

宁波大学 2014 年攻读硕士学位研究生

入学 考 试 试 题(B 卷) (答案必须写在答题纸上)

考试科目: 农业知识综合二

科目代码: 340

适用专业: 渔业

一、营养生理 (75 分)

- 1、请解释“木桶效应”，该效应对生产实际有何指导意义 (10 分) ?
- 2、什么是 EFA? EFA 有何生理功能? 写出鱼虾所需 EFA 的种类? (15 分)
- 3、写出脂肪自动氧化的步骤，并分析脂肪氧化对水产动物的危害 (10 分) ?
- 4、论述蛋白质，脂肪和糖类三大类营养素的相互作用关系 (15 分) ?
- 5、分析影响维生素稳定性的主要因素有哪些 (15 分) ?
- 6、翻译 (10 分)

Lipid is one of the important nutrients for mollusks, especially at larval and juvenile stages, have also been demonstrated (Delaunay et al., 1991; Marty et al., 1992; Robinson, 1992; Mai et al., 1995). Lipid provides the source of energy, essential fatty acids (EFA) and other lipid classes like phospholipids and sterols and fat-soluble vitamins (Watanabe, 1982). Knowledge of the protein sparing effects of non-protein nutrients such as lipids or carbohydrates are necessary and should be used to reduce feed costs and limit ammonia production (Vergara et al., 1999). Meanwhile, excessive energy in diets can lead to decrease feed consumption (especially protein and other nutrients intake) and reduced growth (Ellis and Reich, 1991). Lipid in mollusk larvae have been used as an index for monitoring their physiological and nutritional status, and potential for successful metamorphosis (Gallager et al., 1986). However, information on the quantitative requirement of dietary lipid and its utilization in mollusk is mainly focus on the abalone. The optimal dietary lipid level of mollusk species, such as *Haliotis discus hannai* (皱纹盘鲍) (Uki et al., 1985; Mai et al., 1995), *Haliotis tuberculata* (L) (欧洲疣鲍) (Mai et al., 1995) had been demonstrated.

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二、动物繁殖学 (75 分)

1、名词解析 (4 题, 每题 5 分, 共 20 分)

- (1) 稚鱼
- (2) 卵胎生
- (3) 生殖力
- (4) 大眼幼体

2、简答题 (3 题, 每题 10 分, 共 30 分)

- (1) 什么是卵巢的发育过熟? 什么是催产适期?
- (2) 影响鱼类性腺发育的因素有哪些?
- (3) 试举例说明海产腹足类的生活史。

3、论述题 (25 分)

举例说明双壳贝类的人工育苗工艺流程及育苗关键技术。