### Monitors for Fibrogenic Activity in Rheumatic Heart Disease Among Egyptian Children

Thesis Submitted for Partial Fulfillment of M.Sc. Degree in Pediatrics

Sie 3295

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# بالمالي المنابع

و لله ملك السماوات والأرض وإلى الله المصير

🏶 سورة النور – الآية 21 🏶

قل لن يصيبنا إلى ما كتب الله لنا هو مولانا وعلى الله فليتوكل المؤمنون

🅏 سورة التوبة – الآية ٥٠ 🅏

وقل اعملوا فسيرى الله عملكم ورسوله والمؤمنون وستردون إلى عالم الغيب والشهادة فينبئكم بما كنتم تعملون

🕏 سورة التوبة – الآية ١٠٤ 🅏

صدق الله العظيم

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### **List of Abbreviations**

A-V ring : Atrioventricular ring

ANOVA : Analysis of variance

ASOT : Antistreptolysin O titer

B : Basophils

BSA : Bovine serum albumin

CRP : C-reactive protein

DNA : Deoxyribonucleic acid

DNase : Deoxyribonuclease

E : Eosinophils

ECG: Electrocardiogram

EM : Electron microscope

ER : Endoplasmic reticulum

ESR : Erythrocyte sedimentation rate

Fib. : Fibronectin

HLA : Human leukocyte antigen

I.M. : Intramuscular

IgG : Immunoglobulin G

Lymph : Lymphocytes

M : Mean

MI : Mitral incompetence

mRNA : messenger ribonucleic acid

MS: Mitral stenosis

N : Neutrophils

NADase : Nucleic acid dehydrogenase

PBS : Phosphate buffered saline

PC : Procollagens

PIII : Procollagen III

R : Range

R.F. : Rheumatic fever

R.H.D. : Rheumatic heart disease

RBC : Red blood cell

S.D. : Standard deviation

Seg : Segmental

UDP : Uridyl diphosphate

WBC : White blood cell

WHO : World Health Organization

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