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**DEVELOPMENT OF SOME DEMONSTRATION EXPERIMENTS
TO TEACH PROJECTILE MOTION**

A PROJECT REPORT PRESENTED

BY

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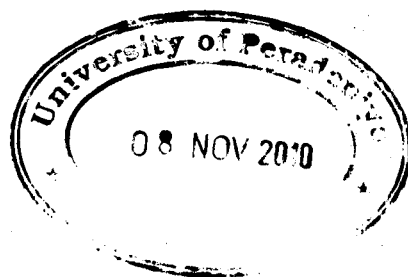
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ABSTRACT**DEVELOPMENT OF A DEMONSTRATION EXPERIMENT TO TEACH
PROJECTILE MOTION**

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The basics of Physics are mainly based on experiments. However, due to the great deal of time required for assembling and handling the experiments and preparing the relevant worksheets in the midst of availability of equipment in schools and necessity of covering the vast syllabus of Physics at General Certificate Examination (Advanced Level), teachers do not readily incorporate the experimental strategies in their classroom work. This situation results in providing only a vague idea about the concepts of Physics and it has given unfavorable effects on the achievements of the students in Physics.

With this background, a project was carried out to teach the main concepts of projectile motion in the General Certificate Examination (Advanced Level) Physics syllabus using demonstration experiments. A questionnaire was used to identify views, attitudes and opinions of a sample of teachers. The teachers highlighted the common problems of the teaching and learning process of the relevant unit.

The designed instrument can be used to show the variation of range with the velocity of projection and angle of projection. It is also used to see whether the total elastic potential energy stored in the spring is used up in providing the velocity to the projectile and to show that the range is at its maximum when the angle of projection is 45° to the horizontal. The obtained results were, to a great extent, in agreement with the theory. Worksheets for experiments related to the General Certificate Examination (Advanced Level) Physics syllabus were designed to increase the effectiveness of the experiments. This instrument could even be used in school laboratories or other institutions with minimum financial resources to teach the concepts of projectile motion.