

PHYTOCHEMICAL STUDIES AND MEDICINAL PROPERTIES OF
Cinnamomum zeylanicum

NURASYIKIN BINTI BASIR

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Universiti Teknologi MARA**

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This Final Year Project Report entitled “**Phytochemical Studies and Medicinal Properties of *Cinnamomum zeylanicum***” was submitted by Nurasyikin binti Basir, in partial fulfilment of the requirements for the Degree of Bachelor Science (Hons.) Chemistry, in the Faculty of Applied Sciences, and was approved by



Dr Rohaiza binti Saat
Supervisor
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan



Nurul Huda binti Abdul Hali
Project Coordinator
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan



Mazni binti Musa
Head of Programme
B. Sc. (Hons.) Chemistry
Faculty of Applied Sciences
Universiti Teknologi MARA
72000 Kuala Pilah
Negeri Sembilan

Date: 8/8/17

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ABSTRACT

PHYTOCHEMICAL STUDY AND MEDICINAL PROPERTIES OF *Cinnamomum zeylanicum*

Phytochemical screening, antioxidant and antibacterial activities on stem bark of *Cinnamomum zeylanicum* has been studied. Cold extraction process was carried out using three different polarity of solvent which are hexane, chloroform and methanol. Methanol crude extract gives the highest percentage of yield compared to others which is 14.38%. Phytochemical screening shows the presence of many active compounds in methanol crude extract of *C. zeylanicum* in the form of secondary metabolites which are alkaloid, flavonoid, tannin, glycoside, steroid, quinone, saponin, sterol, phenol and terpenoid. All crude extracts of *C. zeylanicum* significantly inhibited the growth of the pathogenic bacteria such as *Bacillus subtilis*, *Staphylococcus aureus*, *Salmonella typhi* and *Escherichia coli*. Chloroform crude extract revealed the highest diameter of inhibition zone against pathogenic bacteria which is 23 mm to 52 mm. Moreover, thin layer chromatography (TLC) shown better separation in solvent system with ratio 1:9 of chloroform:hexane in hexane crude extract while 9:1 of chloroform:toluene in chloroform crude extract. Furthermore, all the crude extracts shown positive result in antioxidant activity using thin layer chromatography (TLC) bioautography.