

MARKING SCHEME CHEMISTRY JUNE 2013 PAPER 2 Academic PDF

marking scheme chemistry june 2013 paper 2 is a crucial resource for students preparing for their chemistry examinations, especially those seeking to understand the detailed assessment criteria and scoring pattern for that particular exam. This marking scheme provides insight into how each question is evaluated, what points are awarded for specific answers, and the expected level of detail required to secure full marks. Understanding the marking scheme is essential for students aiming to maximize their scores, as it helps guide their answer-writing strategies, highlights important concepts, and clarifies the examiner's expectations. In this article, we will explore the marking scheme for the June 2013 Chemistry Paper 2 in detail, analyze the structure of the questions, and offer tips on how to approach each section effectively.

Overview of the Chemistry June 2013 Paper 2

The June 2013 Chemistry Paper 2 was designed to assess students' understanding of fundamental concepts, their ability to apply formulas, interpret data, and describe experimental procedures. The paper typically comprises multiple sections, including multiple-choice questions, short-answer questions, and long-answer questions. The emphasis is on not just rote memorization but also on application and reasoning.

The marking scheme breaks down each question into specific parts, indicating how many marks are allocated and what the examiner expects in terms of answers. This detailed breakdown helps students identify which parts require thorough explanations and which are more straightforward.

Understanding the Structure of the Marking Scheme

The marking scheme for June 2013 Paper 2 can be divided into several key components:

1. Section-wise Mark Allocation

Each section of the paper has a predetermined mark distribution:

- Section A: Multiple Choice and very short answer questions (typically 10-15 marks)
- Section B: Short-answer questions (usually 20-25 marks)
- Section C: Longer, more detailed questions requiring explanation, calculations, or diagrammatic representation (around 20-25 marks)

Understanding this distribution helps students prioritize their time and effort during the exam.

2. Question-specific Marking Criteria

For each question, the marking scheme provides:

- The total marks available
- The key points or steps that need to be included in the answer
- Common errors that may lead to loss of marks
- Model answers or indicative points for full credit

This detail is vital for avoiding common pitfalls and ensuring completeness in responses.

Analyzing Key Questions from the June 2013 Paper 2 Marking Scheme

Let's delve into some typical questions from the June 2013 paper, examining how the marking scheme guides answers.

Question 1: Atomic Structure and Elements

This question might ask students to explain the electronic configuration of an element, or to relate atomic structure to properties.

Marking Scheme Highlights:

- Correctly stating the electronic configuration earns full marks (e.g., 2,8,1 for sodium).
- Partial answers that include only the number of electrons or incorrect configurations may earn fewer marks.
- Explanation of how electronic configuration influences chemical reactivity or atomic radius can fetch additional marks.

Tips:

- Always write the full configuration.
- Use proper notation (e.g., $2s^2 2p^2 3s^1$).
- Support explanations with brief reasoning.

Question 2: Chemical Bonding and Molecules

This might involve drawing Lewis structures, explaining bond types, or predicting molecular shapes.

Marking Scheme Highlights:

- Correct Lewis structure with all electrons shown: full marks.
- Mention of bond polarity, bond angles, or molecular geometry: additional marks.
- Clear, labeled diagrams are often rewarded.

Tips:

- Practice drawing accurate Lewis structures.
- Label all atoms and electrons.
- Briefly mention the type of bonds (ionic, covalent, polar covalent).

Question 3: Acid-Base and pH Calculations

Questions often involve calculating pH, pOH, or titration data.

Marking Scheme Highlights:

- Correctly applying the formula $\text{pH} = -\log[\text{H}^+]$: full marks.
- Accurate calculation of concentrations, volumes, or titrant data.
- Proper unit usage and significant figures.

Tips:

- Write down formulas clearly.
- Show all calculation steps.
- Use consistent units.

Common Features of the Marking Scheme for Chemistry June 2013 Paper 2

The marking scheme shares several common features that can help students decode how answers are evaluated.

Clarity and Precision

- Answers that directly address the question are awarded full marks.
- Vague or incomplete responses result in mark deductions.

Step-wise Marking

- Many questions are marked in sections, with each part of the answer contributing to the total.
- For example, a numerical calculation might have marks for setting up the equation, substitution, and final answer.

Diagrammatic and Tabular Responses

- Properly labeled diagrams or tables can significantly boost scores.
- Accuracy and neatness are often rewarded.

