

# GCSE (9–1) Physical Education

## J587/01 Physical factors affecting performance

### Sample Question Paper

### Version 2.6

## Date – Morning/Afternoon

Time allowed: 1 hour

## Version 2.6



**You must have:**



First name												
Last name												
Centre number								Candidate number				

## INSTRUCTIONS

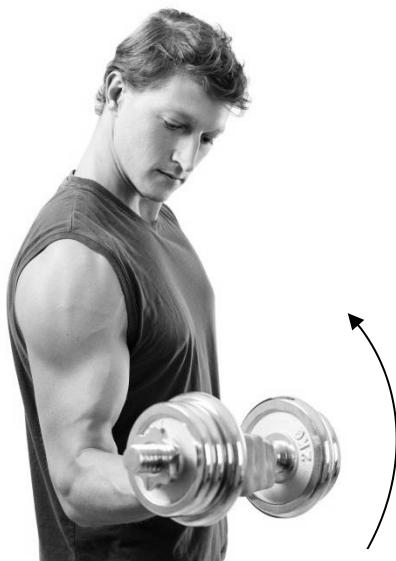
- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink.
- Answer **all** the questions.
- Read each question carefully. Make sure you know what you have to do before starting your answer.
- Write your answer to each question in the space provided. If additional space is required, you should use the lined page(s) at the end of this booklet. The question number(s) must be clearly shown.
- Do **not** write in the bar codes.

## INFORMATION

- The total mark for this paper is **60**.
- The marks for each question are shown in brackets [ ].
- Quality of extended response will be assessed in the question marked with an asterisk (\*).
- This document consists of **16** pages.

**Section A**  
**Answer all the questions.**

**1** The image below shows someone performing a bicep curl.



Name the agonist and the antagonist muscles used when performing this move.

Agonist:

.....

Antagonist:

.....

**[1]**

**2** Compare continuous training and fartlek training.

.....

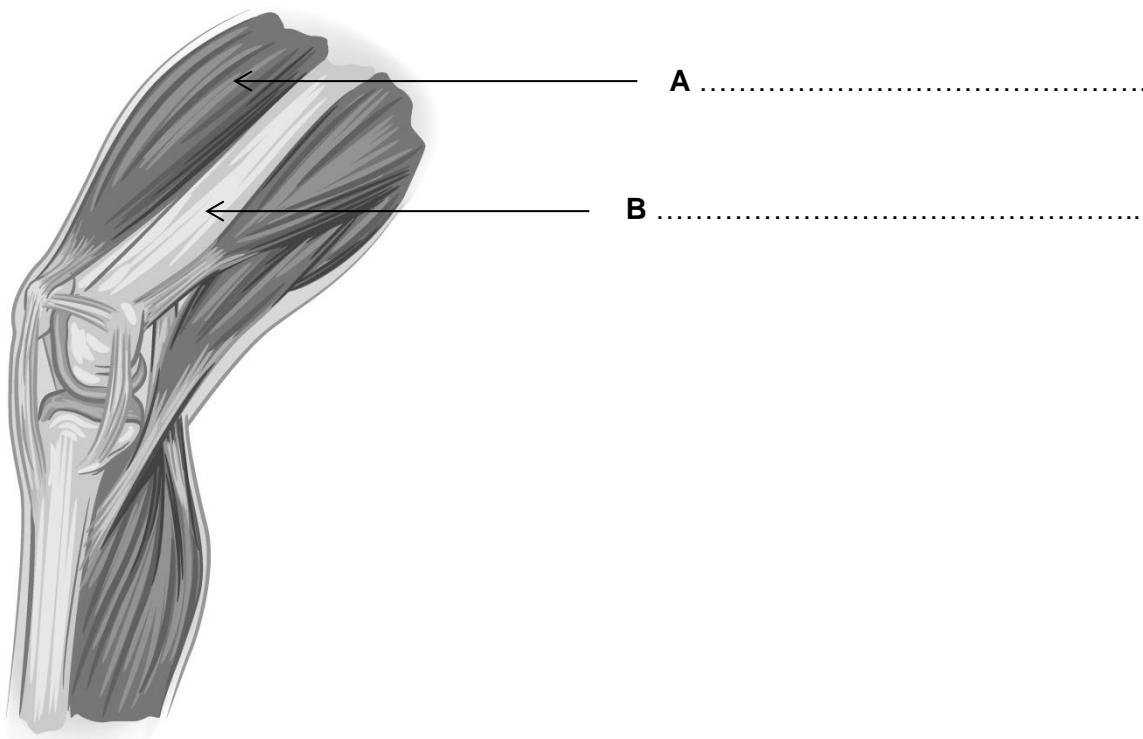
.....

.....

**[2]**

3 (a) Fig.1 shows a diagram of the knee. Label the muscle group **A** and the bone **B**.

Fig.1



[2]

(b) Describe **two** roles of ligaments within joints when performing a physical activity.

.....

.....

.....

.....

[2]

4 Which **one** of the following is the best example of the overload principle of training?  
Put a tick (✓) in the box next to the correct answer.

(A) A weightlifter who loses muscle hypertrophy due to not training because of injury.

