

Cambridge International AS Level

SPORT & PHYSICAL EDUCATION**8386/13**

Paper 1 Theory

October/November 2024

MARK SCHEME

Maximum Mark: 70

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 2024 series for most Cambridge IGCSE, Cambridge International A and AS Level components, and some Cambridge O Level components.

This document consists of **10** printed pages.

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 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.

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.

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Question	Answer	Marks
1(a)	4 marks for any 4 of: 1 has complex rules; 2 is competitive; 3 is highly structured; 4 has predetermined boundaries; 5 has predetermined numbers of participants; 6 has time constraints; 7 has specific equipment / kit; 8 has officials; 9 has tactics / strategies;	4
1(b)(i)	2 marks for any 2 of: 1 betting; 2 match-fixing; 3 insider information; 4 tanking / deliberately losing a match;	2
1(b)(ii)	5 marks for any 5 of: 1 players / officials / support staff are not allowed to bet on their own sport; 2 use of strict punishments / bans / fines; 3 use of positive role models; 4 ensure rules / regulations are clear for all involved in sport; 5 promote awareness of the dangers of being associated with people who may try to encourage competition manipulation; 6 educate all those involved in sport of the negative consequences OR educate people about the positive values of sport; 7 encourage reporting of any such approaches / whistle blowing; 8 monitor competitions closely for any unusual results; 9 encourage gambling sites to report any suspicious activity; Accept other appropriate strategies.	5

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Question	Answer	Marks
1(c)	1 (attention) learner must focus on important cues of, e.g. the batting demonstration OR learner must watch, e.g. the demonstrator's arm action while bowling; 2 (retention) the learner must be able to remember the model of, e.g. the position of the hands when catching a ball OR learner must create a mental image of, e.g. the cricket shot; 3 (motor reproduction) the performer must be physically able to copy / perform, e.g. the batting shot; 4 (motivation) the learner must have the drive to want to copy / learn, e.g. the fielding skill OR the learner is praised / rewarded (by the coach) for copying / performing, e.g. the fielding skill;	4
1(d)	1 the batter applies an action force to the ball with the bat; 2 the ball applies a reaction / force to the bat; 3 the reaction / force is equal in size to the action force AND in the opposite direction to the action / force; Accept reverse arguments, e.g. the ball applies an action force to the bat and the bat applies a reaction / force to the ball.	3

Question	Answer	Marks
2	5 marks for any 5 of: 1 both joints are synovial / freely movable joints; 2 both joints have common features / humerus / cartilage / ligaments / synovial fluid / synovial membrane; 3 shoulder joint has 2 (articulating) bones AND elbow has 3 (articulating) bones; 4 shoulder joint is a ball and socket joint AND the elbow joint is a hinge joint; 5 shoulder joint allows movements in 3 planes AND the elbow joint allows movement in 1 plane OR shoulder joint has a larger range of motion / range of movement; 6 both joints allow flexion AND extension; 7 only the shoulder joint allows additional types of movement AND , e.g. (one of) adduction / abduction / horizontal flexion / horizontal extension; 8 elbow joint is more stable than the shoulder joint; Accept other appropriate comparisons.	5

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Question	Answer	Marks
3(a)(i)	1000;	1
3(a)(ii)	5;	1
3(a)(iii)	1200;	1
3(a)(iv)	5;	1
3(b)	1 control the flow of blood into the capillary beds; 2 dilate / relax to increase blood flow to muscles / skin / heart; 3 constrict / contract to reduce blood flow to liver / gut / kidneys / non-essential organs;	3
3(c)	1 a value between 15 and 20; 2 a value between 2.0 and 2.5; 3 a value between 30 and 50;	3
3(d)(i)	1 (from A to B) constant speed; 2 (from B to C) increasing speed / acceleration; 3 (from C to D) decreasing speed / negative acceleration; Accept alternative wording.	3
3(d)(ii)	100;	1

Question	Answer	Marks
3(e)	7 marks for any 7 of: 1 goes against the values of sport; 2 creates a negative image of the sport; 3 reduce participation / fewer players; 4 creates negative role models; 5 violence copied at grass-roots level OR copied by young players; 6 withdrawal of sponsorship / advertising / business investment; 7 reduced income for the sport; 8 negative media coverage; 9 reduced likelihood of the country hosting international football championships; 10 spectators banned OR forced to play behind closed doors; 11 increased costs for the sport; 12 (e.g. cost of) more stewards / CCTV / greater police presence / segregated areas; 13 violence becomes the norm / becomes acceptable in the sport; 14 lower attendance OR fewer spectators; 15 government involvement / interference in running of the sport; 16 new laws implemented that impact on the running of the sport; 17 loss of officials / reduced numbers available to referee; Accept other suitable consequences of violence at football matches for the sport.	7

Question	Answer	Marks
4(a)	1 flexion; 2 extension;	2
4(b)	biceps brachii;	1
4(c)	1 (antagonist) triceps brachii; 2 (fixator) anterior deltoid / medial deltoid / posterior deltoid / pectoralis major / latissimus dorsi / wrist flexors; 3 (role of antagonists) relax to allow the agonist to work OR relax to allow movement; 4 (role of fixators) stabilise the joints OR limit unwanted movements OR help to control movement;	4

Question	Answer	Marks
4(d)	1 A to B is concentric; 2 ... because the muscle shortens while contracting; 3 B to A is eccentric; 4 ... because the muscle lengthens while contracting OR muscle resists gravity; 5 static / held position / at A / at B is isometric; 6 ... because the muscle is contracting without changing length;	6

Question	Answer	Marks
5	7 marks for any 7 of: 1 information / stimuli enter the short-term sensory store; 2 information is stored for up to a second; 3 information is filtered OR selective attention takes place; 4 (relevant) information enters the short-term memory; 5 a limited amount of information is stored OR 5–9 items OR for about 30 seconds; 6 rehearsed / practised information is passed into the long-term memory; 7 long-term memory has a limitless capacity OR holds information for a long time; 8 information is stored if important / meaningful / unique; 9 information is stored as motor programmes;	7

Question	Answer	Marks
6	1 (innate) characteristics that are inherited / genetic / you are born with; 2 (enduring) characteristics that are long-lasting / permanent;	2

Question	Answer	Marks
7	4 marks for any 4 of: 1 growth in media interest; 2 growth in public interest OR increase in participation; 3 growth in spectatorism; 4 growth of professionalism OR adoption of a professional approach to sport; 5 advertising / promotion of events / performers OR advertising through media; 6 sponsorship of sport / performers / competitions; Accept descriptions of other suitable factors.	4