

# **Physical Education**

General Certificate of Secondary Education **1970**

## **Mark Scheme for June 2010**

---

OCR (Oxford Cambridge and RSA) is a leading UK awarding body, providing a wide range of qualifications to meet the needs of pupils of all ages and abilities. OCR qualifications include AS/A Levels, Diplomas, GCSEs, OCR Nationals, Functional Skills, Key Skills, Entry Level qualifications, NVQs and vocational qualifications in areas such as IT, business, languages, teaching/training, administration and secretarial skills.

It is also responsible for developing new specifications to meet national requirements and the needs of students and teachers. OCR is a not-for-profit organisation; any surplus made is invested back into the establishment to help towards the development of qualifications and support which keep pace with the changing needs of today's society.

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by Examiners. It does not indicate the details of the discussions which took place at an Examiners' meeting before marking commenced.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the Report on the Examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

© OCR 2010

Any enquiries about publications should be addressed to:

OCR Publications  
PO Box 5050  
Annesley  
NOTTINGHAM  
NG15 0DL

Telephone: 0870 770 6622  
Facsimile: 01223 552610  
E-mail: [publications@ocr.org.uk](mailto:publications@ocr.org.uk)

## SECTION A

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
1	<p><b>Speed and agility are basic abilities in the performance of physical activities. Name <u>one</u> other basic ability.</b></p> <p><b>One mark max for a correct response.</b></p> <p>1 Co-ordination/flexibility/balance/reaction time/stamina/strength/power/endurance/muscular endurance</p>	<p><b>1</b> <b>1 max</b></p>	<p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Skills</li> <li>- Sports, eg football</li> </ul>
2	<p><b>Good personal hygiene is important when participating in physical activities. Give <u>two</u> ways in which you would avoid the minor infection of a verruca.</b></p> <p><b>Two marks max. One mark for each correct response.</b></p> <p>1 Wear flip flops/sandals in communal showers/verruca sock(s)  2 Wash feet (thoroughly)  3 Dry feet thoroughly  4 Change socks regularly/daily  5 Clean footwear  6 Avoid sharing shoes/socks  7 Use your own towel/wash towels regularly  8 Avoid contact with others who have verrucas</p>	<p><b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>2 max</b></p>	<p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Plasters</li> <li>- Appropriate footwear</li> </ul>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
3	<p>Give <b><u>one</u></b> long-term training effect on the heart.</p> <p>One mark max for correct response.</p> <p>1 Heart gets bigger/stronger/cardiac hypertrophy/stroke volume increases/pump more blood/pump more O<sub>2</sub>/more efficient/low resting heart rate/cardiac output increases</p>	<p>1</p> <p>1 max</p>	<p>Do not accept:</p> <ul style="list-style-type: none"> <li>- Health benefits, eg prevents heart disease (too vague)</li> <li>- Fitness components, eg cardiovascular endurance</li> </ul>
4	<p>Give <b><u>two</u></b> advantages of flexibility training.</p> <p>Two marks max. One mark for each correct response.</p> <p>1 Avoids/prevents/reduces injury</p> <p>2 Increases range of movement/more supple/can bend and stretch more/more mobile/move more freely/gives you a better reach</p> <p>3 Increases speed/agility</p> <p>4 Prepares body for activity</p> <p>5 Increases strength/power over a range of movement</p> <p>6 To enable more skills/better skills to be carried out/better technique/suitable skill example, eg splits</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2 max</p>	<p>Do not accept:</p> <ul style="list-style-type: none"> <li>- Makes you more flexible</li> <li>- Sport example without a skill</li> </ul>
5	<p>Describe <b><u>two</u></b> ways in which white blood cells can help in the performance of physical activities.</p> <p>Two marks max. One mark for each correct response.</p> <p>1 Combat/fight/stop infection</p> <p>2 Remains healthy/stops disease/stops illness</p> <p>3 So that performer remains active/fit to carry on/recovers/and can participate fully</p> <p>4 Performer feels well/positive/has well-being</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2 max</p>	

