
PHYSICAL EDUCATION

9396/33

Paper 3

October/November 2018

MARK SCHEME

Maximum Mark: 90

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 2018 series for most Cambridge IGCSE™, Cambridge International A and AS Level components and some Cambridge O Level components.

This document consists of **9** printed pages.

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.

Question	Answer	Marks
1(a)	4 marks for any 4 of: 1 tennis has periods of high intensity AND low intensity work; 2 (aerobic), e.g. long duration of match OR match requires high level of stamina; 3 (aerobic), e.g. rest periods between points / games / changeover of ends; 4 (anaerobic), e.g. nature of some strokes, e.g. serve / smash / drive / volley; 5 (anaerobic), e.g. sprinting across court to reach ball OR strength endurance for long rally;	4
1(b)(i)	2 marks for any 2 of: 1 insufficient oxygen was available (during exercise / for aerobic respiration); 2 cardiovascular system needs time to get enough oxygen to muscles; 3 anaerobic systems were being used;	2
1(b)(ii)	5 marks for 5 of: (sub-max. 3 marks for each component / stage) (alactacid) 1 alactacid stage / debt component; 2 re-synthesis of ATP/PC OR restoration of muscle phosphagen; 3 replenishment of myoglobin stores with oxygen OR restoration of oxy-myoglobin link; 4 takes 2–3 minutes OR uses up to 4 litres of oxygen; (lactacid) 5 lactacid stage / debt component; 6 removal of lactic acid; 7 takes about 1 hour OR uses 5–8 litres of oxygen; 8 replenishment of glycogen stores;	5
1(c)	3 marks for any 3 of: 1 (frequency) increase frequency of training OR increase number of sessions per week; 2 (intensity) increase intensity of training OR work at higher percentage of max. HR / at higher percentage of max 1 RM / run faster / more reps / heavier weights; 3 (time) increase duration of training OR longer training session; 4 (rest) reduce rest periods during training;	3
1(d)(i)	2 marks for: 1 (definition) strength exerted against a resistance with no movement / change of muscle length OR strength exerted isometrically; 2 (examples) rugby scrum / tug-of-war / handstand;	2

Question	Answer	Marks												
1(d)(ii)	3 marks for any 3 of: 1 (type) resistance / weight / isometric / circuit training / interval training; 2 named exercise, e.g. plank / bridge OR weight held in stationary position; 3 (position held for) at least 10 seconds (depending on weight); 4 at least 2 repetitions / sets; 5 resistance at least 70% of 1 RM;	3												
1(e)(i)	3 marks for any 3 of: 1 type of joint; 2 length / elasticity of muscle / ligaments / tendons / skin / connective tissue; 3 shape of bones (at joint) / joint structure; 4 temperature; 5 age; 6 gender; 7 injury; 8 training / lifestyle; 9 muscle / fat bulk;	3												
1(e)(ii)	4 marks for: <table border="1" data-bbox="261 981 1348 1480"> <tbody> <tr> <td data-bbox="261 981 624 1048">1 (name)</td> <td data-bbox="624 981 986 1048">sit and reach test;</td> <td data-bbox="986 981 1348 1048">goniometer / goniometry;</td> </tr> <tr> <td data-bbox="261 1048 624 1249">2 (description)</td> <td data-bbox="624 1048 986 1249">sit on floor, legs straight, feet against box / bench AND reach forward as far as possible (with arms straight);</td> <td data-bbox="986 1048 1348 1249">fulcrum / pivot / head of goniometer is placed at joint (axis of rotation) AND arms of goniometer align with bones / limbs;</td> </tr> <tr> <td data-bbox="261 1249 624 1384">3 (score / result of test)</td> <td data-bbox="624 1249 986 1384">hold position (for 2 seconds) and record score / distance reached;</td> <td data-bbox="986 1249 1348 1384">record angle in degrees shown (on goniometer);</td> </tr> <tr> <td data-bbox="261 1384 624 1480">4 (evaluation)</td> <td data-bbox="624 1384 986 1480">compare score to (normative) tables / data;</td> <td data-bbox="986 1384 1348 1480">compare angle to (normative) tables / data;</td> </tr> </tbody> </table>	1 (name)	sit and reach test;	goniometer / goniometry;	2 (description)	sit on floor, legs straight, feet against box / bench AND reach forward as far as possible (with arms straight);	fulcrum / pivot / head of goniometer is placed at joint (axis of rotation) AND arms of goniometer align with bones / limbs;	3 (score / result of test)	hold position (for 2 seconds) and record score / distance reached;	record angle in degrees shown (on goniometer);	4 (evaluation)	compare score to (normative) tables / data;	compare angle to (normative) tables / data;	4
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Question	Answer	Marks
1(f)	<p>4 marks for 4 of:</p> <p><i>Sub-max. 3 marks for positives only, or negatives only.</i></p> <p>(positives – sub-max. 3 marks)</p> <ol style="list-style-type: none"> 1 increases muscle mass / size / growth OR increases strength / power; 2 rapid repair of injured connective tissue; 3 enhances intensity of training; 4 improves recovery rate (after training); 5 increases metabolism OR reduces body fat; 6 increases bone density / bone growth / bone strength; 7 difficult to detect; <p>(negatives – sub-max. 3 marks)</p> <ol style="list-style-type: none"> 1 illegal / banned substance; 2 abnormal growth of bone / muscle tissue; 3 enlargement of vital organs, e.g. heart OR can cause heart attacks; 4 growth of hands / feet / face OR acromegaly; 5 risk of cancers / diabetes / liver / kidney damage / stroke / infections from needles; 6 high blood pressure; 7 reduces natural HGH production; 8 reduction in size of pituitary gland and / or reduced secretions; 	4

