

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

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2016/2017**

**YEAR 1 SEMESTER II EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOCHEMISTRY AND MOLECULAR BIOLOGY/INDUSTRIAL BIOTECHNOLOGY AND APPLIED BIOENGINEERING**

**HBB 2105: PLANT BIOCHEMISTRY I**

**DATE: June 2017 TIME: 2 HOURS**

**INSTRUCTIONS: Answer Question One and any other two Questions**

1. Explain the following terms and concepts;
2. Apoplast (3marks)
3. Synplast (3marks)
4. Plasmodesmata (3marks)
5. Rhizosphere (3marks)
6. Mycorrhizae (3marks)
7. Tracheids (3marks)
8. Vessel elements (3marks)
9. Photosystem I (3marks)
10. RUBISCO (3marks)
11. KRANZ ANATOMY (3marks)
12. Using diagrams, describe the transport mechanisms in plants (20marks)
13. Using diagrams, explain the two-system photosynthetic light reactions. (20marks)
14. a. Using diagrams, describe the structure and functions of chloroplasts. (10marks)

b. Use diagrams to explain the Hatch-Slack cycle. (10marks)