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
6	<p>Give <u>two</u> extrinsic motivating factors that can be used effectively in physical activity.</p> <p>Two marks max. One mark for each correct response.</p> <p>1 Rewards/badges/trophies</p> <p>2 Financial benefits/sponsorship</p> <p>3 Praise/positive reinforcement/feedback</p> <p>4 Pleasing others/role models/friends/family/coach/family tradition</p> <p>5 The crowd/audience/others watching/applause</p> <p>6 Fame/publicity/recognition from others/status in group</p> <p>7 Winning/ranking/being number 1/selection/talent scout</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2 max</p>	

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
7	<p><b>Explain <u>three</u> ways in which the environment can affect participation in physical activities.</b></p> <p><b>Three marks max. One mark for each correct response.</b></p> <p>1 Weather can affect/rain/snow/wind etc</p> <p>2 Temperature can affect/too hot too cold</p> <p>3 Live in countryside more likely to have outdoor activities/live in cities more likely to have indoor facilities/live by water more likely to do water sports/live by mountains more likely to ski etc</p> <p>4 If climate/weather 'good'/summer weather then more likely to have outdoor activities, eg cricket</p> <p>5 If 'poor' climate/weather/despising surroundings may not be so motivated to participate</p> <p>6 The state of playing surfaces can affect/litter prevents participation</p> <p>7 If close to facilities/easy to get to then more likely to participate/further away less likely/lack of facilities/lack of access</p> <p>8 Positive effect of other people/If supported by parents/friends/positive influences more likely to participate</p> <p>9 Negative effect of other people/of not supported/influenced away from activities then less likely to participate</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>3 max</p>	<p><b>Do not accept:</b></p> <p><b>- List as explanations</b></p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
8	<p>Give an example of a physical activity that shows mostly <u>aerobic</u> work and a physical activity that shows mostly <u>anaerobic</u> work. Give a reason for each.</p> <p>Four marks max. One mark for each correct response</p> <p><b>Example of aerobic activity:</b>  1 Swimming/long distance running/cycling/team games must be stated</p> <p><b>Reason:</b>  2 Requires oxygen/goes on for a long time/endurance/stamina/low intensity / use of slow twitch fibres</p> <p><b>Example of anaerobic activity:</b>  3 100m/tennis serve/weight lifting/sprints in games activities must be stated</p> <p><b>Reason:</b>  4 Use of speed/power/no need for oxygen/short period of time/high intensity / use of fast twitch fibres</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>4 max</b></p>	<p><b>Accept:</b></p> <ul style="list-style-type: none"> <li>- Example of activity even if reason is incorrect</li> <li>- Reason even if example is incorrect</li> <li>- Name of game as example but cannot use same example twice</li> </ul> <p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Without breathing for anaerobic</li> </ul>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
9	<p><b>Explain why a performer who is focused during a physical activity may be more effective.</b></p> <p><b>Three marks max. One mark for each correct response.</b></p> <ul style="list-style-type: none"> <li>1 Better concentration/more alert</li> <li>2 More consistent performances/fewer mistakes</li> <li>3 Not easily distracted/put off by others</li> <li>4 Controls arousal/feelings/less anxious/right state of mind/more confident</li> <li>5 Can make decisions quickly/better reaction/response time</li> <li>6 Know what you are doing / set personal goals/ may see what is needed better/more effective perception/decision making/think about tactics</li> <li>7 Can go over what is required/mental rehearsal/be ready for action/ mentally prepared</li> <li>8 Try harder/determined/motivated/more competitive/psyched up</li> <li>9 Reduces risk of injury</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>3 max</b></p>	<p><b>Do not accept:</b></p> <p><b>- Can focus more</b></p>

