

Markscheme

November 2019

Interdisciplinary

On-screen examination

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Best fit Approach

'The approach used in assessment in the application of assessment criteria is a "best fit" model. The examiner or teacher applying an assessment criterion must choose the achievement level that overall best matches the piece of work being marked. It is not necessary for every detailed aspect of an achievement level to be satisfied for that level to be awarded but it must reflect the balance of student achievement against the markband. For example, if student work matches two of the three requirements within a markband but one is seriously lacking, the student should be awarded for the strands that have been met well, but the mark awarded should be at the lower end of the markband to compensate for what is lacking in one strand. If the level of student work spans multiple markbands, compensation depends on the performance in the higher order skills. It is worth noting that the highest level of any given criterion does not represent perfection.'

Note: Before marking, please familiarize yourself with the pre-release material, all sources, the questions and the markscheme.

***These are the command terms used throughout the markscheme.**

| Command term | Definition |
|----------------------|--|
| State* | Give a specific name, value or other brief answer without explanation or calculation. |
| Describe* | Give a detailed account or picture of a situation, event, pattern or process. |
| Evaluate* | Make an appraisal by weighing up the strengths and limitations. |
| Explain* | Give a detailed account including reasons or causes. |
| Analyse | Break down in order to bring out the essential elements or structure. To identify parts and relationships, and to interpret information to reach conclusions. |
| Compare and contrast | Give an account of the similarities and differences between two (or more) items or situations, referring to both (all) of them throughout. |
| Construct | Display information in a diagrammatic or logical form. |
| Create | To evolve from one's own thought or imagination, as a work or an invention. |
| Estimate | Obtain an approximate value for an unknown quantity. |
| Identify | Provide an answer from a number of possibilities. Recognize and state briefly a distinguishing fact or feature. |
| Justify | Give valid reasons or evidence to support an answer or conclusion. (See also "Explain".) |
| Suggest | Propose a solution, hypothesis or other possible answer. |
| To what extent | Consider the merits or otherwise of an argument or concept. Opinions and conclusions should be presented clearly and supported with appropriate evidence and sound argument. |

Question 1a

Explain three ways in which this experiment could be improved.

(6 marks)

Note: the marking rubric is to be used for each of the three response boxes.

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors described below. |
| 1 | The student identifies an improvement. |
| 2 | The student explains the benefit of the improvement identified. |

Question 1b

Explain one strength and one weakness of using lab grown foods to reduce world hunger.

(4 marks)

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors described below. |
| 1 | The student identifies at least one strength or weakness. |
| 2 | The student identifies one strength and one weakness or The student provides a strength or weakness and provides a reason. |
| 3 | The student identifies one strength and one weakness and The student provides a reason for the strength or weakness. |
| 4 | The student identifies one strength and one weakness and The student provides a reason for both the strength and weakness. |

Question 2a

“Alternative milks are better for the environment than dairy, but their growing appeal may cause problems.”

Outline how the key concept **global interactions** supports your understanding of the quotation above, using an example.

(2 marks)

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1 | The student outlines their choice. |
| 2 | The student outlines their choice with a valid example. |

Question 2b

Outline how alternative milk has led to a change in dairy milk consumption, using an example to support your answer.

(2 marks)

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1 | The student outlines the change in dairy milk consumption. |
| 2 | The student outlines the change in dairy milk consumption with a valid example. |

Question 2c

Discuss the effects of the dairy industry on society. In your answer, you must include:

- the positive effects on society
- the negative effects on society.

(6 marks)

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–2 | The effects on society are superficially discussed . The student: <ul style="list-style-type: none"> • states the positive effects • states the negative effects. |
| 3–4 | The effects on society are partially discussed . The student: <ul style="list-style-type: none"> • describes the positive effects • describes the negative effects. |
| 5–6 | The effects on society are fully discussed . The student: <ul style="list-style-type: none"> • explains the positive effects • explains the negative effects. |

Question 3

Justify your choice to the restaurant manager. In your answer, you must:

- give health reasons for the choice of your dish in comparison to the other dishes
- give ethical reasons for the choice of your dish in comparison to the other dishes
- use evidence from the pre-release material.

(8 marks)

| Marks | Descriptor |
|-------|---|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–2 | The student addresses the following points: <ul style="list-style-type: none"> • states health reasons for the choice of dish • states ethical reasons for the choice of dish. |
| 3–4 | The student addresses the following points: <ul style="list-style-type: none"> • outlines health reasons for the choice of dish • outlines ethical reasons for the choice of dish • uses evidence from pre-release material. |
| 5–6 | The student addresses the following points: <ul style="list-style-type: none"> • describes health reasons for the choice of dish in comparison to the other dishes • describes ethical reasons for the choice of dish in comparison to the other dishes • uses evidence from pre-release material. |
| 7–8 | The student addresses the following points: <ul style="list-style-type: none"> • explains health reasons for the choice of dish in comparison to the other dishes • explains ethical reasons for the choice of dish in comparison to the other dishes • uses evidence from pre-release material. |

Question 4

Compare and contrast how the two adverts synthesize science and individuals and societies. You must give:

- similarities of the synthesis of the two adverts
- differences of the synthesis of the two adverts.

