



Cambridge International A Level

FOOD STUDIES

9336/02

Paper 2 Practical Test

October/November 2023

MARK SCHEME

Maximum Mark: 100

Published

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge International will not enter into discussions about these mark schemes.

Cambridge International is publishing the mark schemes for the October/November 2023 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

PUBLISHED**Generic Marking Principles**

These general marking principles must be applied by all examiners when marking candidate answers. They should be applied alongside the specific content of the mark scheme or generic level descriptors for a question. Each question paper and mark scheme will also comply with these marking principles.

GENERIC MARKING PRINCIPLE 1:

Marks must be awarded in line with:

- the specific content of the mark scheme or the generic level descriptors for the question
- the specific skills defined in the mark scheme or in the generic level descriptors for the question
- the standard of response required by a candidate as exemplified by the standardisation scripts.

GENERIC MARKING PRINCIPLE 2:

Marks awarded are always **whole marks** (not half marks, or other fractions).

GENERIC MARKING PRINCIPLE 3:

Marks must be awarded **positively**:

- marks are awarded for correct/valid answers, as defined in the mark scheme. However, credit is given for valid answers which go beyond the scope of the syllabus and mark scheme, referring to your Team Leader as appropriate
- marks are awarded when candidates clearly demonstrate what they know and can do
- marks are not deducted for errors
- marks are not deducted for omissions
- answers should only be judged on the quality of spelling, punctuation and grammar when these features are specifically assessed by the question as indicated by the mark scheme. The meaning, however, should be unambiguous.

GENERIC MARKING PRINCIPLE 4:

Rules must be applied consistently, e.g. in situations where candidates have not followed instructions or in the application of generic level descriptors.

GENERIC MARKING PRINCIPLE 5:

Marks should be awarded using the full range of marks defined in the mark scheme for the question (however; the use of the full mark range may be limited according to the quality of the candidate responses seen).

GENERIC MARKING PRINCIPLE 6:

Marks awarded are based solely on the requirements as defined in the mark scheme. Marks should not be awarded with grade thresholds or grade descriptors in mind.

Science-Specific Marking Principles

1 Examiners should consider the context and scientific use of any keywords when awarding marks. Although keywords may be present, marks should not be awarded if the keywords are used incorrectly.

2 The examiner should not choose between contradictory statements given in the same question part, and credit should not be awarded for any correct statement that is contradicted within the same question part. Wrong science that is irrelevant to the question should be ignored.

3 Although spellings do not have to be correct, spellings of syllabus terms must allow for clear and unambiguous separation from other syllabus terms with which they may be confused (e.g. ethane / ethene, glucagon / glycogen, refraction / reflection).

4 The error carried forward (ecf) principle should be applied, where appropriate. If an incorrect answer is subsequently used in a scientifically correct way, the candidate should be awarded these subsequent marking points. Further guidance will be included in the mark scheme where necessary and any exceptions to this general principle will be noted.

5 'List rule' guidance

For questions that require ***n*** responses (e.g. State **two** reasons ...):

- The response should be read as continuous prose, even when numbered answer spaces are provided.
- Any response marked *ignore* in the mark scheme should not count towards ***n***.
- Incorrect responses should not be awarded credit but will still count towards ***n***.
- Read the entire response to check for any responses that contradict those that would otherwise be credited. Credit should **not** be awarded for any responses that are contradicted within the rest of the response. Where two responses contradict one another, this should be treated as a single incorrect response.
- Non-contradictory responses after the first ***n*** responses may be ignored even if they include incorrect science.

6 Calculation specific guidance

Correct answers to calculations should be given full credit even if there is no working or incorrect working, **unless** the question states 'show your working'.

For questions in which the number of significant figures required is not stated, credit should be awarded for correct answers when rounded by the examiner to the number of significant figures given in the mark scheme. This may not apply to measured values.

For answers given in standard form (e.g. $a \times 10^n$) in which the convention of restricting the value of the coefficient (a) to a value between 1 and 10 is not followed, credit may still be awarded if the answer can be converted to the answer given in the mark scheme.

Unless a separate mark is given for a unit, a missing or incorrect unit will normally mean that the final calculation mark is not awarded. Exceptions to this general principle will be noted in the mark scheme.

7 Guidance for chemical equations

Multiples / fractions of coefficients used in chemical equations are acceptable unless stated otherwise in the mark scheme.

State symbols given in an equation should be ignored unless asked for in the question or stated otherwise in the mark scheme.

Examples of how to apply the list rule:State **three** reasons.... [3]

A	1	Correct	✓	2
	2	Correct	✓	
	3	Wrong	✗	

B	1	Correct, Correct	✓, ✓	3
(4 responses)	2	Correct	✓	
	3	Wrong	ignore	

C	1	Correct	✓	2
(4 responses)	2	Correct, Wrong	✓, ✗	
	3	Correct	ignore	

D	1	Correct	✓	2
(4 responses)	2	Correct, CON (of 2.)	✗, (discount 2)	
	3	Correct	✓	

E	1	Correct	✓	3
(4 responses)	2	Correct	✓	
	3	Correct, Wrong	✓	

F	1	Correct	✓	2
(4 responses)	2	Correct	✓	
	3	Correct CON (of 3.)	✗ (discount 3)	

G	1	Correct	✓	3
(5 responses)	2	Correct	✓	
	3	Correct Correct CON (of 4.)	✓ ignore ignore	

H	1	Correct	✓	2
(4 responses)	2	Correct	✗	
	3	CON (of 2.) Correct	(discount 2) ✓	

I	1	Correct	✓	2
(4 responses)	2	Correct	✗	
	3	Correct CON (of 2.)	✓ (discount 2)	