Strategies for Using the Marking Scheme Effectively

Understanding the marking scheme is only half the battle; applying this knowledge during preparation and exams is crucial.

1. Practice with Past Papers

- Regularly solve previous years' papers, including the June 2013 paper.
- Cross-reference your answers with the marking scheme to identify what is needed for full marks.

2. Focus on Keywords and Phrases

- Pay attention to the specific terms highlighted in the marking scheme.
- Use appropriate scientific terminology in your answers.

3. Manage Time Wisely

- Allocate sufficient time to questions with higher mark values.
- Don't spend too long on questions that carry fewer marks.

4. Revise Key Concepts

- Ensure a solid understanding of core topics such as atomic structure, bonding, acids and bases, and thermodynamics.
- The marking scheme emphasizes these areas through the allocation of marks.

Conclusion

The marking scheme for the June 2013 Chemistry Paper 2 serves as an invaluable guide for students aiming to excel in their exams. By understanding how answers are evaluated, students can tailor their preparation to focus on scoring criteria, avoid common pitfalls, and craft answers that align with examiner expectations. Remember, success in chemistry not only depends on knowledge but also on strategic answer presentation guided by the insights provided by detailed marking schemes. Regular practice, coupled with a thorough understanding of the marking pattern, will undoubtedly enhance your confidence and performance in future assessments.

Marking Scheme Chemistry June 2013 Paper 2: A Comprehensive Review

The marking scheme for the June 2013 Chemistry Paper 2 has garnered significant attention among students and educators alike. As one of the critical components in assessing student understanding and application of chemistry concepts, the marking scheme provides valuable insight into how examiners allocate marks across various questions, the expected level of detail, and the prioritization of different topics. This review aims to dissect the marking scheme in detail, analyze its structure, and offer useful tips for students preparing for similar exams.

Overview of the Chemistry June 2013 Paper 2 Marking Scheme

The marking scheme for this paper is designed to balance accuracy, clarity, and thoroughness. It reflects the examiners' expectations and the level of depth required for each question. Typically, Paper 2 covers organic and inorganic chemistry, with questions spanning from basic concepts to more complex applications.

The paper is divided into multiple sections, each with specific weightings and directives. The marking scheme explicitly details how marks are distributed, common pitfalls, and the key points that students must include in their answers to maximize scores. Understanding this scheme is crucial for effective exam preparation and answering strategies.

Structure and Content of the Marking Scheme

Section-wise Breakdown

The marking scheme generally follows the structure of the question paper, which includes:

- Section A: Multiple-choice or short-answer questions focusing on basic concepts.
- Section B: Longer, descriptive questions requiring detailed explanations, calculations, or chemical equations.
- Section C: Application-based or synoptic questions integrating multiple topics.

Each section's marking scheme specifies:

- Number of marks allocated per question.
- Key points and steps expected in the answer.
- Common misconceptions or errors to avoid.

Key Features of the Marking Scheme

- Explicit marking points: Clear breakdowns of marks for each step or concept, ensuring students know where to focus.
- Stepwise scoring: For calculation questions, marks are awarded for correct setup, intermediate steps, and final answers.
- Indicative content: Sample points that should be included to secure full marks.
- Partial credit: Guidelines for awarding partial marks when answers are partially correct.

Analysis of Major Questions and Their Marking Schemes

Organic Chemistry Questions

Organic chemistry is a significant component in the paper, often involving mechanisms, nomenclature, and reactions.

Sample Question: Describe the mechanism of nucleophilic substitution in haloalkanes.

Marking Scheme Highlights:

- Correct identification of the mechanism type (SN1 or SN2) ? 1 mark.
- Step-by-step breakdown of the mechanism ? 2-3 marks.
- Proper depiction of transition states, intermediates, and leaving groups ? 2 marks.
- Correct final product ? 1 mark.

Pros:

- Emphasizes clarity in depicting mechanisms.
- Rewards understanding of each mechanistic step.

Cons:

- Might be challenging for students unfamiliar with detailed mechanisms.
- Overlooking intermediate structures can lead to loss of marks.

Features:

- Clear allocation encourages thorough explanations.
- Guides students to include all key mechanistic features.

Inorganic Chemistry Questions

These questions often involve properties, periodic trends, and reactions of elements.