Total of 20 marks



## SECTION B

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (a)	<p>Give <u>two</u> ways in which you may be intrinsically motivated to participate in physical activities.</p> <p>Two marks max. One mark for each correct response.</p> <ul style="list-style-type: none"> <li>1 Enjoyment/find it fun/makes you happy</li> <li>2 Achieving/striving for personal goals/bests</li> <li>3 To feel/look good/personal well being/self esteem</li> <li>4 To keep healthy/fit/weight control</li> <li>5 For pride/satisfaction/think you are good</li> <li>6 Feel part of a group/team/sense of belonging/making friends</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>2 max</p>	
B1 (b)	<p>What is meant by vital capacity and tidal volume and what often happens to these after long-term exercise?</p> <p>Three marks max. One mark for each correct response.</p> <p><b>Vital capacity:</b></p> <ul style="list-style-type: none"> <li>1 Maximal volume forcefully expired (after maximal inspiration)/the total amount of air you breathe out (after fully breathing in)</li> </ul> <p><b>Tidal volume:</b></p> <ul style="list-style-type: none"> <li>2 Volume of air inspired/breathed in per breath/volume of air expired/breathed out per breath.</li> </ul> <p><b>After long-term exercise:</b></p> <ul style="list-style-type: none"> <li>3 Long term adaptation increases (slightly)</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>3 max</p>	<p>Do not accept:</p> <p>- For tidal volume breath in <u>AND</u> out</p> <p><b><u>BOTH</u></b> vital capacity and tidal volume to be increased for point 3.</p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (c)	<p><b>What does agility mean in physical activities? Identify a situation when agility is important in a physical activity of your choice.</b></p> <p><b>Two marks max. One mark for each correct response</b></p> <p><b>Agility means:</b></p> <p>1 Ability to move and change direction quickly/at speed/be able to quickly change direction effectively/under control/balanced control</p> <p><b>Situation:</b></p> <p>2 Any example of changing direction at speed and under control, eg swerve (in hockey)/side-step (in rugby)</p>	<p><b>1</b></p> <p><b>1</b></p> <p><b>2 max</b></p>	<p><b>Accept:</b></p> <ul style="list-style-type: none"> <li>- Situation even if definition is incorrect</li> <li>- Give BOD on situation if has idea</li> </ul> <p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Change direction on its own</li> </ul>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (d)	<p><b>Explain how politics can have positive and negative effects on participation in physical activities.</b></p> <p><b>Four marks max. One mark for each correct response.</b></p> <p><b>Positive – (three marks max):</b></p> <ul style="list-style-type: none"> <li>1 Provide funds/money</li> <li>2 Provide facilities</li> <li>3 Provide equipment</li> <li>4 Make PE compulsory in schools/National Curriculum</li> <li>5 Provide coaches/expert advice/ provides SSCO's</li> <li>6 Promotion of sport/campaigns for healthy active lifestyle/TV/poster adverts</li> <li>7 Support for national team that gains success and inspires participation</li> <li>8 Running competitions/events (local council)/supporting bid for Olympics/ further competitions</li> <li>9 Pass laws to prevent prejudice/discrimination/promote/ enable equality of opportunity</li> </ul> <p><b>Negative – (three marks max):</b></p> <ul style="list-style-type: none"> <li>10 Unequal funding/lack of funds/little funding for low level performers</li> <li>11 Some sports more supported/promoted than others</li> <li>12 Can prevent you from competing/participating</li> <li>13 Not make PE compulsory on schools/not in National Curriculum</li> <li>14 Lack of facilities/equipment/coaches in certain areas</li> <li>15 Too much emphasis on elite/top level/Olympics</li> <li>16 Highlights those who are obese/unhealthy that leads to loss of self esteem</li> <li>17 Political unrest might stop participation</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>(Sub max 3)</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>(Sub max 3)</p> <p>4 max</p>	<p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Opposites, eg provides funds (positive) and does not provide funds (negative) = 1 mark only</li> <li>- More than 3 marks max for positive or more than 3 marks max for negative</li> </ul>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (e)	<p><b>Describe the structure of fast twitch and slow twitch muscle fibres and explain their functions in physical activities.