(B) A javelin thrower who lifts too much during a weights session.

(C) A hockey player who adapts their training session to suit their needs.

(D) A basketball player who works harder than normal during a training session.

[1]

5 Fig.2 below shows the passage of air from when oxygen is breathed in through the mouth or nose until oxygen is passed to the red blood cells.

Put the following words in the correct order to complete Fig.2.

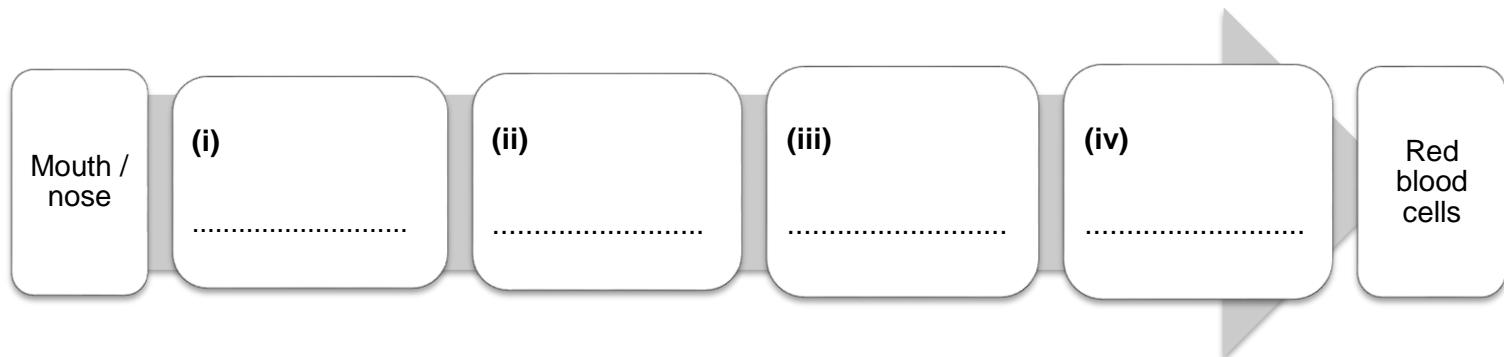
Bronchi

Alveoli

Trachea

Bronchiole

Fig.2



[1]

6 Describe **one** role of red blood cells during exercise.

.....

[1]

7 The dancer in the picture below has performed a movement that has passed through the frontal plane.



Is this statement true or false? Draw a circle around your answer.

True

False

[1]

8 Which **one** of the following statements is false?  
Put a tick (✓) in the box next to the correct answer.

(A) The movement at the elbow joint during a biceps curl is an example of flexion and extension.

(B) The deltoid at the shoulder joint during a biceps curl is an example of a fixator.

(C) Most of the lever systems that provide movement in sport are examples of third class levers.

(D) An example of a second class lever is a tennis player using their elbow joint during a forehand shot.

[1]

9 Identify the waste product which causes muscular fatigue during exercise.

.....

[1]

10 Leon has just taken part in a rugby match and needs to complete a cool down.

Complete **Table 1** below by:

- (i) identifying the missing component of a cool down
- (ii) describing the missing cool down activity
- (iii) describing the physical benefit of the cool down activity.

**Table 1**

Component of cool down	Description of cool down activity	Physical benefit
(i)	light jogging around the rugby pitch	(iii)
stretching	(ii)	promotes recovery of muscles for next rugby match

[3]

11 Complete the following statements using words from the box below.

(a) The volume of air moved in and out of the lungs per breath is known as .....

(b) The series of images below show a golf swing.



The main movement plane during a golf swing is .....

stroke volume	sagittal	rotation
minute ventilation	transverse	tidal volume

[2]

12 What class of lever is involved when performing a header in a game of football?

.....

[1]

13 Describe how the skeleton performs **three** of its functions.

1 .....

.....

2 .....

.....

3 .....

.....

[3]

14 Mobility is a key component of warm ups. Describe **two** different practical examples of mobility exercises which could be used as part of a warm up for named physical activities or sports.

Mobility exercise.....

Physical activity or sport:.....

[1]

Mobility exercise.....

Physical activity or sport:.....

[1]

15 Which axis of rotation will a gymnast be using when performing a cartwheel?

.....

[1]

16 Identify a suitable test that can be used to assess the stamina of a marathon runner.

.....

[1]

17 Which **one** of the following is **not** an articulating bone of the elbow joint?  
Put a tick (✓) in the box next to the correct answer.

(A) humerus	<input type="checkbox"/>
(B) radius	<input type="checkbox"/>
(C) clavicle	<input type="checkbox"/>
(D) ulna	<input type="checkbox"/>

[1]

18 Outline what is meant by High Intensity Interval Training (HIIT).

.....  
.....

[1]

19 Using a practical example, explain **one** way correct footwear can minimise the risk of injury in sport or physical activity.

.....