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Question	Answer	Marks
Section A		
1(a)(i)	Dishes chosen – four dishes – suitability	4
1(ii)	Variety of skills chosen without repetition	4
1(b)(i)	Choice of dish to show the coagulation of protein	1
1(ii)	Degree of skill for dish chosen in (b)	1
	Time Plan	
	Sequence	5
	Methods	5
	Cooking temperature and cooking times	5
	Shopping list	1
1(c)(i)	<i>Explain with examples what is meant by Maillard browning and enzymic browning.</i> maillard browning occurs when a food containing protein and sugar is exposed to heat; e.g. biscuits; reaction occurs between the amino group in the protein; and the aldehyde group of a reducing sugar; gives a pleasant aroma to the food; enzymic browning occurs in apples / avocado / bananas; damaged or cut cells release phenols and are exposed to oxygen in the air; the oxygen causes a reaction; the phenolase enzyme changes the phenols into melanin; browns;	6
1(c)(ii)	<i>Describe the processes of caramelisation and dextrinization. Give examples to illustrate your answers.</i> caramelisation; heated sugars melt and break down; into glucose and fructose; occurs between 104 °C and 177 °C; forms caramel / brown; e.g. frying onions, crème caramel; dextrinization; dry heat on starch; starch is broken down into dextrins; become brown; would turn to carbon with prolonged heating; e.g. toast, cakes;	4

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Question	Answer	Marks
1(iii)	<i>Practical reasons for choice</i> include skills used – use of seasonal foods – ease of obtaining foods – e.g. grown in garden / in season – oven management – cost – serving	4
1(iv)	<i>Nutritional value of dish chosen in (b)</i> must give four nutrients and appropriate functions	4
Section B		
	Manipulative skill and method of working (marked at the Centre)	26
Section C		
	Results and serving (marked at the Centre)	30

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Question	Answer	Marks
Section A		
2(a)(i)	Dishes chosen – four dishes – suitability	4
2(a)(ii)	Variety of skills chosen without repetition	4
2(b)(i)	Choice of dish to show the coagulation of protein	1
2(b)(ii)	Degree of skill for dish chosen in (b)	1
	Time Plan	
	Sequence	5
	Methods	5
	Cooking temperature and cooking times	5
	Shopping list	1
2(c)(i)	<i>Discuss six factors which can affect energy needs.</i> age – young children need energy for growth / adolescents – rapid growth / elderly – not as much movement; gender – men larger body size; physical activity – athletes need more energy than someone watching the TV; occupation – sedentary workers need less energy than manual labourers; state of body – pregnant and lactating women need extra energy for growth of the baby and production of milk; climate – need more energy in a colder climate to maintain body temperature; thermogenic effect of food – intake of food stimulates metabolism / metabolic rate increases after a meal / meal produces extra energy in the form of heat;	6
2(c)(ii)	<i>Explain four ways in which the body uses energy.</i> mechanical / kinetic energy – for movement of the muscles; chemical energy – for metabolic reactions; heat energy – to maintain body temperature; electrical energy – to transmit nerve impulses;	4

Question	Answer	Marks
2(c)(iii)	<i>Practical reasons for choice</i> include skills used – use of seasonal foods – ease of obtaining foods – e.g. grown in garden / in season – oven management – cost – serving	4
2(c)(iv)	<i>Nutritional value of dish chosen in (b)</i> must give four nutrients and appropriate functions	4
Section B		
	Manipulative skill and method of working (marked at the Centre)	26
Section C		
	Results and serving (marked at the Centre)	30

Question	Answer	Marks
Section A		
3(a)(i)	Dishes chosen – four dishes – suitability	4
3(a)(ii)	Variety of skills chosen without repetition	4
3(b)(i)	Choice of dish to show the coagulation of protein	1
3(b)(ii)	Degree of skill for dish chosen in (b)	1
	Time Plan	
	Sequence	5
	Methods	5
	Cooking temperature and cooking times	5
	Shopping list	1
3(c)(i)	<i>Discuss six ways in which the amount of fat can be reduced when planning and preparing meals.</i> use white meat / fish instead of red meat; choose lean meat / trim visible fat off meat; grill / stir fry / dry fry / bake / steam food rather than deep fry; use reduced / low fat cheese; change to skimmed / semi skimmed milk; reduce fat in recipes; less baked foods with hidden fat such as cakes / pastries / biscuits; check labels for fat content;	6

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Question	Answer	Marks
3(c)(ii)	<i>With reference to fats and oils explain what is meant by melting point and smoke point.</i> melting point – the temperature at which a fat turns into a liquid; fats containing saturated fats melt at lower temperatures; e.g. animal fats / hard fats / butter / lard; smoke points – 180 °C – 250 °C; the temperature at which a blue haze is seen; fat molecules are breaking up / start to decompose / eventually ignite; fats and oils containing fewer free fatty acids have a higher smoke point; good for frying e.g. sunflower oil / canola; more FFAs the quicker the oil / fat will break down and start smoking; margarine / butter contain water and have a low smoke point;	4
3(c)(iii)	<i>Practical reasons for choice</i> include skills used – use of seasonal foods – ease of obtaining foods – e.g. grown in garden / in season – oven management – cost – serving	4
3(c)(iv)	<i>Nutritional value of dish chosen in (b)</i> must give four nutrients and appropriate functions	4
Section B		
	Manipulative skill and method of working (marked at the Centre)	26
Section C		
	Results and serving (marked at the Centre)	30