</b></p> <p><b>Four marks max. One mark for each correct response.</b></p> <p><b>Structure of fast twitch:</b> 1 White/larger/thicker/less compact/poor blood supply/fewer capillaries</p> <p><b>Function of fast twitch:</b> 2 Move/contracts quickly/forcibly/anaerobic/without oxygen/easily fatigued/high force of contraction / used for sprinting</p> <p><b>Structure of slow twitch:</b> 3 Red/smaller/thinner/more compact/good blood supply/many capillaries</p> <p><b>Function of slow twitch:</b> 4 Contracts slowly/aerobic/with oxygen/goes on for long time/can contract repeatedly/less force of contraction/for endurance/long distance running /can keep going/used for marathon</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>4 max</b></p>	<p><b>Accept:</b> - Function answer if put for structure - Structure answer if put for function</p>
B1 (f)	<p><b>Give <u>two</u> reasons why blood platelets are important when participating in physical activities.</b></p> <p><b>Two marks max. One mark for each correct response.</b></p> <p>1 Help to clot blood/helps form a scab 2 To prevent further bleeding 3 To help recovery from injury/can keep going following injury 4 Prevents infection</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>2 max</b></p>	<p><b>Accept for 2 marks:</b> <b>Clots blood to prevent bleeding</b></p> <p><b>BOD fights infection</b></p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (g)	<p>Explain how the setting of personal goals can motivate participants in physical activities.</p> <p>Three marks max. One mark for each correct response.</p> <p><i>Candidates may use SMART/ER approach – if so then look for the following links to motivation:</i></p> <ol style="list-style-type: none"> <li>1 Gives them something to go for/a reason to improve/persist/need for reward/practical example, eg to score a hatrick</li> <li>2 Gets them focussed</li> <li>3 Gives competitive element/drive to beat others/yourself/encourages to work hard/determined/push yourself/dedicated</li> <li>4 Improves confidence</li> <li>5 Achievement is recognised/rewarded/feel satisfied when you reach the goal</li> <li>6 Can be within your capabilities/designed for you to succeed/ avoids failure</li> <li>7 Can give you a sense that there is enough time to reach the goal</li> <li>8 Can split up more difficult aims into more realisable objectives/can succeed with short-term goals before the long-term goals</li> <li>9 Can be negotiated/agreed with others/sense of ownership/control</li> <li>10 Makes it exciting/enjoy the activity/enjoyable</li> </ol>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>3 max</p>	<p>Look for explanation rather than <u>motivated</u> being repeated.</p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (h)	<p>Give <u>three</u> ways in which private enterprise can affect participation in physical activities.</p> <p>Three marks max. One mark for each correct response.</p> <p><b>(Positive factors):</b></p> <ul style="list-style-type: none"> <li>1 Provides facilities</li> <li>2 Provides equipment</li> <li>3 Provides coaches/personal trainers</li> <li>4 Can provide medical-related/physio resources/staff/nutritional advice</li> <li>5 Gives more exclusivity/more inspiring environment/attractive</li> <li>6 Provides publicity to participate/offers/adverts to participate</li> <li>7 Provides child care facilities/crèche</li> </ul> <p><b>(Negative factors):</b></p> <ul style="list-style-type: none"> <li>8 Can be too expensive/only for those who can afford</li> <li>9 Does not provide for some groups/excludes some / need to be a member</li> <li>10 Facilities/resources inaccessible for some/elderly/disabled</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>3 max</p>	