[1]

20 Which **one** of the following is the best practical example of muscular endurance?

(A) An athlete running a 1500 metre race.	<input type="checkbox"/>
(B) A sprinter driving out of the blocks at the start of a race.	<input type="checkbox"/>
(C) A rugby player who sprints from the half way line to score a try.	<input type="checkbox"/>
(D) A basketball player dribbling around an opponent to score a basket.	<input type="checkbox"/>

[1]

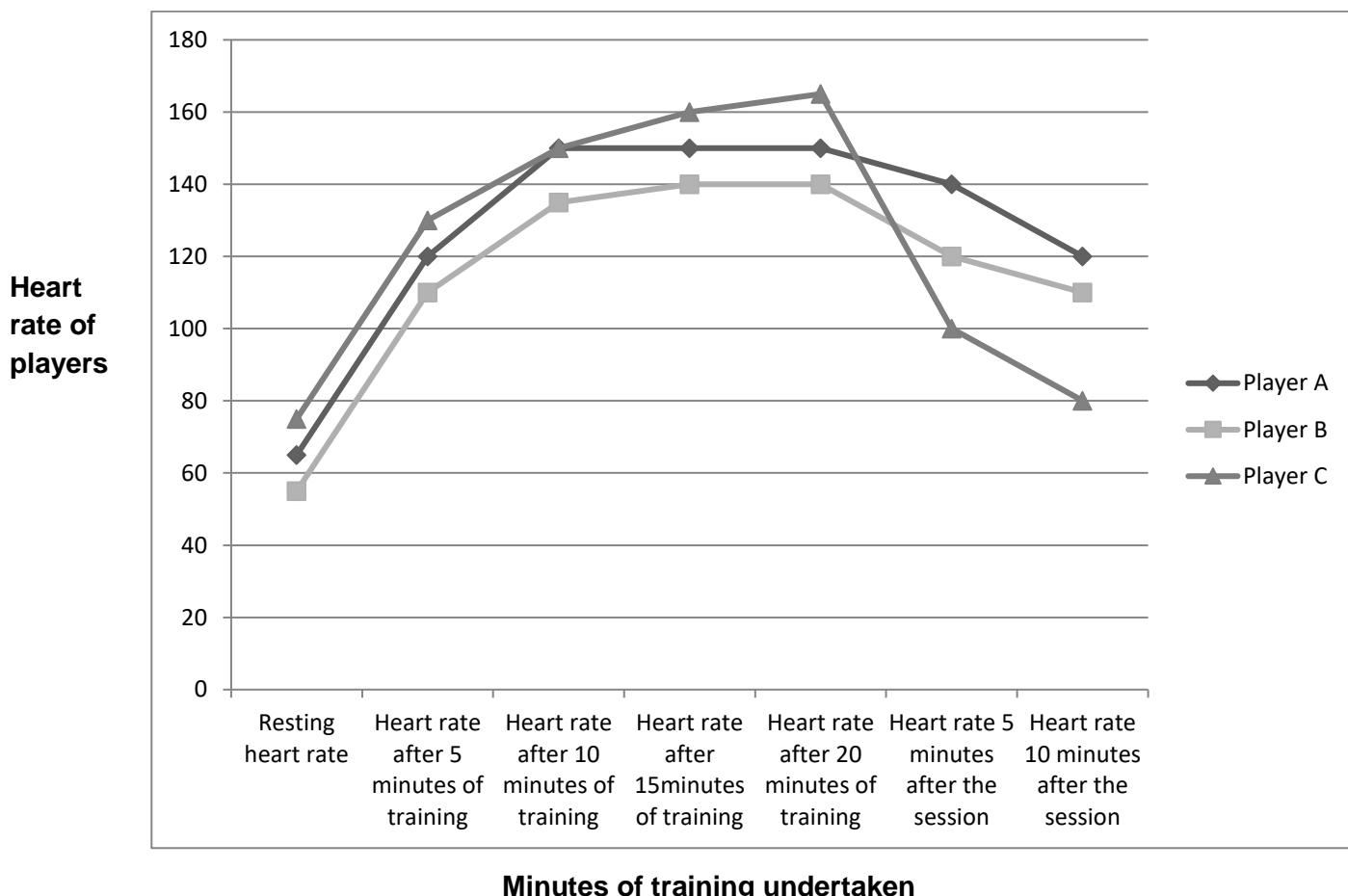
## Section B

Answer all the questions.

21 As part of their 8 week pre-season football training programme, players are monitored in terms of the changes in heart rate that occur during and after a training session.

**Fig. 3** shows a graph of heart rate results for three players during the first training session of the programme.

Fig. 3



**(a)** Using the information in Fig.3, analyse the players' fitness levels, performance in training and recovery.

.....  
.....  
.....  
.....

[3]

**(b)** Describe **two** short term effects which the pre-season training programme could have on the players' hearts.

1 .....

.....

2 .....

.....

[2]

**(c)** Evaluate how the long term effects of exercise on the muscular system could be beneficial to a footballer.

.....

.....

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.....

[5]

22 (a) The heart is responsible for pumping blood around the body.

Describe how the double circulatory system performs this function.

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.....

.....

[4]

(b) Two dancers are preparing for performance. Dancer A is sitting on the floor performing static stretching. Dancer B is performing a dress rehearsal of their physically demanding dance routine.

(i) Describe how the changes in blood flow for Dancer B will be different to those for Dancer A.

.....

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.....

.....

.....

.....

.....

.....

