CAMBRIDGE
International Education

Cambridge IGCSE™

PHYSICAL EDUCATION **0413/11**

Paper 1 Theory **October/November 2025**

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 2025 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **19** printed pages.

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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 descriptions 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.

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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	<u>'List rule' guidance</u> 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.

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6	<u>Calculation specific guidance</u> 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	<u>Guidance for chemical equations</u> 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.

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Annotations guidance for centres

Examiners use a system of annotations as a shorthand for communicating their marking decisions to one another. Examiners are trained during the standardisation process on how and when to use annotations. The purpose of annotations is to inform the standardisation and monitoring processes and guide the supervising examiners when they are checking the work of examiners within their team. The meaning of annotations and how they are used is specific to each component and is understood by all examiners who mark the component.

We publish annotations in our mark schemes to help centres understand the annotations they may see on copies of scripts. Note that there may not be a direct correlation between the number of annotations on a script and the mark awarded. Similarly, the use of an annotation may not be an indication of the quality of the response.

The annotations listed below were available to examiners marking this component in this series.

Annotations

Annotation	Meaning
✓	correct point or mark awarded
✗	incorrect point or mark not awarded
BOD	benefit of the doubt given
ECF	error carried forward applied
SEEN	point has been noted, but no credit has been given or blank page seen
TV	response is too vague or there is insufficient detail in response
●	incomplete answer
∿∿∿	linked consideration of points
⌇	linked consideration of points

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Annotation	Meaning
REP	repetition in response
^	information missing or insufficient for credit
CON	contradiction in response, mark not awarded

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Question	Answer	Marks
1(a)	1 mark for each identification of the bone and 1 mark for each classification. (A) pelvis; classification: flat; (B) femur; classification: long;	**4**
1(b)	1 mark for type of synovial joint and 1 mark for each identification of type of movement (max. 3 marks). (type) ball and socket; abduction; adduction; extension; flexion; rotation; Accept other relevant types of movement.	**4**
1(c)	1 mark for: gluteal(s);	**1**

Question	Answer	Marks
2(a)	1 mark max. for named bone and 1 mark max for appropriate description of sporting example, for example: named bone: the cranium; example: provides barrier / shield for the brain when being hit or tackled; named bone: the ribs / ribcage; example: provides barrier / shield for the heart / lungs during impact or collision; Accept other suitable examples.	**2**

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Question	Answer	Marks
2(b)	1 mark for each function (max. 2 marks) and 1 mark for each use (max. 2 marks). Must identify function for example mark. function: allows muscle attachment for movement; example: when tackling / kicking / passing / running / dodging; function: (red) blood (cell) production; example: (red) to give oxygen to working muscles to last the game / match / competition; function: provides shape / support; example: to perform tackle / scrum / lineout with correct technique / to maintain stance / resisting a tackle; Accept examples of other functions of the skeleton. Examples must be applied to rugby union.	**4**
2(c)(i)	1 mark for feature of appropriate footwear and 1 mark for explanation, for example: (appropriate footwear) has studs / equivalent; (explanation) give grip to the player / less chance of slipping / falling over; **OR** (appropriate footwear) may be high ankle boots; (explanation) protect or supports the ankle / less chance of rolling over the ankle / helps prevent going over on ankle; **OR** (appropriate footwear) is made of strong material; (explanation) provides cushioning / support / protection for the foot / reduces impact from being stepped on; Accept other appropriate explanations.	**2**
2(c)(ii)	1 mark for each type of protective equipment, for example: headguard / scrumcap; gumshield / gumguard; shin pads; shoulder pads; post guards or pads;	**2**

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Question	Answer	Marks
3(a)	1 mark for suitable description. requires high levels of coordination / concentration / accuracy / precision / decision making / information to process / consists of multiple sub-routines;	**1**
3(b)(i)	1 mark for each justification. open: can be affected by the environment / position of opponents / the movement can be different every time / may need to adapt the skill; gross: involves large muscle groups / large movements; Accept other relevant justifications.	**2**
3(b)(ii)	1 mark for each description. 1 mark for each description of an example. Must describe type of respiration for example mark. aerobic respiration: respiration in the presence of oxygen / glucose and oxygen (broken down to carbon dioxide and water); example: swimming or treading water for long periods of time / the duration of the game; anaerobic respiration: respiration without oxygen (produces lactic acid); example: performing fast passes / powerful shots during the game / swimming a few metres quickly to gain the ball;	**4**

Question	Answer	Marks
4	1 mark for each type of motivation. extrinsic; intrinsic; extrinsic;	**3**

