



Uva Wellassa University of Sri Lanka
Faculty of Animal Science & Export Agriculture



Aquatic Resources and Technology Degree Programme
End Semester Examination- August/ September 2014
Year III Semester II

**AQT 351-2 Applied Aquatic Biotechnology
Essay (Section III)**

Instructions

Answer all questions in Section III in the booklet provided

No. of questions : Two (02)
No. of pages : One (01)
Time : One hour (01 hr.)
Total marks allocated : 60%

1.

a) Propose a method to introduce **Growth Hormone (GH)** gene into Grass carp (*Ctenopharyngodon idella*) to double the body mass. Outline the steps in gene transformation.

(50 marks)

b) Briefly explain "Possible risks of transgenic fish" in aquaculture

(50 marks)

2.

a) **Lac Z gene** is an essential gene for bacterial survival, but it is also useful as a marker gene in recombinant DNA technology. Briefly explain how you can use Lac Z gene as a marker gene.

(50 marks)

b) Briefly describe the methodology involved in "Construction of cDNA library"

(50 marks)

[End of Section III]