Question	Answer	Marks
2(a)(i)	<p>2 marks for:</p> <ol style="list-style-type: none"> 1 (cognitive) thoughts / beliefs / knowledge about an object OR a performer knows that going to the gym will improve fitness; 2 (affective) feelings / emotions about an object OR a performer does not enjoy training; 	2
2(a)(ii)	<p>4 marks for:</p> <ol style="list-style-type: none"> 1 (persuader) if persuader is high status / knowledgeable / role model then more likely to change; 2 (recipient) the resistance of performer to change OR performer must want to change; 3 (message) message must be clear / concise / informative / unambiguous / accurate; 4 (situation) timing / context allows recipient to take in information OR if others around are also supporting the message the performer is more likely to change; 	4

Question	Answer	Marks
2(b)	5 marks for any 5 of: <i>(sub-max. 3 marks if no example used; sub-max. 4 marks if only one example used)</i> 1 specific to individual / activity, e.g. shot putter improving throwing technique; 2 measurable / assessable, e.g. a 100-m sprinter improving his PB by 0.1 seconds; 3 agreed / accepted (between coach and performer), e.g. sprinter accepts the need to improve sprint start to reduce race time OR seen as achievable; 4 realistic or within the reach of performer or challenging (so motivation is high), e.g. talented netballer aiming to achieve selection for county / national squad; 5 time-phased / timed or have a set time-frame or have a deadline for assessment, e.g. achieve level 13 in the MSFT in 6 weeks time; 6 exciting to motivate performer to achieve them, e.g. amateur runner wanting to complete a marathon and raise funds for charity; 7 recorded to monitor progress, e.g. cyclist writing down goals in training diary;	5
2(c)(i)	1 mark for: 1 (arousal) state of readiness to perform OR degree of alertness / activation / emotional control;	1
2(c)(ii)	2 marks for: 1 low ability / beginners / cognitive / associative performers need low / lower arousal; 2 high ability / elite / experienced / autonomous performers need high / higher arousal;	2
2(d)(i)	4 marks for any 4 of: 1 social inhibition; 2 mistakes / errors / reduction in skill / reduction in performance; 3 increase in anxiety / nervousness / arousal / muscle tension OR lower self-confidence; 4 evaluation apprehension OR negative feelings about being judged; 5 causes distractions OR affects ability to focus / concentrate OR poor decision-making / communication issues; 6 widening of attentional focus OR too many cues to attend to; 7 causes a performer to 'choke' OR overthink situations;	4
2(d)(ii)	5 marks for any 5 of: 1 train in front of an audience OR train with distractions; 2 reduce importance of the event; 3 improve selective attention; 4 ensure skills / tactics / individual roles are well learned; 5 use stress / anxiety management techniques OR a given example of these, e.g. mental rehearsal / goal-setting; 6 encourage team mates to support each other OR use verbal encouragement; 7 use attributions correctly; 8 increase self-efficacy of performer; 9 performance accomplishments OR give success;	5

Question	Answer	Marks
2(e)	<p>3 marks for:</p> <p><i>Must link a sporting example to attribution for each mark.</i></p> <p>1 external unstable / luck AND e.g. a golfer gets a lucky bounce onto the green; 2 internal stable / ability AND e.g. a county squash player against the world no. 1 ranked player; 3 internal unstable / effort AND e.g. a football team saying they lost because they did not try hard enough;</p>	3
2(f)	<p>4 marks for 4 of:</p> <p><i>Sub-max. 2 marks for each.</i></p> <p>(mastery orientation – sub-max. 2 marks) 1 strong motivation to succeed; 2 shows persistence despite failure / approach behaviour; 3 has high self-confidence / positive mind-set; 4 attributes failure to internal AND unstable or controllable factors;</p> <p>(learned helplessness – sub-max. 2 marks) 5 feeling / belief that failure is inevitable; 6 due to previous past experience OR failure reinforced by others; 7 avoidance behaviour / gives up easily / does not try OR low self-confidence; 8 attributes failure to internal AND stable OR attributes failure to uncontrollable factors; 9 can be global or specific;</p>	4