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Question	Answer	Marks
5(a)	1 mark for suitable description. the ability of the heart / lungs to supply oxygen to the working muscles to meet the demands of the exercise; Accept equivalent wording.	**1**
5(b)	1 mark for suitable description of importance in a relevant named physical activity for example: in football: a midfield player can carry on performing for the 90 minutes; in cross-country running: can keep running for a long distance / long period of time; in basketball: a basketball player will not need to be substituted due to fatigue; Accept other suitable descriptions.	**1**
5(c)	1 mark for each named phase of warm up (2 marks max.) and 1 mark for each suggestion (2 marks max.). Must name phase of warm up for suggestion of example mark. For example: pulse raiser; (gentle) jogging; stretching; hamstring / quadricep muscles (stretching) or dynamic / static (stretching);	**4**
5(d)	1 mark for each other part. subject runs / walks as far as possible; a measured course is used, e.g. with cones placed at regular intervals to help identify the exact distance covered / measured laps; calculate the distance covered; the distance covered is compared to standardised normative data;	**2**

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Question	Answer	Marks
6(a)	1 mark for each type of guidance (2 marks max.) and 1 mark for description of how the coach may be using it (2 marks max.). Must name type of guidance for description mark. for example: guidance: verbal; how may be using: explaining instructions / coaching points **OR** using words on how to do the splits / move / technique / skill; guidance: manual; how may be using: use of hands **OR** hands-on guidance **OR** physically moving the body part to move performer into correct position / leap / skill; guidance: visual; how may be using: use of posters on the walls **OR** showing demonstrations **OR** recordings showing correct posture during a roll / skill; guidance: mechanical; how may be using: use of an aid / apparatus / equipment to support during a balance **OR** use of bar to support leg balance / skill.	**4**
6(b)(i)	1 mark for appropriate example of knowledge of results, for example: judge's scores or marks / getting first place in a competition;	**1**
6(b)(ii)	1 mark for description of how knowledge of results used by the dancer, for example: (overall position in competition / fitness test results could be used to) set goals / provide motivation / design a training programme;	**1**
6(b)(iii)	1 mark for: intrinsic;	**1**

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Question	Answer	Marks
6(c)	1 mark for each named characteristic (3 marks max.) and 1 mark for each description of example (3 marks max). Must name characteristic for description mark. characteristic: fluent; description: the dancer is able to flow moves together / the different skills used in the routine are flowing / one move or skill moves easily into the next; characteristic: aesthetically pleasing; description: the dancer's movement around the floor looks good / the routine is nice to watch / jumps or leaps or rolls show graceful movements; characteristic: consistent; description: the dancer executes the skill / routine / jump the same way each time in the intended way; characteristic: accurate; description: the dancer is able to perform the routine correctly / there are no extra moves added; characteristic: goal-directed; description: being determined to produce a good routine / score good marks in the competition / setting a target to limit the number of errors in the routine;	**6**
6(d)	1 mark for each suggestion of how used by a dancer. (coordination) (the dancer is able to move more than one body part at the same time) when completing a jump / roll / leap / spin / gesture; (power) the dancer is able to perform jumps / leaps / lifts (with a lot of height or distance); (flexibility) (the dancer is able to stretch / reach further during) the splits / leg / plié / leg lifts;	**3**

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Question	Answer	Marks
6(e)	1 mark for each suggestion. access; discrimination; education; environment / climate; family; financial considerations; media coverage; role models; time / work commitments; also accept: age; gender; disability; social / cultural influences; Accept other relevant factors.	**3**

Question	Answer	Marks
7(a)	1 mark for: sports development (pyramid);	**1**
7(b)	1 mark for each identification of level. (A) performance; (B) participation;	**2**

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Question	Answer	Marks
8(a)	1 mark for correct sketching of the inverted-U; 1 mark for correct labelling of the missing axis label as performance; 1 mark for correct labelling of the optimal level of arousal on sketch;	**3**
8(b)	1 mark for each named relaxation technique. mental rehearsal; visualisation; deep breathing; Accept names of other appropriate relaxation techniques.	**3**
8(c)(i)	1 mark for identification of each type of anxiety (2 marks max.) and 1 mark for each description of example (2 marks max). Must name type of anxiety for example mark. cognitive; (example) fear / worry / doubt / difficulties concentrating / anticipating the worst outcomes / mind often going blank / irrational fears and dread / uncontrollable or obsessive thoughts; somatic; (example) butterflies (in stomach) / dry mouth / increased breathing or heart rate / sweaty palms / nausea or sickness / shaking; Accept other relevant examples.	**4**
8(c)(ii)	1 mark for each description of each type of risk. 1 mark for each description of a different example from snowboarding. real risk: is the objective amount of danger / the danger that actually exists in an activity / level of actual risk; example: falls or crashes / getting lost on slopes / avalanches / sunburn / hypothermia / breaking a bone; perceived risk: an individual's subjective / personal judgment / fear of the dangers of an activity; example: fear of falling over / worry about hitting a tree / fear of falling off a ski lift; Accept other relevant examples from snowboarding.	**4**

