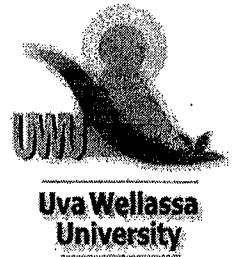




Uva Wellassa University of Sri Lanka
End Semester Examination- September/October 2013
Faculty of Animal Science & Export Agriculture
Aquatic Resources and Technology Degree Programme
Year III Semester II



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%

Index No:

1.

a) Briefly describe the principle involved with **Direct Microinjection** techniques in transgenic fish production, citing examples and giving advantages and disadvantages of the given technique.

(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) Taura syndrome is one of the serious diseases that affect a wide range of *Penaeus vannamei*. Few ponds of a farm are showing clinical signs (presence of dead/ dying shrimps in cast nests and brownish/black lesions in the cuticle of the cephalothorax and tail region) which are similar to Taura syndrome. Outline the steps to diagnose Taura syndrome of this farm using a PCR based technique.

(50 marks)

[End of Section III]