

國立體育大學九十九學年度教練研究所博士班入學考試試題  
運動生化營養組

運動生理學(含生化營養學)

(本試題共 9 頁)

- ※ 注意： 1. 答案一律寫在答案卷上，否則不予計分。  
2. 請核對試卷、准考證號碼與座位號碼三者是否相符。  
3. 試卷『彌封處』不得污損、破壞。  
4. 行動電話或呼叫器等通訊器材不得隨身攜帶，並且關機。

【本試題總計 100 分】

須以中文(專有名詞可用英文)、橫書作答

**Title: Effect of Supplementation with *Ecklonia cava* (褐藻) Polyphenol on  
Endurance Performance of College Students. *International Journal of  
Sport Nutrition and Exercise Metabolism*, 2010, 20, 72-79.**

1. (a) What are the interest, originality, and importance to you in this paper?  
(b) What's the practical application do you think after you read this paper? (25 分)
2. Schematic representation of experimental procedures. (25 分)
3. The authors thought that *Ecklonia cava* may improve the endurance performance by its free-radical-scavenging. Based on the data presented, do you think this paper has sufficiently evidence to support this point? If yes, describe it (the evidence). If no, what kinds of markers you suggest to perform that may provide more data to explain it. (25 分)
4. The *Ecklonia cava* (EC) exhibits effective antioxidant activity. As a researcher, please design an experiment to investigate the possible benefits of EC in sports (such as improvement in performance, resistance to injury, useful for recovery, or decrease the fatigue). (25 分)

**Note: Subjects, Experimental design, Exercise protocol, Blood Collection and Analysis (markers), Statistical Analyses have to be included in the answer.**