

**GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**GATEWAY SCIENCE**

**B753**

**PHYSICS B**

Unit B753: Physics controlled assessment: Analysis and evaluation

**Controlled assessment**

**Candidate answer booklet – Part 3: Analysis and evaluation**

Candidates answer on this answer booklet

**OCR Supplied Materials:**  
None

**Other Materials Required:**

- Graph paper
- Calculator
- Written work from Part 1 and Part 2


Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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**INSTRUCTIONS TO CANDIDATES**

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Attach to this booklet:
  - your research (Part 1 of the task)
  - your plan for the investigation and your results (Part 2 of the task)

**INFORMATION FOR CANDIDATES**

- Your quality of written communication is assessed in questions marked with a pencil (.
- You may use a scientific calculator.
- You are advised to show all the steps in any calculations.
- The total number of marks for the task is **48**.
- This document consists of **4** pages. Any blank pages are indicated.

Skill quality	Max	Mark
Researching	6	
Planning	6	
Collecting data	6	
Managing risk	6	
Processing data	6	
Analysing and interpreting	6	
Evaluating	6	
Justifying a conclusion	6	
<b>TOTAL</b>	<b>48</b>	

## Speaker wires

In home cinema and hi-fi systems, electrical wires connect the amplifier to the speakers. The quality of the sound produced can depend upon the thickness of these wires.

1 Process the data you have collected and plot a graph(s) to show the results of your investigation.

2 Describe any patterns or trends in your results. Comment on any unexpected results.

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3 How do the patterns in your results compare with any patterns in the data you collected in your research?

Comment on any similarities and differences. Suggest possible reasons for any differences.

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4  Evaluate your results, the method you used and how well you managed the risks.

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5 Do your results from Part 2 support the hypothesis you suggested? Explain your answer.

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6 Use the results from your investigation and your research to describe what factors should be considered to get good quality sound using speaker wires.

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