

Uva Wellassa University of Sri Lanka
Faculty of Animal Science & Export Agriculture
B.Sc in Aquatic Resources Technology
Year II Semester II



End Semester Examination – September / October 2012

AQT 233-2 Water Quality Management & Remediation

Essay Questions (Section II)

Instructions

Answer **all** questions in Section II in **given** Booklet.

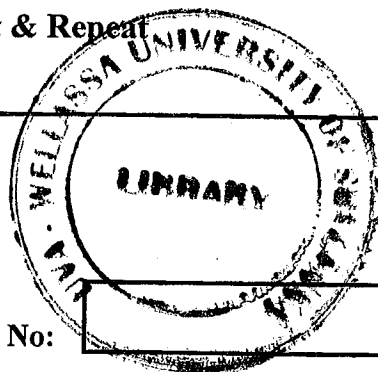
No. of questions : Two (02)

No. of pages : Two (02)

Time : One hour (1hr)

Total marks allocated : 60%

Index No:



01. A student has conducted experiments to determine the selected water quality parameters for two sites (Site A and B). He used the **Winkler method** to find out the primary production after keeping the BOD bottles **two (2)** hours in the 100 m depth. Results are given below.

		Site A	Site B
Reacted $\text{Na}_2\text{S}_2\text{O}_3$ Volume for the samples in BOD bottles after <u>two</u> hours	Light BOD Bottle / ml	2.50	8.00
	Dark BOD Bottle / ml	1.00	2.00
	BOD (mg/L)	1.15	10.2
	COD (mg/L)	0.5	5.9

i) Calculate the gross primary production of site A and B using above results.

(Use the stoichiometric ratio of the relevant reactions and equation/s for calculations: units should be in mgC/Lh)

ii) Which site is highly susceptible for the **eutrophication**? Comment on the reason/s to support your answer.

iii) Briefly explain the adverse impacts of **eutrophication** on a freshwater body.

(30 marks)

02. Write an essay on management of Ammonia toxicity in fish ponds.

(30 marks)

[End of Section II]