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Question	Answer	Marks
8(d)	1 mark for each strategy. wearing protective clothing; wearing appropriate clothing; lifting / moving / carrying equipment safely; maintaining hydration throughout the day; use of warm up / cool down; following rules / officials present; suitable level of competition or experience / standard of ability or using appropriate slopes; preparation / training / being fit enough for the activity / health checks / using correct technique; ensure sufficient recovery time / avoid overtraining; ensure a safe environment; ensure access to medical support / first aid; ensure adequate supervision; checking equipment; Accept other relevant strategies.	**4**

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Question	Answer	Marks
9	1 mark for each advantage, for example: home advantage / better chance of success / win more medals; increase in national pride / feel-good factor for country; raise profile of country; improved tourism; increased revenue / boost in economy; legacy benefits / implications; increased interest or participation in sport; better infrastructure / improved transport (road / rail) systems; redevelopment of some areas / new housing and social facilities provided; Accept other relevant advantages.	**3**

Question	Answer	Marks
10(a)	1 mark for description of how technology may be used: goal-line technology / VAR / cameras / replay **to** see if ball has crossed the line or to send off a player or to see if a penalty or offside can be awarded or to slow down footage / watch from different angles; Accept descriptions of examples of other relevant types of technology and decision making.	**1**
10(b)	1 mark for each group. audience / spectators; performers; Accept other relevant groups.	**2**

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<table>
<tr><th>Question</th><th>Answer</th><th>Marks</th></tr>
<tr><td>10(c)</td><td>1 mark for each description of difference.
<table>
<tr><th>play</th><th>sport</th></tr>
<tr><td>less competitive / not serious / less commitment</td><td>more competitive / more serious / more commitment;</td></tr>
<tr><td>low level of exertion / performed at a low standard / less training required</td><td>high level of exertion / performed at a high standard / more training required;</td></tr>
<tr><td>may have no rules / may have basic rules / rules can be made up by those that are playing</td><td>established set of rules / codes / regulations / more rules;</td></tr>
<tr><td>activities can be spontaneous / low level of organisation</td><td>high level of organisation / predetermined boundaries / numbers / time constraints / equipment;</td></tr>
<tr><td>done for health / fun / enjoyment / social reasons</td><td>can be a career / earn money;</td></tr>
<tr><td>may have no tactics / strategies</td><td>has specific tactics / strategies;</td></tr>
<tr><td>no officials / self-officiated</td><td>may have officials;</td></tr>
</table>
Accept other relevant differences.</td><td>3</td></tr>
</table>

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Question	Answer	Marks
11(a)	1 mark for: exciting;	**1**
11(b)	1 mark each for: Agreed; Time-phased; Recorded;	**3**
11(c)	1 mark for each suggestion. Each response must be different. (specific) the coach needs to ensure the goal is relevant / appropriate to the needs of the performer's sport / targets relevant muscles; (measurable) the coach will be able to compare previous data / results to show progress / the coach can time / determine distances / count successful attempts; (realistic) the coach needs to make the goal achievable / possible to reach / not too difficult;	**3**

Question	Answer	Marks
12(a)(i)	1 mark for: infirmity;	**1**
12(a)(ii)	1 mark for: World **AND** Health **AND** Organization;	**1**
12(b)(i)	1 mark for: Performance **AND** Enhancing **AND** Drug	**1**

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Question	Answer	Marks
12(b)(ii)	1 mark for identification of a type of PED and 1 mark for a relevant effect. Must identify type of PED for effect mark. For example: type of PED: anabolic steroids; expected effect: increase muscle mass; type of PED: beta blockers; expected effect: reduce anxiety; type of PED: stimulants; expected effect: increase alertness; type of PED: diuretics; expected effect: weight loss; Accept other relevant types of PED and other relevant effects.	**2**
12(b)(iii)	2 from: high / low blood pressure; fatigue; reduce immune system; heart disease / failure; liver problems; effect on hormones; dehydration; muscle weakness; kidney problems; nausea; stroke; increase risk of injury (as pain is suppressed); death; cancer; Accept other relevant health implications.	**2**

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