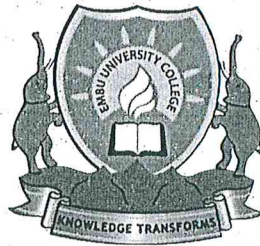


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**EMBU UNIVERSITY COLLEGE  
(A CONSTITUENT COLLEGE OF THE UNIVERSITY OF NAIROBI)**

**SECOND SEMESTER EXAMINATION 2013/2014**

**SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF  
SCIENCE IN GENETICS**

**SBT 547: ECOLOGICAL AND BEHAVIOURAL GENETICS**

**DATE: APRIL 2, 2014**

**TIME: 11.00AM - 2.00PM**

**INSTRUCTIONS:**

**Answer ANY four Questions. Each Question is 25 Marks**

1. Discuss the process of gel electrophoresis.
2. Explain the two types of speciation and discuss pre- and postzygotic reproductive isolating mechanisms.
3. Discuss the following in reference to learning behavior in bees:
  - i) Navigation
  - ii) Learning during dance communication
  - iii) Cue learning and memory in freely behaving bees
  - iv) Olfactory conditioning
4. Discuss eight categories of genetically controlled non-sexual behavior in *Drosophila*.
5. Discuss seven sex-linked traits in humans and their inheritance pattern.

**---END---**