[3]

(ii) Compare the changes in the respiratory system of Dancer A to Dancer B.

.....

.....

.....

.....

.....

.....

.....

.....

[3]

**23 (a)** 'Type' is one of the components of the FITT principle of training. High Intensity Interval Training is an example of a 'type' of training.

Give **two** other practical examples of 'type' in personal exercise programmes and assess **two** ways in which applying this principle might help someone who is carrying out this programme.

.....

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.....

.....

[4]

**(b)\*** Using practical examples, explain how a personal trainer might reduce the risk of injury to a participant when delivering a training session in a fitness centre.

How could the general health, fitness and wellbeing of a participant influence their risk of injury?

[6]

## Additional Answer space

If you require additional space to complete an answer please use this page. The question number(s) must be clearly shown.

## Summary of updates

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Date	Version	Details
September 2021	2.6	Updated copyright acknowledgements.

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Oxford Cambridge and RSA

**...day June 20XX – Morning/Afternoon**

**GCSE (9–1) Physical Education**

**J587/01 Physical factors affecting performance**

**SAMPLE MARK SCHEME**

**Duration: 1 hour**

**MAXIMUM MARK 60**

**This document consists of 24 pages**

## MARKING INSTRUCTIONS

### PREPARATION FOR MARKING SCORIS

1. Make sure that you have accessed and completed the relevant training packages for on-screen marking: Scoris Assessor Online Training; OCR Essential Guide to Marking.
2. Make sure that you have read and understood the mark scheme and the question paper for this unit. These are posted on the RM Cambridge Assessment Support Portal <http://www.rm.com/support/ca>
3. Log-in to scoris and mark the 10 practice responses (“scripts”) and the 10 standardisation responses

YOU MUST MARK 10 PRACTICE AND 10 STANDARDISATION RESPONSES BEFORE YOU CAN BE APPROVED TO MARK LIVE SCRIPTS.

### MARKING

1. Mark strictly to the mark scheme.
2. Marks awarded must relate directly to the marking criteria.
3. The schedule of dates is very important. It is essential that you meet the Scoris 50% and 100% (traditional 40% Batch 1 and 100% Batch 2) deadlines. If you experience problems, you must contact your Team Leader (Supervisor) without delay.
4. If you are in any doubt about applying the mark scheme, consult your Team Leader by telephone or the Scoris messaging system, or by email.
5. Work crossed out:
  - a. where a candidate crosses out an answer and provides an alternative response, the crossed out response is not marked and gains no marks
  - b. if a candidate crosses out an answer to a whole question and makes no second attempt, and if the inclusion of the answer does not cause a rubric infringement, the assessor should attempt to mark the crossed out answer and award marks appropriately.
6. Always check the pages (and additional objects if present) at the end of the response in case any answers have been continued there. If the candidate has continued an answer there then add a tick to confirm that the work has been seen.

7. There is a NR (No Response) option. Award NR (No Response)

- if there is nothing written at all in the answer space
- OR if there is a comment which does not in any way relate to the question (e.g. 'can't do', 'don't know')
- OR if there is a mark (e.g. a dash, a question mark) which isn't an attempt at the question

Note: Award 0 marks - for an attempt that earns no credit (including copying out the question)

8. The scoris **comments box** is used by your team leader to explain the marking of the practice responses. Please refer to these comments when checking your practice responses. **Do not use the comments box for any other reason.**  
If you have any questions or comments for your team leader, use the phone, the scoris messaging system, or e-mail.

9. Assistant Examiners will send a brief report on the performance of candidates to your Team Leader (Supervisor) by the end of the marking period. The Assistant Examiner's Report Form (AERF) can be found on the RM Cambridge Assessment Support Portal (and for traditional marking it is in the Instructions for Examiners). Your report should contain notes on particular strength displayed as well as common errors or weaknesses. Constructive criticism of the question paper/mark scheme is also appreciated.

10. For answers marked by levels of response:

- a. **To determine the level** – start at the highest level and work down until you reach the level that matches the answer
- b. **To determine the mark within the level**, consider the following:

Descriptor	Award mark
On the borderline of this level and the one below	At bottom of level
Just enough achievement on balance for this level	Above bottom and either below middle or at middle of level (depending on number of marks available)
Meets the criteria but with some slight inconsistency	Above middle and either below top of level or at middle of level (depending on number of marks available)
Consistently meets the criteria for this level	At top of level

## 11. Annotations used in the detailed Mark Scheme

	?	Unclear
	BOD	Benefit of doubt
	Cross	Incorrect
	L1	Level 1
	L2	Level 2
	L3	Level 3
	REP	Repeat
	Tick	Correct
	VG	Vague
	SEEN	Noted but no credit given
	S	S (indicates 'sub max reached')
	EG	Example
	K	Knowledge
	DEV	Development

- Sub-maxes are indicated with **S**; the guidance section of the mark scheme shows which questions these are relevant to.
- K** and **DEV** used instead of ticks on the extended response question to indicate where knowledge or development points from the indicative content have been made.

On this extended response question, one K or DEV does not necessarily equate to one mark being awarded; the marking is based on a levels of response mark scheme which awards a level and mark holistically based upon the quality of the response overall against the levels descriptors.