Sample Question: Explain the trend in oxidation states of transition metals.

Marking Scheme Highlights:

- Accurate explanation of electronic configuration influence ? 2 marks.
- Periodic table trends and variable oxidation states ? 2 marks.
- Examples of specific metals illustrating the trend ? 1-2 marks.

Pros:

- Promotes understanding of periodic trends.
- Connects theory with real examples.

Cons:

- Students may provide generic responses lacking specifics.

- Need for precise explanations to score full marks.

Features:

- Encourages use of specific element examples.
- Balances conceptual and factual knowledge.

Application and Calculations

Quantitative questions are integral, testing students' ability to apply formulas and concepts accurately.

Sample Question: Calculate the empirical formula of a compound containing 40% carbon, 6.7% hydrogen, and 53.3% oxygen by mass.

Marking Scheme Highlights:

- Correct conversion of percentages to moles ? 3 marks.
- Proper ratio determination ? 2 marks.
- Final empirical formula derivation ? 2 marks.

Pros:

- Clear stepwise approach aids students in structuring their responses.
- Partial credit encourages showing all steps.

Cons:

- Minor calculation errors can lead to significant mark loss.
- Students must be meticulous with units and ratios.

Features:

- Emphasizes methodical problem-solving.
- Rewards logical and organized calculations.

Common Pitfalls and How the Marking Scheme Addresses Them

- Incomplete answers: The scheme specifies minimum points needed for partial credit, guiding students on what to include.
- Mislabeling diagrams: Clear instructions on labeling structures correctly are provided.
- Incorrect units or significant figures: Marks are awarded for correct units; penalties are indicated for inaccuracies.
- Omitting explanations: The scheme stresses the importance of reasoning, not just final answers.

Implications for Students and Educators

For Students:

- Familiarity with the marking scheme enables targeted revision.
- Understanding the allocation guides answer structuring.
- Practice with past marking schemes improves exam technique.

For Educators:

- The scheme provides a benchmark to assess student responses.
- Helps in designing model answers and marking guides.
- Facilitates consistent marking standards across evaluators.

Pros and Cons of the June 2013 Marking Scheme

Pros:

- Detailed and transparent, reducing ambiguity.
- Encourages comprehensive understanding.
- Supports fair and uniform evaluation.

Cons:

- Can be perceived as rigid, discouraging creative approaches.
- Heavy emphasis on specific points may limit interpretive responses.

Conclusion

The marking scheme for the Chemistry June 2013 Paper 2 serves as an essential tool for understanding the examiners' expectations and optimizing student performance. Its detailed breakdown of marks, emphasis on key points, and systematic approach provide a roadmap for effective answering. While it offers numerous benefits, students must also develop a deep conceptual understanding beyond rote memorization to excel. Educators can leverage this scheme to refine teaching strategies and assessment standards. Overall, familiarity with such marking schemes enhances the fairness and quality of chemical education and assessment.

By analyzing the scheme thoroughly, students can identify areas requiring more focus, refine their exam techniques, and ultimately improve their scores. As the foundation of effective exam preparation, understanding the marking scheme is an investment that pays dividends in academic success.

QuestionAnswer What are the key topics covered in the June 2013 Chemistry Paper 2 marking scheme? The marking scheme of the June 2013 Chemistry Paper 2 primarily covers topics like chemical bonding, periodic table trends, acids and bases, hydrocarbons, and environmental chemistry, with detailed marking allocations for each section. How are marks distributed in the June 2013 Chemistry Paper 2 marking scheme? Marks are distributed based on question type, with multiple-choice questions typically carrying 1 mark each, short-answer questions ranging from 2 to 3 marks, and long-answer questions allocated 4 to 6 marks, depending on complexity. What are common mistakes students should avoid according to the June 2013 marking scheme? Students should avoid vague answers, missing out on key points, incorrect chemical formulas, and failing to show proper steps in calculations, as these errors lead to loss of marks per the marking scheme. How can understanding the June 2013 marking scheme help in preparing for future exams? Analyzing the marking scheme helps students understand the examiners' expectations, allocate time effectively, and focus on important topics and answer formats, thereby improving overall performance. Are there any specific strategies suggested by the June 2013 marking scheme for scoring higher marks? Yes, the marking scheme emphasizes clarity in answers, proper use of chemical terminology, complete reactions and equations, and detailed calculations, all of which can help students maximize their scores.

