SYNTHESIS, CHARACTERIZATION AND BIOLOGICAL APPLICATION OF SCHIFF BASE LIGAND AND ITS Cu(II) AND Fe(II) COMPLEXES DERIVED FROM 2,4-DIHYDROXYBENZALDEHYDE AND 1,3-DIAMINOPROPANE

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This Final Year Project entitled **"Synthesis, Characterization and Biological Application of Schiff Base Ligand and Its Cu(II) and Fe(II) Complexes Derived from 2,4-Dihydroxybenzaldehyde and 1,3-Diaminopropane"** was submitted by Noorhafizah Binti Zakaria, in partial fulfillment of the requirements for the Degree of Bachelor of Science (Hons.) Applied Chemistry, in the Faculty of Applied Sciences, and was approved by

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ABSTRACT

SYNTHESIS, CHRACTERIZATION, DNA CLEAVAGE AND TOXICITY STUDIES OF SCHIFF BASE LIGAND DERIVED FROM 2,4-DIHYDROXYBENZALDEHYDE AND 1,3-DIAMINOPROPANE AND ITS Fe(II) AND Cu(II) COMPLEXES.

A Schiff base was prepared by the condensation reaction of 2,4-dihydroxybenzaldehyde and 1,3-diaminopropane (2:1). Metal complexes of the Schiff base were derived from condensation of 2,4-dihydroxybenzaldehyde and 1,3-diaminopropane with their metal complexes Cu(II) acetate dihydrate and as well as Fe(II) acetate. The metal complexes were prepared by using the template method in ratio of 2:1. Both ligand and metal complexes were reported and characterized based on elemental analysis, FTIR Spectroscopy, magnetic susceptibility, ^{1}H NMR and molar conductance. All the compound had been apply for their ability to cleave the DNA and toxicity.