Question	Answer	Marks
3(a)(i)	<p>5 marks for any 5 of:</p> <p>1 <u>cities</u> submit bid to IOC; 2 7–11 years prior to event; 3 (detailed) plan / video to support bid must be included; 4 must have local / national government support OR backed by government financial guarantees; 5 lobbying / personal approaches to IOC members OR attempts to influence IOC officials; 6 members of evaluation commission visit bid cities; 7 National Olympic Committee (NOC) oversees bid; 8 members of evaluation commission vote for one bid; 9 city with majority is selected (more votes than all other cities put together to win outright); 10 if no clear majority, city with lowest number of votes is rejected, and new vote is made;</p>	5

Question	Answer	Marks
3(a)(ii)	3 marks for any 3 of: 1 high security at all venues; 2 provide funding for high levels of policing; 3 vetting / accreditation system for all athletes / officials / support staff; 4 use of advanced policing technology / CCTV / number plate recognition; 5 awareness that Games have high risk of attack; 6 assistance / support from other countries; 7 allow (some) athletes to make own living / security arrangements (e.g. Usain Bolt);	3
3(a)(iii)	5 marks for any 5 of: 1 increase in participation in sport OR health benefits from participation; 2 top-class facilities available for use (after Games); 3 regeneration of city OR improved infrastructure OR use of village for housing; 4 development of tourism (during and after Games); 5 feel-good factor / national pride / brings country together; 6 educational programmes OR cultural / disability awareness; 7 employment opportunities; 8 skills acquired (in hosting OG) used for further development / innovation; 9 sustainability / environmental issues addressed; (Accept negative impacts on environment etc.) 10 funding not spent on other areas that may need it; 11 spiral of extravagance / pressure to borrow to spend big; 12 only host city (not rest of country) benefits; 13 relocation of businesses / people; 14 facilities often unused after event / white elephants; 15 problems occurring may impact on future bids; 16 evidence of lower participation in some sports;	5
3(b)	5 marks for any 5 of: 1 host nation sets agenda on who is invited; 2 Berlin (1936) Germany refused to select Jewish athletes; 3 countries lobby IOC / bring pressure to bear to refuse entry; 4 London (1948) Germany / Japan refused entry; 5 South Africa refused entry due to apartheid system; 6 Montreal (1976) African nations boycott; 7 Montreal (1976) Taiwan refused entry; 8 countries boycott Games in response to host countries actions; 9 Moscow (1980) USA (and others) boycott; 10 Los Angeles (1984) Soviet Union boycott; 11 Seoul (1988) North Korea refuse to send athletes / boycott; 12 countries choosing not to select women competitors for cultural / religious reasons;	5

Question	Answer	Marks
3(c)	<p>6 marks for any 6 of:</p> <ol style="list-style-type: none"> 1 saved the Games from collapse OR ensures financial stability of Games; 2 cities showed reluctance to host due to huge costs involved; 3 funding from media rights; 4 funding from sponsorship / merchandising / private companies; 5 host city / NOC now get financial support from IOC / The Olympic Programme (TOP); 6 money available to pay for facilities / security / media coverage of minority sports; 7 allows OG to attract best / world-class athletes; 8 IOC can fund fight against doping; 9 companies must abide by Olympic ideals OR no advertising in venues during Games; 10 IOC can fund other cultural / educational / anti-discriminatory projects; 11 IOC / NOC can employ professionals from business / marketing / etc.; 	6
3(d)	<p>6 marks for any 6 of:</p> <ol style="list-style-type: none"> 1 pre-WW2 belief that the disabled could not take part in sport; 2 post-WW2 changing attitudes to participation; 3 treatment / rehabilitation of injured soldiers OR morale boosting effects; 4 importance of Stoke Mandeville Hospital / Stoke Mandeville Games; 5 development of new technology; 6 creation of new / adapted sports; 7 legislation / equal opportunities / anti-discrimination; 8 classification system developed; 9 creation of elite competitions for disabled athletes OR Rome (1960) first Paralympic Games; 10 importance of Seoul (1988) – first use of same venue as OG; 11 games now held at same venue as Olympics / same format as Olympics; 12 increasing media coverage / funding / marketing / sponsorship; 13 increasing awareness / popularity of role models / Games act as showcase; 14 general acceptance (in society) as athletes in their own right; 15 disabled athletes competing alongside able-bodied athletes (in OG); 16 role of NGBs; 	6