Related keywords: chemistry marking scheme, June 2013 paper 2, chemistry exam answers, marking guidelines, chemistry question paper, June 2013 chemistry solutions, answer key chemistry 2013, chemistry paper 2 solutions, marking scheme for chemistry, June 2013 chemistry exam

Wace Human Biology Exams Marking Key

wace human biology exams marking key serves as a vital resource for students, educators, and examiners preparing for the WACE (Western Australian Certificate of Education) Human Biology exams. Accurate marking keys are essential for ensuring fair assessment, consistency across marking centers, and providing students with reliable feedback on their performance. This comprehensive guide aims to clarify the importance of the WACE Human Biology exams marking key, outline how it is developed, and offer practical insights into its application for effective exam preparation and grading.

Understanding the WACE Human Biology Exams Marking Key

What Is the Marking Key?

The WACE Human Biology exams marking key is an officially provided document that details the correct answers, marking guidelines, and scoring criteria for each question on the exam. It is an essential tool used by examiners to ensure that marks are awarded consistently and accurately.

Purpose of the Marking Key

The marking key serves multiple purposes:

- Standardization: Ensures all examiners interpret and grade responses uniformly.
- Guidance: Provides detailed instructions for marking various question types.
- Fairness: Maintains equity in scoring, minimizing subjective judgment.
- Feedback: Assists students in understanding how their answers are evaluated.

Components of the WACE Human Biology Exam Marking Key

1. Correct Answers

The core of the marking key includes the officially accepted correct responses for multiple-choice, short-answer, and extended-response questions.

2. Marking Guidelines

This section offers detailed instructions for grading:

- How to allocate marks for each part of a question.
- Criteria for awarding partial credit.
- Common misconceptions and errors to watch for.

3. Sample Responses

Sample answers demonstrate the expected level of detail and accuracy, helping markers assess responses appropriately.

4. Marking Schemes

A structured breakdown that maps each question to its corresponding marks, ensuring transparency and consistency.

How the Marking Key Is Developed

Collaborative Process

The marking key development involves collaboration among experienced biology teachers, examiners, curriculum specialists, and assessment experts. The process generally includes:

- Analyzing the exam questions.
- Establishing correct responses based on curriculum standards.
- Developing marking rubrics aligned with learning outcomes.
- Pilot testing and review to refine marking criteria.

Review and Validation

Before release, the marking key undergoes rigorous review to:

- Confirm accuracy of responses.
- Ensure clarity of marking instructions.
- Address potential ambiguities.

Applying the WACE Human Biology Exam Marking Key

For Teachers and Markers

Teachers involved in marking should:

- Familiarize themselves thoroughly with the marking key prior to grading.
- Follow the guidelines carefully to ensure consistency.

- Use sample responses to calibrate grading.
- Document any uncertainties or discrepancies during marking for review.

For Students

Understanding the marking key can help students:

- Clarify what examiners look for in responses.
- Develop answers aligned with expected standards.
- Use past marking keys for practice and self-assessment.

For Exam Preparation

Students preparing for the WACE Human Biology exams should:

- Review the official marking keys once released.
- Practice answering questions with the marking criteria in mind.
- Focus on providing detailed, accurate responses to maximize marks.

Key Strategies for Effective Use of the Marking Key

- **Practice with Past Papers:** Use previous exam papers and compare your answers with the marking key to identify areas for improvement.
- **Understand Marking Criteria:** Pay attention to how marks are allocated for each question to prioritize key points in your responses.
- **Simulate Exam Conditions:** Time yourself while practicing to mirror test conditions, then review your responses against the marking guide.
- **Seek Clarification:** When in doubt about marking standards, consult teachers or examiners for clarification.
- **Focus on Quality and Detail:** Provide comprehensive answers that meet the depth required by the marking criteria.

Common Challenges and How to Overcome Them

Understanding Marking Nuances

Some questions may have nuanced marking criteria, making it essential to:

- Study the detailed marking guidelines.
- Practice writing answers that meet specific standards.

Handling Partial Credit

Maximizing marks often involves:

- Including relevant details even if the answer isn't perfect.
- Structuring responses logically and clearly.

Dealing with Ambiguous Questions

If a question seems ambiguous:

- Refer back to the curriculum and marking guidelines.
- Provide a well-reasoned answer based on biological principles.

