

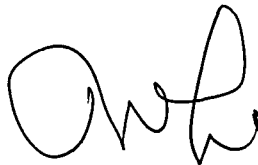
**EVALUATION ON THE DEGREE OF BITTERNESS OF GREEN MUSSEL (*Perna viridis*) PROTEIN HYDROLYSATE**

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**Final Year Project Report Submitted in  
Partial Fulfilment of the Requirements for the  
Bachelor of Science (Hons.) Food Science and Technology  
in the Faculty of Applied Sciences  
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## ABSTRACT

### EVALUATION OF THE DEGREE OF BITTERNESS OF GREEN MUSSEL(*Perna viridis*) PROTEIN HYDROLYSATE

Properties of protein hydrolysate prepared from green mussel (*Perna viridis*) by enzymatic hydrolysis using Alcalase® 2.4L at different pH and enzyme to substrate ratio were determined. Hydrolysis was performed using the pH-stat method. Mussel hydrolysate produced at pH 7 with E/S 5% had protein content of 37.17%. Mussel hydrolysate produced at pH 7 had low molecular weight peptide which was < 18 kDa. It also contain high amount of Methionine, Phenylalanine and Proline which contributed to bitter taste. Mussel hydrolysate produced at pH 7 was the most acceptable and the degree of bitterness was slightly bitter but not exceeded the bitterness of the standard caffeine. These results suggested that green mussel (*Perna viridis*) hydrolysates have the potential to be applied as a flavoring agent in the food since the bitterness is still in acceptable range.