

**EVALUATION OF ANTIMICROBIAL PROPERTIES AND  
TOXICITY OF *Abelmoschus esculentus* EXTRACT**

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This Final Year Project Report entitled “**Evaluation of Antimicrobial Properties and Toxicity of *Abelmoschus esculentus* leaves extracts**” was submitted by Nur Dahlia bt Razali, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Biology, in the Faculty of Applied Sciences, and was approved by



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## ABSTRACT

### EVALUATION OF ANTIMICROBIAL PROPERTIES OF *Abelmoschus esculentus* METHANOLIC LEAVES EXTRACT AND TOXICITY

The aim for this study is to evaluate the antimicrobial properties of *Abelmoschus esculentus* methanolic leaves extract against two Gram negative bacteria (*Escherichia coli* and *Pseudomonas aeruginosa*) and two Gram positive bacteria (*Staphylococcus aureus* and *Bacillus subtilis*) by using disc diffusion method. The minimum inhibitory concentration (MIC) of the methanolic plant extract was tested using macro dilution method. The *A.esculentus* leaves extract only shows antibacterial activity against *Staphylococcus aureus*. Then, the result was further tested with MIC, MBC and finally tested for toxicity. The MIC value for *S.aureus* is 6.25 mg/mL and the MBC value is also 6.25 mg/mL Based on toxicity test on *Artemia salina*, the *Abelmoschus esculentus* leaves extract is considered as nontoxic and might be safe to use in human. From the results, the *A.esculentus* leaves extract might be used as an antimicrobial compound and further studies of this plant is needed.