



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



Aquatic Resources and Technology degree programme
Year II Semester I
End Semester Examination – February / March 2011

AQT 214-2 Fish Genetics –Essay - (Section III)

Instructions

Answer all questions in Section III in the booklet provided

No. of questions : Four (02)

No. of pages : One (01)

Time : One hour (1hr.)

Total marks allocated : 60%

Index No:

1.
 - a. Reduced number of rays in dorsal fin is a defective recessive condition in platy fish. A population initially had reduced number of rays in dorsal fin (rr) at the frequency of 6% and the farmer selects completely against all the defective individuals for 5 generations. Calculate the new gene frequency of r allele at the end of the selection program.
 - b. If the farmer wants to eliminate above mentioned character from the breeding stock, how do you advise the breeder to eliminate this character from the breeding stock.

2.
 - a. Briefly explain what do you understand by 'selection favoring heterozygotes' and comment on the expected gene frequencies at the end of selection (Note calculation of gene frequencies is not required).
 - b. Write a brief note on 'selection between populations/ breeds' indicating the most important factor to be considered

[End of section III]