

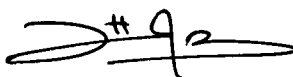
**PHYTOCHEMICAL SCREENING, ANTIOXIDANT AND
ANTIBACTERIAL ACTIVITIES OF *Citrus hystrix* LEAVES**

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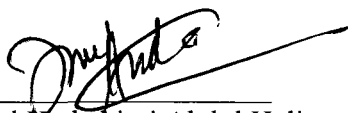
**Final Year Project Report Submitted In
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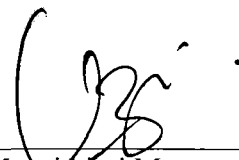
This Final Year Project Report entitled “**Phytochemical Screening, Antioxidant and Antibacterial Activities of *Citrus hystrix* Leaves**” was submitted by Syafiqah Alya binti Samlin, in partial fulfillment of the requirement for the Degree of Bachelor Science (Hons.) Chemistry, in the Faculty of Applied Sciences, and was approved by



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ABSTRACT

PHYTOCHEMICAL SCREENING, ANTIOXIDANT AND ANTIBACTERIAL ACTIVITIES OF *Citrus hystrix* LEAVES

Phytochemical screening, antioxidant and antibacterial activities, *Citrus hystrix* leaves have been studied. Different polarities of extraction solvents are used which are hexane, chloroform and ethanol. Ethanol crude gave the highest percentage yield (3.14%) followed by chloroform and hexane. Secondary metabolites which are flavanoid, alkaloid, sterol, steroid, tannin, phenol, terpenoid and glycoside are presence in ethanol crude extract except saponin. Antibacterial activities against *Staphylococcus aureus*, *Bacillus subtilis*, *Escherichia coli* and *Salmonella typhi* were conducted. Disc diffusion method gave a result of highest inhibition zone by hexane crude extract against *S. aureus* (17 mm) while *E.coli* has no inhibition zone against chloroform and ethanol. TLC analysis conducted by using hexane and chloroform as the combination of solvent system with (1:9) ratio gave the best separation of compound under long (365 nm) and short (254 nm) wavelength of UV lamp. The most antioxidant compounds were traced in ethanol crude extract by using thin layer chromatography (TLC) bioautography.