Benefits of Using the WACE Human Biology Exams Marking Key

- Ensures consistency and fairness in grading across different examiners.
- Provides transparency for students about how their responses are evaluated.
- Helps teachers and markers maintain high standards of assessment.
- Enables effective self-assessment and targeted exam preparation.
- Supports curriculum alignment by emphasizing key concepts and skills.

Conclusion

The WACE Human Biology exams marking key is an indispensable resource that underpins fair and consistent assessment practices. By understanding its components, development process, and application strategies, students can enhance their exam preparation, teachers can mark with confidence, and examiners can uphold assessment integrity. Regularly reviewing the marking key and practicing responses aligned with its standards will ultimately lead to improved performance and a deeper understanding of human biology concepts.

Additional Resources

- Official WACE Human Biology Exam Papers and Marking Keys (available through the Western

Australian Curriculum and Assessment Authority)

- Study guides and practice questions aligned with the WACE syllabus
- Workshops and training sessions for markers and teachers

Optimizing Your Study Strategy with the Marking Key

Incorporate the marking key into your study routine by:

- Analyzing sample responses and identifying key points.
- Creating model answers based on marking criteria.
- Seeking feedback from teachers on practice responses.
- Tracking progress over time and adjusting study techniques accordingly.

By leveraging the detailed insights provided by the WACE Human Biology exams marking key, students can approach their assessments with confidence, clarity, and a strategic plan for success.

WACE Human Biology Exams Marking Key: An In-Depth Analysis of Standards, Practices, and Implications

The Western Australian Certificate of Education (WACE) Human Biology exams are a critical component of secondary education assessment, designed to evaluate students' understanding of complex biological concepts and their ability to apply scientific reasoning. Central to the integrity and fairness of this assessment process is the WACE human biology exams marking key, a comprehensive guide that delineates the correct responses, marking criteria, and standards for each question. This article provides an investigative review into the development, application, and implications of the marking key, elucidating its role in ensuring equitable assessment outcomes.

Understanding the WACE Human Biology Exams Marking Key

The marking key serves as the authoritative reference used by examiners to score student responses consistently and objectively. It is the culmination of meticulous construction by curriculum developers, subject experts, and assessment authorities who aim to balance comprehensive coverage of syllabus content with clarity and fairness.

The Composition of the Marking Key

Typically, the marking key encompasses:

- Model Answers: Detailed responses for each question, including accepted terminology, key

concepts, and acceptable variations.

- Marking Criteria: Explicit guidelines on how marks are allocated, including partial credit considerations.
- Response Coding: Annotations for common student misconceptions or errors, aiding examiners in discriminating between correct, partially correct, and incorrect responses.
- Rubrics for Extended Responses: Structured scoring guides for essays or extended-answer questions that assess depth of understanding and scientific reasoning.

The marking key is often accompanied by a standardisation document that provides instructions on applying the scoring criteria uniformly across different examiners and sessions.

Development and Validation of the Marking Key

Creating an effective marking key is a rigorous process involving multiple stages:

Item Development

Question writers craft items aligned with the WACE syllabus, ensuring they target core learning outcomes. These questions are designed to assess a spectrum of cognitive skills, from recall to analysis.

Initial Marking and Pilot Testing

A sample of student responses from pilot assessments is scored using provisional marking keys. This phase identifies ambiguities, inconsistencies, or overly harsh/lenient marking standards.

Expert Review and Consensus Building

Assessment specialists and subject teachers review initial markers' results, discussing discrepancies and refining the marking criteria to improve clarity and fairness.

Standardisation and Moderation

Before the final exam, markers undergo training sessions where they collaboratively score sample responses, ensuring a shared understanding of applying the marking key. This process minimizes variability and promotes reliability.

Post-Exam Validation

After the exam, statistical analyses such as item response theory (IRT) and classical test theory (CTT) are employed to confirm the marking key's effectiveness and fairness across diverse student

populations.

Application of the Marking Key in Exam Scoring

Examiners use the marking key meticulously to evaluate student responses. The process involves:

- Reading student answers thoroughly.
- Comparing responses against the model answer and marking criteria.
- Awarding marks based on correctness, completeness, and demonstration of understanding.
- Noting common misconceptions or errors as per the coding system in the marking key.
- Applying partial credit where appropriate, especially in multi-part questions.

