ANTIOXIDANT AND TOXICITY STUDIES OF FRUIT PEEL EXTRACTS

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Final Year Project Report Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of Science (Hons.) Biology in the Faculty of Applied Sciences Universiti Teknologi MARA

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This Final Year Project Report entitled "**Antioxidant and Toxicity Studies of Fruit Peel Extracts**" was submitted by Hamira Azrin Binti Harun, in partial fulfillment of the requirement for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by

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ABSTRACT

ANTIOXIDANT AND TOXICITY STUDIES OF FRUIT PEEL EXTRACTS

In this study, the peel extracts of species from family Curcurbitacea that included C*ucumis melo var. cantalupensis*, *Cucumis melo var. inodorus* and *Citrullus lanatus* were investigated on their total phenolic content using Folin-Ciocalteau method, DPPH radical scavenging activity and toxicity. Methanol was used as the extracting solvents of each extracts. All of the three extracts exhibited the ability to scavenge free radicals. The highest scavenging effect was presented by methanolic extract of *Cucumis melo var. inodorus* (IC_{50}=4.61) which was corresponding to its highest total phenolic content (64.2 ± 0.10 µg GAE/ml). Meanwhile, the lethality concentration presented by each extracts was less than 10 µl/ml. The results of this study indicate that methanol provided good extraction but at the same time might interfered the toxicity level presented by each extract.