

Physics

WACE written examination—2010 design brief

Stage 3

Time allowed

Reading time before commencing work: ten minutes
Working time for paper: three hours

Permissible items

Standard items: pens, pencils, eraser, correction fluid, ruler, highlighter
Special items: non-programmable scientific calculators, drawing templates, drawing compass and a protractor

Additional information

The examination is weighted approximately equally between Unit 3A and Unit 3B.
The weighting of the content areas of the examination are within the following ranges:

15–20%	Working in Physics
20–25%	Motion and forces in a gravitational field
15–20%	Electricity and magnetism
20–25%	Particles, waves and quanta
15–20%	Motion and forces in electric and magnetic fields

These weightings apply to the whole exam rather than individual sections.
A weighting of 2–3% is allocated for appropriate use of units and significant digits across the whole paper.

A combined question/answer booklet will be used. Instructions to candidates will indicate that, unless otherwise specified, their working or reasoning should be shown clearly when calculating or estimating answers. A formulae and constants insert sheet (A4 booklet size) will be provided.

Section	Supporting information
Section One Short answer 25–35% of the written exam 10–15 questions Suggested working time: 40–60 minutes	Formats include short questions that relate to: scenarios, diagrams, tables, laboratory work, calculations, estimations, derivations, explanations, and predictions. Suitable stimulus materials for scenarios include original material, scientific journals and current events in which physics is involved.
Section Two Problem-solving 45–55% of the written exam 4–8 questions Suggested working time: 75–100 minutes	Formats include scaffolded questions with parts that relate to scenarios, diagrams, tables, laboratory work, calculations, estimations, derivations, explanations and predictions. Stimulus material is used and includes scenarios and second-hand data.
Section Three Comprehension 15–25% of the written exam 1–2 questions Suggested working time: 35–50 minutes	Questions in this section introduce candidates to unfamiliar contexts, including investigations, requiring them to apply learned concepts, principles and strategies to solve problems using the unfamiliar content. Formats include scaffolded questions with parts that relate to a written or graphical stimulus which should not exceed one page in length.