This systematic approach ensures consistency, fairness, and transparency in scoring, which is essential for maintaining the credibility of the assessment process.

Implications of the Marking Key for Student Outcomes

The marking key's accuracy and clarity have direct implications on student results and subsequent academic pathways.

Ensuring Fairness and Equity

A well-designed marking key ensures that all students are evaluated against the same standards, regardless of examiner or session variations. It helps in:

- Reducing subjective bias.
- Recognizing partial knowledge through incremental marking.
- Providing clear benchmarks for expected responses.

Supporting Diagnostic Feedback

Analysis of student responses against the marking key can highlight common misconceptions, informing educators and curriculum developers about areas needing reinforcement.

Impact on Academic Progression

Accurate marking ensures that students' grades genuinely reflect their understanding, influencing their eligibility for further education opportunities, scholarships, and career pursuits.

Challenges and Criticisms of the Marking Key System

Despite its importance, the marking key system faces several challenges:

Ambiguity in Responses

Students often produce responses that are correct but diverge from model answers in wording or structure, leading to potential under-marking if the key is too rigid.

Subjectivity in Partial Credit

Deciding the extent of partial credit can be subjective, especially in open-ended questions. Variability in examiner judgment can affect fairness.

Evolving Scientific Knowledge

Biology is a dynamic field; the marking key must be regularly updated to reflect current scientific understanding and terminology.

Resource Intensive Development

Creating, standardizing, and updating the marking key requires significant expertise and time investment, raising concerns about resource allocation.

Enhancing the Effectiveness of the Marking Key

To address these challenges, assessment authorities can adopt several strategies:

- Regular Review and Updates: Ensuring the marking key aligns with current science and educational standards.
- Comprehensive Examiner Training: Providing detailed guidelines and calibration exercises.
- Use of Technology: Implementing computer-assisted marking for objective questions to improve consistency.
- Feedback Mechanisms: Gathering examiner and student feedback to refine marking criteria.
- Transparency: Publishing sample marking guides and exemplars to aid understanding and trust.

Conclusion: The Critical Role of the WACE Human Biology Exams Marking Key

The WACE human biology exams marking key is fundamental to upholding the integrity of

assessment practices in Western Australian secondary education. Its development reflects a rigorous process aimed at balancing accuracy, fairness, and transparency. As biological sciences evolve and educational standards shift, continuous refinement of the marking key is essential to ensure that assessment outcomes remain valid and equitable.

In an era increasingly emphasizing standardized testing and accountability, the marking key exemplifies a commitment to quality assurance in education. Its effective application ensures that student achievement accurately reflects their biological understanding, which, in turn, influences their academic and professional futures.

Key Takeaways:

- The marking key is a comprehensive, expert-developed guide crucial for fair assessment.
- Rigorous processes underpin its creation, validation, and implementation.
- Its effectiveness directly impacts student outcomes, fairness, and the credibility of the examination system.
- Ongoing review and technological integration can enhance its reliability and fairness.
- Transparency and examiner training are vital for maintaining standards.

Understanding and scrutinizing the WACE human biology exams marking key underscores the broader importance of assessment integrity in fostering educational excellence and equity.

Question What is the purpose of the WACE Human Biology exams marking key? The WACE Human Biology exams marking key provides examiners and students with the correct answers and marking guidelines to ensure consistent and fair assessment of student responses. **Answer** How can students use the WACE Human Biology exams marking key to prepare effectively? Students can use the marking key to understand the expected answers, improve their knowledge of key concepts, and practice answering questions to enhance their exam performance. Where can I find the official WACE Human Biology exams marking key? The official marking key is typically available on the Western Australian Curriculum and Assessment Outline (WACE) website or through your school's exam resources provided by the WA Department of Education. Are the WACE Human Biology exams marking keys updated regularly? Yes, the marking keys are reviewed and updated regularly to reflect any changes in the syllabus or assessment standards, ensuring accuracy and relevance for each exam session. How does the WACE Human Biology exams marking key assist teachers during assessment? It helps teachers accurately grade student responses, understand the examiners' expectations, and ensure consistency in marking across different students and schools.

Related keywords: WACE, human biology, exams, marking key, marking scheme, answer key, assessment guide, marking criteria, exam answers, marking guidelines

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