

EASTERN UNIVERSITY, SRI LANKA  
SECOND YEAR EXAMINATION IN SCIENCE 2009/2010 (April 2012)  
SECOND SEMESTER (Proper & Repeat)  
ZL 203 EUKARYOTIC GENETICS



Time: 02 hours.

Answer all questions.

(Illustrate your answers with clear labeled diagrams where necessary)

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1. Describe briefly the setting up of four morphogenes in the fertilized egg of *Drosophila* during its larval development.
2. Comment on **any two** of the following:
  - a). Sequencing of DNA molecules by Sanger's method;
  - b). P-elements;
  - c). Mitotic recombination.
3. Write an account on wing development in holometabolous insect from the wing imaginal disc.
4. Write short notes on **any two** of the following:
  - a). Sigma virus in *Drosophila*;
  - b). Role of gap genes on the antero-posterior axis development;
  - c). Molecular cloning.

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