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B1 (i)	<p>Give <u>three</u> reasons why examination courses in physical education might promote participation in physical activities.</p> <p>Three marks max. One mark for each correct response.</p> <ol style="list-style-type: none"> <li>1 School provides resources/(better) equipment that can be used by all/specialist teachers/coaches</li> <li>2 Encourages participation because the exam has practical element/you have to participate to pass the exam/more PE lessons/high status of subject</li> <li>3 Can educate to participate (in the right way)/promotes safety/more knowledge/health</li> <li>4 Provides role models in the school/others want to copy successful pupils/others around you are motivated</li> <li>5 You get to try (new) sports/a range/different sports/activities/different opportunities/learn skills/improve fitness</li> <li>6 You make friends with others who participate and this encourages you to participate in physical activities/fun/enjoyment</li> <li>7 You get reward/a certificate/qualifications through participation/career/get a grade</li> <li>8 Links often made with outside clubs/agencies which encourage participation outside school</li> <li>9 Extra curricular activities are often taken up for exam candidates to improve</li> </ol>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>3 max</p>	

Total of 26 marks

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B2 (a)	<p><b>Why does a high level of cardiovascular endurance benefit health and performance in physical activities?</b></p> <p><b>Two marks max. One mark for each correct response.</b></p> <p><b>Health:</b></p> <p>1 Heart gets stronger/fitter/efficient/less likely to suffer from heart disease/better blood flow/more oxygen /more efficient circulatory system/less likely for arteries to be clogged/less likely to contract other diseases/infections/live longer/ lower resting pulse rate</p> <p><b>Performance:</b></p> <p>2 Go on for longer/stamina/better recovery/quicker recovery/able to do more work/don't get tired easily</p>	<p>1</p> <p>1</p> <p><b>2 max</b></p>	<p><b>Accept under health:</b></p> <ul style="list-style-type: none"> <li>- Higher cardiac output/stroke volume</li> <li>- Lower blood pressure etc</li> </ul> <p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Answers related to lungs and muscles</li> </ul>
B2 (b)	<p><b>Give <u>two</u> long-term effects of training on the circulatory system.</b></p> <p><b>Two marks max. One mark for each correct response.</b></p> <p>1 Increased capillaries/capillarisation</p> <p>2 Stronger/more elastic blood vessels</p> <p>3 Capillaries more efficient/more effective gaseous exchange</p> <p>4 More oxygen available/increased capacity for carrying oxygen</p> <p>5 Better redistribution of blood to working muscles/more effective vascular shunt</p> <p>6 Decrease (resting) blood pressure</p> <p>7 Decrease in blood viscosity/thinner</p> <p>8 Increase in red blood cells/haemoglobin/more blood</p> <p>9 Heart adaptations, eg stronger/higher cardiac output</p> <p>10 Increase removal of waste products/CO<sub>2</sub></p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>2 max</b></p>	<p><b>Do not accept:</b></p> <ul style="list-style-type: none"> <li>- Efficient on its own</li> </ul> <p><b>Heart adaptations 1 mark only</b></p>



Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B2 (c)	<p><b>Describe an ectomorphic physique. Identify a physical activity suitable for an ectomorphic physique and explain why.</b></p> <p><b>Three marks max. One mark for each correct response.</b></p> <p><b>Description - (one mark max):</b></p> <p>1 Long/tall and thin body type/narrow body/skeleton/low muscle /low fat/skinny</p> <p><b>Identification - (one mark max only if linked to suitability):</b></p> <p>2 Long distance runners (and similar endurance activities)</p> <p>3 High jumpers/basketballers (and similar activities)</p> <p><b>Suitability - (one mark max):</b></p> <p>4 Because less weight/muscle mass to carry / less heavy</p> <p>5 Because less body fat/higher centre of gravity</p> <p>6 Because of height</p>	<p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>3 max</b></p>	<p><b>Accept:</b></p> <p>- suitability examples, eg Basketball dunking</p> <p>- any suitable identification if relevant explanation is given, eg – Cricket when bowler can bowl faster because he/she is taller (1 mark for Identification 1 mark for suitability)</p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B2 (d)	<p><b>Explain why water as part of a balanced diet is important to those who participate in physical activities.</b></p> <p><b>Three marks max. One mark for each correct response.</b></p> <p>1 Hydrates/stops/controls dehydration/replace water lost</p> <p>2 Make us feel better/less faint/drowsy/less likely to contract heatstroke/less dizzy/sick/feel more alert/headache</p> <p>3 Keeps us healthy</p> <p>4 To stop/control exhaustion/to keep us active/keeps us going/prevent fatigue</p> <p>5 To enable more efficient/effective chemical reactions to take place in the body</p> <p>6 Acts as carrier of nutrients/minerals in the blood</p> <p>7 Helps to get rid of waste products</p> <p>8 Helps to cool the body (when evaporates on skin)</p>	<p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>1</b></p> <p><b>3 max</b></p>	

