# NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

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### FACULTY OF SCIENCE

### DEPARTMENT OF APPLIED BIOLOGY AND BIOCHEMISTRY

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DATE ACCESSION CLASS N

847

PROJECT TITLE

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The effect of serum storage duration on liver function test

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Submitted in partial fulfillment of the requirements

for the Bachelor of Science Honours Degree in

Applied Biology and Biochemistry

project supervisor Prof. T. Djarova

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#### ABSTRACT

The aim of the project was to find out the effect of serum storage duration on the concentration of six biochemical substances, (bilirubin, alkaline phosphatase, aspartate transaminase, total protein, albumin and globulin) commonly used in the diagnosis of certain hepatic malfunctions. (Liver function testing). The six substances were assayed for in twelve serum specimens on only three days of a five day period because of severe financial constraints. The analysis was on the day of receipt, a day after and then three days later. Notable changes in most of the analytes were observed four days after specimen receipt. Using the paired comparison ttest to compare day 1 with day 5 values statistically significant differences were obtained for bilirubin, globulin and alkaline The concentrations of the first substance were phosphatase. declining on storage and those of the later two were apparently increasing. The other analytes showed nominal changes if any at all during the five day period.