

Exemplar Extended Essay

SUBJECT: PHYSICS..... SESSION: May 2004

Category and candidate number								
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General assessment criteria <i>Refer to the general criteria</i>	ACHIEVEMENT LEVEL	Comments
A research question	2	Clear, precise, focused.
B approach	2	No information about the control of the temperature of water throughout the tube.
C analysis/interpretation	2	Graphical analysis of data: incomplete (max. min slope...) an equation is given without explanation; density data not verified with another source.
D argument/evaluation	3	Theoretical and experimental arguments are not fully substantiated; some explanations are superficial or not founded.
E conclusion	1	The conclusion is not clear; the impact of material phase on speed was not part of the research question.
F abstract	1	Which medium? What kind of device was used? What is meant by "direct positive correlation"?
G formal presentation	2	The graphs should be in the core of the essay; lack of organisation (headings). Procedure poorly explained. No reference to the appendix. Lack of diagrams.
H holistic judgement	2	Depth of understanding: limited. Procedure: lack of insight, inventiveness.
TOTAL OUT OF 24	15	

Subject assessment criteria <i>Refer to the subject guidelines</i>	ACHIEVEMENT LEVEL	Comments
Criterion J	2	Theoretical physics: superficial; equation $u = \sqrt{\frac{B}{r}}$ not explained.
Criterion K	2	No evidence of personal approach applied to the procedure presented more as “push button”; lack of explanation in some areas → lack of competence.
Criterion L	2	No uncertainty attached to the measurements of speed; some errors of calculation of uncertainties; no respect of insignificant digits; poor analysis of the sources of errors; no notion of experimental value within the range defined by the uncertainty attached to an experimental value.
Criterion M		
TOTAL OUT OF 12	6	