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B2 (e)	<p><b>What does the 12 minute run test measure? How would the results of the 12 minute run test indicate an individual's strengths and weaknesses?</b></p> <p><b>Three marks max. One mark for each correct response</b></p> <p><b>Measurement (one mark max):</b>  1 Measures endurance/stamina</p> <p><b>Results as indicators (two marks max):</b>  2 High/better (score) - relates to endurance/stamina type activities/how good their stamina is  3 High (score) can show more determination/effort/motivation  4 Low/worse (score) - low endurance/stamina/needs to work on endurance  5 Low (score) can show low determination/lack of effort/lack of motivation  6 Intermediate - to match activity, eg many game activities</p>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>3 max</b></p>	<p><b>Do not accept:</b>  - Finds out how fit you are (Vg)</p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B2 (f)	<p><b>Explain how the principle of overload can be applied in a physical activity training programme. Give <u>two positive</u> effects of overload when training for a physical activity.</b></p> <p><b>Five marks max. One mark for each correct response.</b></p> <p><b>How you use the principle of overload - (three marks max):</b></p> <ul style="list-style-type: none"> <li>1 Makes <i>you</i> (muscles /body) work harder</li> <li>2 Increasing the frequency of training - how often</li> <li>3 Increasing the intensity of training</li> <li>4 Increasing the time spent training - how long</li> <li>5 Type of training (-could be linked with intensity/time/frequency)</li> </ul> <p><b>Positive effects of overload - (two marks max):</b> (Makes you)</p> <ul style="list-style-type: none"> <li>6 Fitter/efficient/effective</li> <li>7 Stronger/bulks/bigger</li> <li>8 Faster/more powerful</li> <li>9 More flexible</li> <li>10 Able to last longer in an activity/more endurance/stamina (with associated benefits)</li> <li>11 Can be motivating</li> <li>12 Enables skill learning/better performance</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>(Sub max 3)</b></p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>(Sub max 2)</b></p> <p><b>5 max</b></p>	<p><b>If Frequency, Intensity, Time, Type are listed = 1 mark max</b></p> <p><b>Give 1 mark only for Increase FITT principle</b></p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B2 (g)	<p>Describe <u>three</u> immediate short-term effects of exercise on muscles.</p> <p>Three marks max. One mark for each correct response.</p> <ul style="list-style-type: none"> <li>1 Increase in temperature/warm up/hotter</li> <li>2 Increased/quicker blood flow to muscles</li> <li>3 Increase in oxygen uptake/usage</li> <li>4 Muscles contract more often/more quickly</li> <li>5 More of the muscle fibres contract/more force</li> <li>6 Increase breakdown of muscle glycogen/uses energy quicker</li> <li>7 Become more flexible/pliable/elastic/looser</li> <li>8 Stiffness/soreness/tiredness/aching/cramp/pain</li> <li>9 Injury</li> <li>10 Increase levels of lactic acid/build up of CO<sub>2</sub>/O<sub>2</sub> debt</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>3 max</b></p>	

Total of 21 marks

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B3 (a)	<p>Describe <u>three</u> hazards associated with a swimming pool for someone who wishes to participate in a water-based physical activity.</p> <p>Three marks max. One mark for each correct response.</p> <ul style="list-style-type: none"> <li>1 (Deep) water</li> <li>2 Shallow water (for diving/jumping)</li> <li>3 Temperature of water</li> <li>4 Other people/too crowded/poor behaviour</li> <li>5 Incorrect chemical balance/too much/too little chlorine</li> <li>6 Dirty water/litter</li> <li>7 Objects/equipment in the water</li> <li>8 Slippy/wet surfaces</li> <li>9 Hard surfaces on poolside</li> <li>10 Uneven surfaces (on poolside)</li> <li>11 Objects/equipment on poolside/diving boards/litter</li> <li>12 Poor acoustics</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>3 max</p>	<p>Do not accept: Injuries/drowning</p>

