

Assessment Report

New Zealand Scholarship Physics 2016

Standard 93103

Part A: Commentary

Successful candidates were well prepared and had a sound grasp of the physics required at this level. Candidates who gained Scholarship with Outstanding Performance showed a breadth of conceptual understanding of physics which was fully complemented by their mathematical skills. They were also able to simply and clearly communicate their physics understanding across a wide variety of areas.

Some candidates, however, were not sufficiently prepared for this examination. There were a large number of candidates who were unable to complete all of the questions. There was evidence that these candidates had significant gaps in their conceptual understanding. Candidates require considerable exposure to various physics situations throughout their course work to enable them to demonstrate sufficient maturity of thought to achieve success in Scholarship Physics.

Part B: Report on performance standard

Candidates who were awarded **Scholarship with Outstanding Performance** commonly:

- displayed outstanding knowledge across the entire curriculum
- identified and applied appropriate strategies to solve difficult physics problems
- made no mathematical errors
- simply and clearly explained the use of physics principles in specific contexts
- identified relevant physics laws to use in solving problems.

Candidates who were awarded **Scholarship** commonly:

- had sound knowledge across most of the curriculum
- modelled problems with appropriate physics concepts
- explained physics concepts
- showed sound mathematical skills
- used components to solve problems
- used conservation laws to solve problems.

Other candidates commonly:

- did not answer the question being asked or used physics concepts incorrectly
 - showed limited mathematical skills
 - had difficulty writing clear and concise answers
 - did not answer large sections of the paper
 - provided confused explanations that were inconsistent with correct application of physical laws.
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