(8 marks)

| Marks | Descriptor |
|-------|---|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–2 | <p>The student attempts to compare and contrast the adverts by addressing the following point:</p> <ul style="list-style-type: none"> • states the similarities or differences in synthesis of the two adverts. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 3–4 | <p>The student attempts to compare and contrast the adverts by addressing the following points:</p> <ul style="list-style-type: none"> • outlines the similarities and differences in synthesis of the two adverts • refers to both adverts for either similarities or differences. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 5–6 | <p>The student compares and contrasts the adverts by addressing the following points:</p> <ul style="list-style-type: none"> • describes the similarities and differences in synthesis of the two adverts • refers to both adverts for similarities and differences. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 7–8 | <p>The student fully compares and contrasts the adverts by addressing the following points:</p> <ul style="list-style-type: none"> • explains the similarities and differences in synthesis of the two adverts • refers in detail to both adverts for all similarities and differences. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |

Question 5a

Create a proposal for the produce option you have selected. In your answer, you must:

- ensure the nutritional requirements of the nation are met
- justify the produce option selected
- justify why you will not renew one of the treaties
- use evidence from the pre-release material.

(12 marks)

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–3 | <p>The proposal consists of statements that support a stance. The student:</p> <ul style="list-style-type: none"> • states their choice of products • states which treaty is not renewed • attempts to use evidence from the pre-release materials. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 4–6 | <p>The proposal consists of an outline that supports a stance and is supported by examples from the pre-release materials. The student:</p> <ul style="list-style-type: none"> • outlines their choice of products • outlines the reasons for not renewing one of the treaties • uses some evidence from the pre-release materials. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 7–9 | <p>The proposal consists of a description that supports a stance and is supported by examples from the pre-release materials. The student:</p> <ul style="list-style-type: none"> • describes their choice of products • describes the reasons for not renewing one of the treaties • uses evidence from the pre-release materials. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 10–12 | <p>The proposal consists of explanations that support a stance and is supported by detailed examples from the pre-release materials. The student:</p> <ul style="list-style-type: none"> • explains their choice of products • explains the reasons for not renewing one of the treaties • uses detailed evidence from the pre-release materials. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |

Question 5b

Evaluate how your knowledge of sciences and individuals and societies informed your proposal. You must:

- show how your knowledge of the sciences and individuals and societies benefited your proposal
- show how your knowledge of the sciences and individuals and societies limited your proposal
- refer to your proposal.

(12 marks)

Note: Only concepts relating to their proposal can be considered for above (3 marks).

| Marks | Descriptor |
|-------|--|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–3 | <p>The student makes general statements about the use of the concepts by addressing one to two of the following points:</p> <ul style="list-style-type: none"> • the benefits of knowledge of sciences • the benefits of knowledge of individuals and societies • the limitations of knowledge of sciences • the limitations of knowledge of individuals and societies. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 4–6 | <p>The student outlines the use of the concepts by addressing two to three of the following points:</p> <ul style="list-style-type: none"> • the benefits of knowledge of sciences • the benefits of knowledge of individuals and societies • the limitations of knowledge of sciences • the limitations of knowledge of individuals and societies. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 7–9 | <p>The student partially evaluates the use of the concepts by addressing three to four of the following points by describing:</p> <ul style="list-style-type: none"> • the benefits of knowledge of sciences • the benefits of knowledge of individuals and societies • the limitations of knowledge of sciences • the limitations of knowledge of individuals and societies. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |
| 10–12 | <p>The student fully evaluates the use of the concepts by addressing all of the following points by explaining:</p> <ul style="list-style-type: none"> • the benefits of knowledge of sciences • the benefits of knowledge of individuals and societies • the limitations of knowledge of sciences • the limitations of knowledge of individuals and societies. <p>Within this markband, answers that communicate the ideas clearly and coherently will score higher.</p> |

Question 6

To what extent should scientists involved in developing scientific technologies for society that also have destructive potential be celebrated? You must include:

- reasons why they should be celebrated
- reasons why they should not be celebrated
- evidence from the pre-release material
- an evaluative conclusion.

(12 marks)

| Marks | Descriptor |
|-------|---|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–3 | The student addresses at least one of the following points: <ul style="list-style-type: none"> • states reasons why they should be celebrated • states reasons why they should not be celebrated • provides evidence from the pre-release material • a conclusion. |
| 4–6 | The student addresses at least two of the following points: <ul style="list-style-type: none"> • outlines reasons why they should be celebrated • outlines reasons why they should not be celebrated • provides evidence from the pre-release material • a conclusion. |
| 7–9 | The student addresses at least three of the following points: <ul style="list-style-type: none"> • describes reasons why they should be celebrated • describes reasons why they should not be celebrated • provides evidence from the pre-release material • an evaluative conclusion. |
| 9–12 | The student addresses all of the following points: <ul style="list-style-type: none"> • explains reasons why they should be celebrated • explains reasons why they should not be celebrated • provides evidence from the pre-release material • an evaluative conclusion. |

Question 7

Evaluate your current eating habits. You must include:

- strengths of your current eating habits
- weaknesses of your current eating habits
- evidence from the examination
- an evaluative conclusion.

(8 marks)

| Marks | Descriptor |
|-------|---|
| 0 | The student does not achieve a standard described by any of the descriptors given below. |
| 1–2 | The student addresses at least one of the following points: <ul style="list-style-type: none"> • states the strengths of their current eating habits • states the weaknesses of their current eating habits • provides evidence from the examination • a conclusion. |
| 3–4 | The student addresses at least two of the following points: <ul style="list-style-type: none"> • outlines the strengths of their current eating habits • outlines the weaknesses of their current eating habits • provides evidence from the examination • a conclusion. |
| 5–6 | The student addresses at least three of the following points: <ul style="list-style-type: none"> • describes the strengths of their current eating habits • describes the weaknesses of their current eating habits • provides evidence from the examination • an evaluative conclusion. |
| 7–8 | The student addresses all of the following points: <ul style="list-style-type: none"> • explains the strengths of their current eating habits • explains the weaknesses of their current eating habits • provides evidence from the examination • an evaluative conclusion. |