Section A				
Question		Answer	Marks	Guidance
1		Agonist – Biceps  Antagonist - Triceps	1  1 x (AO2)	Must have both parts to gain the mark
2		Two marks from:  1. Fartlek is a variation of speed/speed play <b>whereas</b> continuous more constant speed/no (little) rest  2. Fartlek consists of a variety of activities/cross country running with sprints/different terrains <b>whereas</b> continuous just jogging/running with no variation  3. Fartlek includes short and long distance work/running and walking/different intensities/aerobic and anaerobic work <b>whereas</b> continuous mainly long distance/same intensity/aerobic	2  2 x (AO1)	Must compare fartlek <b>and</b> continuous training to award each mark.
3	(a)	Muscle group A – Quadriceps  Bone B – Femur	2  2 x (AO1)	One mark for each.
	(b)	Two marks from:  1. They connect bone to tissue/they are connective tissue 2. They stabilize the joints during movement/prevent dislocation/restrict movement 3. They are able to protect joints/bones (because of their elasticity)/they can absorb shock 4. They help maintain correct posture/movement or enable proprioception	2  2 x (AO1)	

Section A				
Question		Answer	Marks	Guidance
4		(D) - A basketball player who works harder than normal during a training session	1 1 x (AO2)	
5		(i) trachea (ii) bronchi (iii) bronchiole (iv) alveoli	1 1 x (AO1)	Must be in correct order for mark to be awarded.
6		One mark from:  1. transports oxygen to the working muscles 2. transport carbon dioxide (to the lungs)	1 1 x (AO1)	Do not accept single word answers.  Do not accept answers relating to features e.g. made in bone marrow – answers must relate to <b>role during exercise</b> .
7		True	1 1 x (AO3)	
8		(D) – An example of a second class lever is a tennis player using their elbow joint during a forehand shot	1 1 x (AO2)	
9		Lactic acid	1 1 x (AO1)	

Section A				
Question		Answer	Marks	Guidance
10		<p>Three marks for:</p> <p>(i) lower intensity exercise (AO1)</p> <p>(ii) static/maintenance or any example of a targeted stretch e.g. hamstring stretch (AO2)</p> <p>(iii) <b>gradually</b> lowers heart rate/reduce temperature (AO1)</p>	<p><b>3</b></p> <p>2 x (AO1) 1 x (AO2)</p>	<p>Must answer all three parts to gain three marks.</p> <p>Accept equivalent examples for stretching as long as qualified, i.e. stretching a targeted area or a type of stretching.</p> <p><b>Gradually</b> or equivalent required for physical benefit (part iii).</p>
11		<p>Two marks for:</p> <p>(a) tidal volume (AO1)</p> <p>(b) transverse (AO3)</p>	<p><b>2</b></p> <p>1 x (AO1) 1 x (AO3)</p>	
12		First/1st (class lever)	<p><b>1</b></p> <p>1 x (AO1)</p>	
13		<p>Any three from:</p> <p>1. support – keeps body upright/provides framework to support muscles/tissues in body</p> <p>2. posture – skeleton/skeletal structure gives correct shape to the body</p> <p>3. protection – parts of the skeleton/skeletal structure protect internal organs/reduce risk of injury/damage on impact (e.g. ribs protect the heart, cranium protects the brain)</p> <p>4. movement – skeleton/skeletal structure allows muscle</p>	<p><b>3</b></p> <p>3 x (AO1)</p>	<p>Must describe the function to be awarded marks, examples may form part of the description e.g. cranium protecting the brain on impact.</p>

Section A				
Question		Answer	Marks	Guidance
		<p>attachment/provides leverage to enable movement</p> <p>5. (red) blood cell production – bone marrow in some larger bones produces blood cells</p> <p>6. storage of minerals – bones release minerals in to the blood as needed (calcium phosphorus)</p>		
14		<p>1. Shoulder circles – taking arm through full range of movement at the shoulder</p> <p>2. Arm swings - swing both arms out to your sides and then cross them in front of your chest</p> <p>3. Lateral rotations of neck - turn your chin laterally toward your left shoulder and then rotate it toward your right shoulder</p> <p>Examples of activities could include: swimming, volleyball, tennis, javelin, etc...</p> <p>4. Hip circles - with your hands on your hips and feet spread wider than your shoulders, make circles with your hips in a clockwise direction</p> <p>5. Side bends - knees slightly bent, hands resting on hips, bend first to one side, then the other, avoiding the tendency to lean either forwards or backwards</p> <p>6. Leg swings - Weight on your left leg and your right hand on the wall for balance; swing your right leg forward and backward</p> <p>7. Lunges - Keeping the back straight lunge forward with the right leg; return to the starting position and repeat</p>	2 2 x (AO2)	<p>Accept other suitable examples of physical activities/sports but must be related to the mobility exercise described.</p> <p>Both description of mobility exercise and applicable physical activity/sport required for each mark.</p>

Section A				
Question		Answer	Marks	Guidance
		with the left leg  Examples of activities: football, hockey, high jump, basketball, netball, etc....		
15		Frontal	1 1 x (AO3)	
16		One mark from:  1. Multi-stage fitness test/bleep/beep test  2. (Cooper)12 minute run/walk	1 1 x (AO1)	
17		(C) – clavicle	1 1 x (AO1)	
18		One mark from:  1. a training idea in which high intensity periods are alternated with low/moderate intensity intervals  2. involves high overload with (short) rest periods in between  3. involves repetition of short bursts of anaerobic activity	1 1 x (AO1)	Do not accept single word answers.  Do not accept 'high intensity' on its own.

