

EASTERN UNIVERSITY, SRI LANKA
SPECIAL DEGREE EXAMINATION IN ZOOLOGY 2008/09
Part I – (May-June) 2011

ZL 410 DEVELOPMENTAL GENETICS

Time : 03 hours

Answer all questions

(Illustrate your answer with clear labeled diagrams where necessary)



1. Write a brief account of positional information and the polar coordinate model to explain an amphibian limb regeneration.
2. Write notes on any two of the following:
 - a) Abzymes;
 - b) Burkitt's Lymphoma;
 - c) Gap genes.
3. Describe in detail the development of sense organs in *Drosophila* imaginal wing disc of late third instar larva.
4. Comment on any two of the following:
 - a) *multiple wing hairs (mwh)* is a cell marker in genetic mosaics;
 - b) Translational regulation of ferritin –mRNA;
 - c) Transcriptional control by a promoter.
5. "Patterning of eye disc is a model system for small patterning".
Discuss this statement with special reference to the development of *Drosophila* compound eye.
6. a) List the basic processes that are involved in the differentiation of erythroid cells.
b) Describe briefly the haematopoiesis in human beings.

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