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**ASSESSMENT ON PERFORMANCE OF STUDENTS IN INDEX AND
LOGARITHMS AMONG FORM 5 STUDENTS IN SMK SEKSYEN 7, SHAH
ALAM, SELANGOR**

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ABSTRACT

The purpose of this research was to assess performance of students in index and logarithms among Form 5 students in Sekolah Menengah Kebangsaan Seksyen 7, Shah Alam. A total of 77 students that came from different type of streams which were pure science streams, science engineering streams and science account streams were participated in this study. The instrument used to assess performance of students in index and logarithms was constructed based on three levels of difficulties which are easy, medium and hard levels. The Shapiro-Wilk test was used to check normality of the distribution. Since the distribution was not normal, whenever applicable, all test used will be for non-normal distribution. The overall performance of students in index and logarithms based on the analysis data was average. There was no significant difference in performance of students in index and logarithms between genders. There was significant difference in performance of students in index and logarithms between streams, grades in Mathematics Subject (End Year Examination Form 4) and levels of difficulties. There was correlation between performance of the students in index and grades in Additional Mathematics Subject (End Year Examination Form 4). From the qualitative data, there were common mistakes that usually done by the students based on level of difficulties of question. Overall, the students can master in index and logarithms topic if they were given many exercise on it.

CHAPTER 1

INTRODUCTION

1.0 Introduction

The ability of the students in index and logarithms topic is important because the topic has been applied in most of the other topics in mathematics subject especially in additional mathematics subject. If the students do not have the ability in index and logarithms topic, it might influence their achievement in additional mathematics subject. This is because there are many studies on how the ability of the students in index and logarithm might influence the students' achievement in the mathematics subject. For example, according to McCarthy (1999), he found that students' performance on an algebra skills test on entering a first semester calculus course was low because of students' understanding of the arithmetic aspects of logarithms is poor.

Nowadays, most students do not know the importance of index and logarithm in any of mathematics subject. From their point of view, index and logarithms are only one of the topic that are included in their mathematics subject syllabus, generally and additional mathematics subject specifically, which they need to learn only to pass their exam or test. Most of them also think that index and logarithms are the new knowledge that they need to learn when they are entering upper secondary level in school. However, they are wrong because index and logarithms are important because both are already