Section A				
Question		Answer	Marks	Guidance
		followed by aerobic activity		
19		<p>One mark for:</p> <ol style="list-style-type: none"> <li>1. can stop you slipping over e.g. spikes in athletics</li> <li>2. prevent blisters when performing if well-fitting e.g. for endurance events</li> <li>3. protection from impact e.g. toe protectors in cricket boots</li> <li>4. provides stability and support for foot and/or ankle e.g. basketball boots</li> <li>5. absorbs the impact e.g. cushioned soles for road running</li> </ol>	<p>1 1 x (AO2)</p>	Only accept if a suitable practical example is used.
20		C. The rugby player who sprints from the half way line to score a try is showing good muscular endurance.	<p>1 1 x (AO2)</p>	

Section B				
Question		Answer	Marks	Guidance
21	(a)	<p>Three marks from:</p> <ol style="list-style-type: none"> <li>1. (Fitness levels) Player B has the best level of fitness because they have the lowest resting heart rate. Player C has the lowest fitness level</li> </ol>	<p>3 3 x (AO3)</p>	

Section B				
Question		Answer	Marks	Guidance
		<p>as they have the highest resting heart rate.</p> <p>2. (Performance in training) Player C might have worked hardest during the session as their heart rate peaks highest</p> <p>OR</p> <p>(Performance in training) Players A and B may not have worked as hard in the middle of the session as their heart rate plateaus (Player A from 10-20mins; Player B from 15-20 mins)</p> <p>3. (Recovery) Players A and B both do cool downs but Player C does not as there is a sudden decrease in heart rate after the session for player C whereas the decrease is gradual for players A and B</p>		
	(b)	<p>Two marks from:</p> <p>1. increased heart rate</p> <p>2. increase in stroke volume</p> <p>3. increase in blood temperature</p> <p>4. more blood/oxygen diverted to working muscles</p>	<p>2</p> <p>2 x (AO2)</p>	

Section B				
Question		Answer	Marks	Guidance
		5. blood vessels near skin open to let out heat		
(c)		<p>Five marks from:</p> <ol style="list-style-type: none"> <li>increase in size/mass/hypertrophy/growth (of muscle) e.g. – Easier for player to shield the ball away from opponent</li> <li>increase in strength/stronger/power/tone/force e.g. – Able to kick the ball harder/further</li> <li>increase in speed (of contraction) e.g. – Beating an opponent in a sprint to get the ball first</li> <li>increase in muscular endurance or able to last longer/decrease in fatigue e.g. – Easier to perform for the entire game/90 minutes</li> <li>increase in flexibility/able to stretch further/elasticity e.g. – Able to stretch for the ball further when making a tackle/less likely to get injured</li> <li>increase tolerance to lactic acid e.g. – Able to keep playing for longer/ harder/increased chances of lasting 90 minutes</li> <li>increase in recovery rate e.g. – Player ready for next game/training quicker</li> <li>increased rate of removal of lactic acid e.g. - Able to keep playing for longer/harder/increased chances of lasting 90 minutes</li> </ol>	<p><b>5</b></p> <p>5 x (AO3)</p>	Only accept answers that are linked to how they may actually benefit a footballer.

Section B				
Question		Answer	Marks	Guidance
		<p>9. greater potential for energy production e.g. - Able to keep playing for longer/ harder/increased chances of lasting 90 minutes</p> <p>10. increase in size/number of mitochondria e.g. Able to compete in a game faster/longer</p> <p>11. increase in capillaries/more oxygen/haemoglobin available e.g. the player is able to work harder/longer</p> <p>12. helps to prevent injury/assists with recovery from injury e.g. – Less prone to injury during a game of football</p>		
22	(a)	<p>Four marks from:</p> <p>1. heart consists of two separate loops/circuits/one loop for heart and lungs and one for heart and rest of body</p> <p>2. blood travels through the heart twice (during a complete cycle around the body)</p> <p><b>(Sub-max three marks for):</b></p> <p>3. pulmonary circulation</p> <p>4. deoxygenated blood from right ventricle to lungs</p> <p>5. pulmonary artery carries deoxygenated blood to lungs</p>	<b>4</b> 4 x (AO1)	

Section B				
Question		Answer	Marks	Guidance
		<p>6. oxygenated blood back to left atrium</p> <p>7. pulmonary vein carries oxygenated blood back to left atrium</p> <p><b>(Sub-max three marks for):</b></p> <p>8. systemic circulation</p> <p>9. oxygenated blood from left ventricle to body/muscles</p> <p>10. Aorta carries oxygenated blood to body tissues/muscles</p> <p>11. deoxygenated blood back to right atrium</p> <p>12. vena cava carries deoxygenated blood back to right atrium</p>		
(b) (i)		<p>Three marks from:</p> <p>1. Dancer B will be experiencing more blood flow to their working muscles than Dancer A because they are being more active/more intense activity level</p> <p>2. Dancer B will have less blood going to other organs than Dancer A because more is going to working muscles to provide more oxygen</p> <p>3. The re-distribution of blood to working muscles to provide oxygen during physical activity is known as</p>	<p><b>3</b></p> <p>3 x (AO2)</p>	Must have compared both dancers to access 3 marks