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
B3 (b)	<p><b>Explain how you would minimise risks in a swimming pool and the surrounding area.</b></p> <p><b>Three marks max. One mark for each correct response.</b></p> <ul style="list-style-type: none"> <li>1 Warning signs/markers for depth</li> <li>2 Safety checks on equipment</li> <li>3 Check chemical levels/chlorine balance in water (regularly)</li> <li>4 Keep water clean</li> <li>5 Sections for certain ages/abilities/restricted access/ not too many in pool</li> <li>6 Know your own limitations</li> <li>7 Safety rules/no running etc/educate users of pools</li> <li>8 Buoyancy aids/swimming aids/lifebelts</li> <li>9 Supervision/lifeguard presence</li> <li>10 Dry surrounding areas/matting</li> <li>11 Check for uneven surfaces/mend surfaces</li> <li>12 Support machinery for disabled</li> <li>13 Storage of equipment</li> <li>14 Clear/loud instructions</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>3 max</b></p>	
B3 (c)	<p><b>Give <u>three</u> ways in which you would treat a muscle injury during a physical activity.</b></p> <p><b>Three marks max. One mark for each correct response.</b></p> <ul style="list-style-type: none"> <li>1 Rest</li> <li>2 Ice/cool water</li> <li>3 Compression/bandage/support</li> <li>4 Elevation/keep limb up/above heart level</li> <li>5 Refer to medical specialist if necessary/get expert help</li> </ul>	<p>1</p> <p>1</p> <p>1</p> <p>1</p> <p>1</p> <p><b>3 max</b></p>	

Total of 9 marks

Question Number	Expected Answer	Marks	Rationale/Additional Guidance
<b>QWC</b>	<p><b>4 marks are available for the quality of written communication for B1 and B2 questions.</b></p> <p>There will be <b>few</b>, if any, <b>errors</b> of grammar, punctuation and spelling.</p> <p>There may be <b>some errors</b> of grammar, punctuation and spelling, but not such as to suggest a weakness in these areas.</p> <p>There will be <b>several errors</b> in grammar, punctuation and spelling, however these will rarely affect understanding of the answer.</p> <p>There will be <b>many errors</b> in grammar, punctuation and spelling, sometimes affecting understanding of the answer.</p> <p>There will be <b>many errors</b> in grammar, punctuation and spelling and writing may be unclear. Understanding of the answer will be affected.</p>	<p><b>4</b></p> <p><b>3</b></p> <p><b>2</b></p> <p><b>1</b></p> <p><b>0</b></p> <p><b>4 max</b></p>	<p><b>Assume 4 marks to start with and then make a judgement based on the descriptors.</b></p> <p><b>- 4 marks can still be awarded with a <u>few</u> errors. The written communication does not have to be perfect for 4 marks to be scored.</b></p> <p><b>- 0 marks rarely given and for those when it is <u>very</u> difficult to understand.</b></p>

**Total for paper = 76 marks + 4 marks QWC = 80 total marks for paper**



**OCR (Oxford Cambridge and RSA Examinations)**  
**1 Hills Road**  
**Cambridge**  
**CB1 2EU**

**OCR Customer Contact Centre**

**14 – 19 Qualifications (General)**

Telephone: 01223 553998

Facsimile: 01223 552627

Email: [general.qualifications@ocr.org.uk](mailto:general.qualifications@ocr.org.uk)

**[www.ocr.org.uk](http://www.ocr.org.uk)**

For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored

**Oxford Cambridge and RSA Examinations**  
**is a Company Limited by Guarantee**  
**Registered in England**  
**Registered Office; 1 Hills Road, Cambridge, CB1 2EU**  
**Registered Company Number: 3484466**  
**OCR is an exempt Charity**



**OCR (Oxford Cambridge and RSA Examinations)**  
**Head office**  
**Telephone: 01223 552552**  
**Facsimile: 01223 552553**