 marks)

 ii. State the role of water in plants. (3 marks)

d. i. Describe any four factors that affect the rate of photosynthesis. (4 marks)

 ii. Explain the role of light in photosynthesis (3 marks)

 iii. State four roles of ethylene in plants. (2 marks)

QUESTION TWO (20 MARKS)

Write an essay on classification of fruits.

QUESTION THREE (20 MARKS)

Describe meiosis and its role in plants.

QUESTION FOUR (20 MARKS)

Discuss the fate of pyruvate during respiration.