Section B				
Question		Answer	Marks	Guidance
		<p>the vascular shunt mechanism</p> <p>4. Dancer A will be experiencing all of these too, but to a much lesser extent than Dancer B because the static stretches are lower intensity activity and so muscles do not require so much oxygen.</p>		
	(ii)	<p>Three marks from:</p> <p>1. Dancer B's respiratory/breathing rate will be greatly increased due to the intensity of the activity; Dancer A will not experience such an increase.</p> <p>2. Dancer B's tidal volume will be greatly increased along with the depth of their breathing because they are working harder</p> <p>3. Dancer B's minute volume/ventilation will be greatly increased due to the intensity of the activity and need for more oxygen.</p> <p>4. Dancer A will have a rise in breathing rate, tidal volume and minute volume but to a much lesser extent than Dancer B because of their level of activity.</p>	<b>3</b> 3 x (AO2)	Must have compared both dancers to access 3 marks
23	(a)	<p>Two marks from:</p> <p>(examples of 'type')</p> <p>1. continuous 2. fartlek 3. interval</p>	<b>4</b> 2 x (AO2)	Give one mark for each of two suitable examples of applying 'type' to a personal exercise training programme

Section B				
Question		Answer	Marks	Guidance
		<p>4. circuit training        5. weight training        6. plyometrics</p> <p>Two marks from:</p> <p>1. adherence – varying types of exercise/training makes it less boring/reduces tedium        2. appropriateness/effectiveness - if the type(s) of exercise are appropriate, then training will be more effective        3. avoiding injury – can reduce risk of injury by doing a range of exercises instead of repeating the same ones        4. positive feelings/reinforcement – getting good results from the right type(s) of training makes you want to continue        5. clearer outcomes – easier to tell if your needs/aims are being met if correct type(s) of training used</p>	2 x (AO3)	Must <b>assess <u>how</u></b> the principle can help for each mark.

Section B			
Question	Answer	Marks	Guidance <u>Discriminators</u>
23 (b)*	<p><b>Level 3 (5–6 marks)</b></p> <ul style="list-style-type: none"> <li>• detailed knowledge &amp; understanding</li> <li>• clear and consistent practical application of knowledge &amp; understanding</li> <li>• effective analysis/evaluation and/or discussion/explanation/development</li> <li>• relevant information drawn upon from other areas of the specification</li> <li>• accurate use of technical and specialist vocabulary</li> <li>• there is a well-developed line of reasoning which is clear and logically structured. The information presented is relevant and substantiated.</li> </ul> <p><b>Level 2 (3–4 marks)</b></p> <ul style="list-style-type: none"> <li>• satisfactory knowledge &amp; understanding</li> <li>• some success in practical application of knowledge &amp; understanding</li> <li>• analysis/ evaluation and/or discussion/explanation/development attempted with some success</li> <li>• some relevant information drawn upon from other areas of the specification</li> <li>• technical and specialist vocabulary used with some accuracy</li> <li>• there is a line of reasoning presented with some structure. The information presented is in the most-part relevant and supported by some evidence.</li> </ul> <p><b>Level 1 (1–2 marks)</b></p> <ul style="list-style-type: none"> <li>• basic knowledge &amp; understanding</li> <li>• little or no attempt at practical application of knowledge &amp; understanding</li> </ul>	6  2 x (AO1)  2 x (AO2)  2 x (AO3)	<p><b>Level 3</b></p> <ul style="list-style-type: none"> <li>• a detailed explanation of how risk of injury may be reduced is developed, with appropriate practical examples given (AO1 &amp; AO2)</li> <li>• several different ways in which health, fitness and wellbeing influence the risk of injury are discussed (AO3)</li> <li>• at the top of this level, all aspects are well addressed.</li> </ul> <p><b>Level 2</b></p> <ul style="list-style-type: none"> <li>• an explanation of some ways to reduce the risk of injury is given (AO1), with occasional development or application of practical examples (AO2)</li> <li>• some ways in which at least two of health, fitness and wellbeing influence the risk of injury <i>may be</i> discussed (AO3).</li> <li>• a detailed explanation of how risk of injury may be reduced with development (AO1 and AO2) can still achieve 4 marks but cannot access Level 3 (no AO3)</li> </ul> <p><b>Level 1</b></p> <ul style="list-style-type: none"> <li>• some basic knowledge and understanding relating to ways to reduce the risk of injury (AO1)</li> <li>• successful development of a point or use of an example (AO2) or attempt to explain how health, fitness or wellbeing influence the risk of injury (AO3) would indicate the top of this level</li> </ul>

