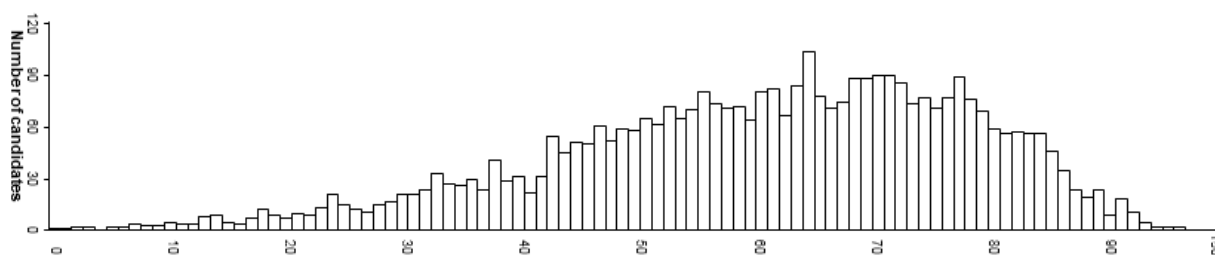




Summary report for candidates on the 2015 WACE examination in Physics Stage 3

Year	Number who sat	Number of absentees
2015	3802	65
2014	2778	36
2013	3666	41

Examination score distribution



Summary

Attempted by 3802 Candidates Mean 60.78% Max 96.95% Min 0

Section means were:

Section One: Short response

Mean 19.83%(/30) Max 30.00 Min 1.07

Section Two: Problem-solving

Mean 29.95%(/50) Max 48.86 Min 0.00

Section Three: Comprehension

Mean 11.18%(/20) Max 20.00 Min 0.00

General comments

The 2015 Physics Stage 3 examination was very successful. Overall performance was good with most candidates demonstrating a sound grasp of the concepts and skills of the course. The paper had a wide range of questions and problems that tested a variety of techniques and skills, including vector diagrams and free-body and field diagrams. Candidates' responses revealed areas of relative strength including gravity and orbits, circular motion, atomic energy levels and the graphing and analysis of scientific data. Areas of relative weakness included the drawing of diagrams; sketching diagrams to assist problem-solving as in Questions 5 and 8 and the application of fundamental concepts such as acceleration and force, Faraday's law and Lenz's law.

Advice for candidates

- When drawing diagrams of fields, pay careful attention to details such as the direction and relative spacing of the field lines, and field lines not crossing or touching.
- When drawing free-body diagrams, you should include only applied (not resultant) forces. For example, centripetal forces are always resultant forces.
- When drawing graphs, it is important to plot the error bars with care, and ensure that the line of best fit stays within the error bars.

Comments on specific sections and questions

Section One: Short response Attempted by 3801 Candidates

Mean 19.83(/30) Max 30.00 Min 1.07

Section One has an average of 65%. The questions were mostly on the fundamental principles in the syllabus and in general were answered well by most of the candidates. A number of candidates was able to attain near-perfect scores in this section.

Section Two: Problem-solving Attempted by 3796 Candidates

Mean 29.95(/50) Max 48.86 Min 0.00

Section Two was generally done well with a mean somewhat lower than for Section One. Most of the Section Two questions had means around 60%, with Questions 12 and 14 being the easiest (both means over 70%) and Questions 17 and 18 the hardest (both means below 45%).

Section Three: Comprehension Attempted by 3755 Candidates

Mean 11.18(/20) Max 20.00 Min 0.00

The mean of Section Three was lower than the means for Sections One and Two, reflecting the difficulty that candidates have in applying familiar laws and principles in unfamiliar situations.