



General Certificate of Education
Advanced Level Examination
June 2013

Physics

PHY6T/Q13/TN

Unit 6 Investigative and Practical Skills in A level Physics

Investigative Skills Assignment (ISA) Q

Instructions to Supervisors

Confidential

- These instructions are provided to enable centres to make appropriate arrangements for the Unit 6 ISA Q test.
- For further details of the administration of the ISA and for information about these instructions, please see the document *Guidance Instructions for the Administration of Investigative Skills Assignment (ISA): GCE Physics*.

ISA(Q) Damped SHM

Centre instructions for the investigation

In this ISA candidates will be investigating how the amplitude of oscillation of a mass on a string varies with time.

Information for Centres

Candidates can be told approximately one week before undertaking Stage 1 of the ISA that the investigation will be about the damping of oscillations and the exponential decay of the amplitude.

Stage 2 of the ISA (the written tests: Sections A and B) should be given as soon as possible after the practical investigation.

Apparatus

Each candidate will require:

- (a) a table tennis ball with a 600 mm length of cotton thread securely sellotaped or glued to it
- (b) a metre ruler and two small pieces of 'blu-tac' to keep the ruler in place.
- (c) a clamp and stand
- (d) a stopclock which measures to 0.01 s or better
- (e) a set square
- (f) a fiducial marker
- (g) two small blocks to clamp the thread.

The thread should be clamped between blocks, allowing a pendulum length of approximately 500 mm.