Section B			
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	<ul style="list-style-type: none"> <li>little or no attempt to analyse/ evaluate and/or discuss/explain/develop</li> <li>little or no relevant information drawn upon from other areas of the specification</li> <li>technical and specialist vocabulary used with limited success</li> <li>the information is basic and communicated in an unstructured way. The information is supported by limited evidence and the relationship to the evidence may not be clear.</li> </ul> <p><b>(0 marks)</b></p> <ul style="list-style-type: none"> <li>no response or no response worthy of credit.</li> </ul> <p><b><u>Indicative content</u></b></p> <p><b>Ways of reducing risk of injury in delivery</b></p> <p><b>(AO1 = numbered points &amp; AO2 = bullet points)</b></p> <ol style="list-style-type: none"> <li>risk assessment/maintenance/replacement of machines/equipment <ul style="list-style-type: none"> <li>e.g. checking treadmill before the start of each training session</li> <li>e.g. replace exercise mats that are worn/display an out of use/faulty sign on treadmill</li> <li>e.g. stack step up boxes out of the way</li> <li>DEV. ensure all equipment /machines/stations are safe distance from each other</li> <li>e.g. rowing machine a safe distance from the treadmill</li> </ul> </li> </ol>		

Section B			
Question	Answer	Marks	Guidance
	<p>2. monitoring and addressing potential hazards</p> <ul style="list-style-type: none"> <li>• e.g. clean floor so not slippery/rough/use mats for hard floor / wipe up any spillages/water</li> <li>• e.g. ensure all litter/bags are put away to prevent slipping/tripping</li> <li>• DEV. make sure not too many people/crowded</li> <li>• e.g. one person to a machine</li> </ul> <p>3. Supervision of participants</p> <ul style="list-style-type: none"> <li>• DEV. teach correct use of equipment/proper technique</li> <li>• e.g. induction session demonstrating safe use of equipment</li> <li>• DEV. proper warm up/cool down</li> <li>• e.g. suitable description of warm up/cool down</li> <li>• DEV. make sure everyone following rules/protocols</li> <li>• e.g. posters displaying correct technique/rules</li> </ul> <p>4. instructions/advice on training might change based on risk assessment of participant</p> <ul style="list-style-type: none"> <li>• e.g. some training may not be suitable depending upon health/fitness/illness/injury/medical conditions identified</li> <li>• DEV. appropriate goal setting required</li> <li>• e.g. use of SMART principle</li> <li>• DEV. realistic and achievable goals will consider starting point of the participant</li> <li>• e.g. ensuring participants are not doing too much/over-exerting themselves</li> <li>• DEV. if base level of fitness not good, then training programme will aim to <u>gradually</u> improve this.</li> </ul>		

Section B			
Question	Answer	Marks	Guidance
	<ul style="list-style-type: none"> <li>• e.g. not lifting weights which are too heavy at first; not working at too high intensity</li> </ul> <p><b>Influence of participants health, fitness and wellbeing (AO3)</b></p> <p>5. there is more risk of injury where participants' general health is poor</p> <ul style="list-style-type: none"> <li>• DEV. they might be physically weaker</li> <li>• DEV. because they exercise less, they're less able to cope with exercise/body just not ready for exercise</li> <li>• e.g. underlying condition makes them susceptible to injury</li> </ul> <p>6. there is more risk of injury where participants' fitness is poor</p> <ul style="list-style-type: none"> <li>• DEV. muscles less strong so may not cope with intensity of exercise</li> <li>• e.g. more likely to pull muscles/sprain/strain</li> <li>• DEV. can lead to lack of balance/co-ordination/agility/flexibility</li> <li>• e.g. could make wrong decisions or injure/hurt themselves falling</li> </ul> <p>7. there is more risk of injury where participants' wellbeing is poor</p> <ul style="list-style-type: none"> <li>• DEV. could lead to lack of motivation</li> <li>• E.g. may not be trying properly and injure through incorrect technique</li> <li>• DEV. can mean less concentration/focus</li> <li>• E.g. could do something wrong/not listen to</li> </ul>		

Section B				
Question		Answer	Marks	Guidance
		<p>instructions and get injured</p> <ul style="list-style-type: none"><li>• DEV. could result in lack of confidence</li><li>• E.g. may not regularly attend so don't improve fitness</li><li>• E.g. low self-esteem leading to incorrect technique</li></ul>		

## Assessment Objectives (AO) grid

Question	AO1		AO2	AO3		(Use of data)	Total
<b>Section A</b>							
1		(Knowledge only)		1			1
2	2						2
3 (a)		2					2
3 (b)		2					2
4			1				1
5		1					1
6		1					1
7				1			1
8			1				1
9		1					1
10	2		1				3
11		1		1			2
12		1					1
13		3					3
14			2				2
15				1			1
16		1					1
17		1					1
18		1					1
19			1				1
20			1				1
<b>Section B</b>							
21 (a)				3		(3)	3
21 (b)			2				2
21(c)					5		5
22 (a)	4						4
22 (b) i			3				3
22 (b) ii			3				3

Question	AO1		AO2	AO3		(Use of data)	Total
23 (a)			2		2		4
23 (b)*	2		2	2			6
Total	10	15	20	8	7	(3)	60
	25			15			

\* = Assessment of extended response

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