**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATION 2017/2018**

**YEAR 1 SEMESTER 1 EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE**

**SBT 2110: BOTANY**

**DATE: JANUARY 2018 TIME : 2 HOURS**

**Question One**

1. Differentiate between the following terms as used in flowers. [1 mark each]
2. Perrigyny and hypogyny
3. Synpetslly and apopetally
4. Bicarpelate and polycarpelate
5. Zygomorphic and actinomorphic
6. Define the herbarium and state any two of its uses. [3 marks]
7. Explain how crops may have spread from the centres when they were first cultivated. [3 marks]
8. Outline the use of Gibberellic acids in food production. [3 marks]
9. Outline six characteristics of meristematic cells. [3 marks]
10. State the similarities of the mitochondrion and the chloroplast. [4 marks]
11. Explain how metabolic process of cellular respiration and photosynthesis recycle carbon dioxide. [2 marks]
12. Describe the physical characteristics of a plant that may change when it’s faced with drought. [4 marks]
13. State Mendel’s law of heritability and related them to meiotic activities. [4 marks]

**Question Two – 20 marks**

Discuss the characteristics and classification of fruits.

**Question Three – 20 marks**

Discuss pyruvate oxidation in the presence of oxygen and state its significance.

**Question Four – 20 marks**

Discuss the factors that affect the rate of photosynthesis in plants.