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# A-level PHYSICAL EDUCATION 7582/1

Paper 1 Factors affecting participation in physical activity  
and sport

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Mark scheme

June 2025

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Version: 1.0 Final



Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

No student should be disadvantaged on the basis of their gender identity and/or how they refer to the gender identity of others in their exam responses.

A consistent use of 'they/them' as a singular and pronouns beyond 'she/her' or 'he/him' will be credited in exam responses in line with existing mark scheme criteria.

Further copies of this mark scheme are available from [aqa.org.uk](http://aqa.org.uk)

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## Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor for the level shows the average performance for the level. There are marks in each level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme.

### Step 1 Determine a level

Start at the lowest level of the mark scheme and use it as a ladder to see whether the answer meets the descriptor for that level. The descriptor for the level indicates the different qualities that might be seen in the student's answer for that level. If it meets the lowest level then go to the next one and decide if it meets this level, and so on, until you have a match between the level descriptor and the answer. With practice and familiarity you will find that for better answers you will be able to quickly skip through the lower levels of the mark scheme.

When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly level 3 with a small amount of level 4 material it would be placed in level 3 but be awarded a mark near the top of the level because of the level 4 content.

### Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will help. There will be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example.

You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the Indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

## Section A

### Applied anatomy and physiology

0 1

Which **one** of the following is responsible for delaying the spread of the electrical impulse in the cardiac conduction system?

[1 mark]

Marks for this question: AO1 = 1

A – Atrio-ventricular node

0 2

During aerobic exercise, arterio-venous oxygen difference (A-VO<sub>2</sub> diff) will increase.

Which **one** of the following is a reason for this increase in A-VO<sub>2</sub> diff?

[1 mark]

Marks for this question: AO2 = 1

C – Oxygen content of venous blood will be lower than at rest.

0 3

Describe the mechanisms within the body that support venous return.

[3 marks]

Marks for this question: AO1 = 3

**(Pocket valves - sub max 1)**

- valves prevent backflow of blood. (1)

**(Skeletal muscle pump - sub max 1)**

- muscles contracting will squeeze veins. (1)
- muscles contracting will push blood back towards the heart. (1)

**(Respiratory pump - sub max 1)**

- changes in pressure / volume in the chest / thorax will squeeze veins. (1)
- changes in pressure / volume in the chest / thorax will push blood back towards the heart. (1)

**(Suction pump - sub max 1)**

- pressure change in atria / heart relaxing / diastole occurring will produce a suction force. (1)
- pressure change in atria / heart relaxing / diastole occurring will pull blood back towards the heart. (1)

**(Smooth muscle - sub max 1)**

- smooth muscle contracting will squeeze veins. (1)
- smooth muscle contracting will push blood back towards the heart. (1)

Accept any other appropriate description of the mechanisms that support venous return.

Maximum 3 marks

0 4 . 1

Passive stretching and isometric muscle contraction are stages in PNF (Proprioceptive Neuromuscular Facilitation).

Each stage activates different proprioceptors.

For the **passive stretching** stage:

- name the main proprioceptor involved
- explain the role of that proprioceptor.

[2 marks]

**Marks for this question: AO2 = 2**

- Muscle spindles. (1)
- Detect the amount of stretch in a muscle / initiate a stretch reflex / cause the muscle to contract / prevent overstretching. (1)

*Award zero where main proprioceptor is incorrectly named.*

Accept any other explanation of the role of named main proprioceptor during the passive stretch stage of PNF stretching.

**Maximum 2 marks**

0 4 . 2

For the **isometric muscle contraction** stage:

- name the main proprioceptor involved
- explain the role of that proprioceptor.

[2 marks]

**Marks for this question: AO2 = 2**

- Golgi tendon organs. (1)  
*Do not accept GTO.*
- Detect the amount of tension / cause autogenic inhibition / the muscle to relax / override the stretch reflex. (1)

*Award zero where main proprioceptor is incorrectly named.*

Accept any other explanation of the role of named main proprioceptor during the isometric muscle contraction stage of PNF stretching.

**Maximum 2 marks**

|   |   |
|---|---|
| 0 | 5 |
|---|---|

Analyse how redistribution of blood during exercise helps performance.

**[3 marks]**

**Marks for this question: AO3 = 3**

- Vasoconstriction occurs / contraction of precapillary sphincters **to non-working** muscles / non-essential organs **which** allows more blood to be available for areas which need it. (1)
- Vasodilation occurs / relaxation of precapillary sphincters **to working** muscle **which** supplies them with more oxygen. (1)
- Vasodilation occurs / relaxation of precapillary sphincters **to working** muscle **which** helps to remove waste products / lactic acid. (1)
- Vasodilation occurs / relaxation of precapillary sphincters **to the skin** **which** helps regulate / reduce body temperature. (1)

Accept any other analysis of how redistribution of blood during exercise helps performance.

**Maximum 3 marks**

**0 6**

**Table 1** shows data collected from gas analysis  $\text{VO}_2$  max tests performed by football players on a treadmill. Each football player performed the same test on two separate occasions.

**Test 1** and **Test 2** were carried out one week apart.

Evaluate the suitability of this  $\text{VO}_2$  max test for football players. Refer to the validity and reliability of the test protocol, and the results in **Table 1** in your answer.

**[8 marks]**

**Marks for this question: AO1 = 2, AO2 = 3, AO3 = 3**

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

| Level | Marks | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 7–8   | Knowledge is consistently accurate and well detailed.<br>Application of breadth or depth of knowledge is clearly evident.<br>Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.<br>Relevant terminology is consistently used.<br>The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.              |
| 3     | 5–6   | Knowledge is usually accurate and detailed.<br>Application of breadth or depth of knowledge is often evident.<br>Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.<br>Relevant terminology is often used.<br>The answer usually demonstrates substantiated reasoning, clarity, structure and focus.                                    |
| 2     | 3–4   | Knowledge is sometimes accurate with some detail.<br>Application of breadth or depth of knowledge is sometimes evident.<br>Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.<br>Relevant terminology is sometimes used.<br>The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus. |
| 1     | 1–2   | Knowledge may be limited.<br>Application of breadth or depth of knowledge may be limited or not evident.<br>There may be little or no analysis and/or evaluation between different relevant factors and their impact.<br>Relevant terminology is occasionally used.<br>The answer may lack substantiated reasoning, clarity, structure and focus.                                                           |
|       | 0     | No relevant content.                                                                                                                                                                                                                                                                                                                                                                                        |

**Possible content may include:**

**AO1 Knowledge of validity, reliability and VO<sub>2</sub> max test**

- **Validity:** The extent to which a test or method measures what it sets out to measure.
- **Reliability:** The extent to which a test or method is consistent and repeatable.
- **VO<sub>2</sub> Max Test:** Measures O<sub>2</sub> inspired and expired during increasingly intense periods of work until the footballer reaches failure.
- This provides a specific value for the footballer's VO<sub>2</sub> max which is the maximum volume of oxygen they can take in and used in one minute (ml/kg/min<sup>-1</sup> OR L/kg/min<sup>-1</sup>).

**AO2 Application of VO<sub>2</sub> max test to footballers**

**Strengths**

- Aerobic power is an important component of fitness in football.
- Running on a treadmill replicates action of running in football.
- Gas analysis provides accurate / objective data / not an estimate.

**Weaknesses**

- Test involves continuous running unlike football which is stop start.
- Test requires maximal effort which may not be required in football.
- Aerobic power may not be the most important component of fitness for football.
- Does not require any skill / decision making which are important parts of football.

**AO3 Evaluation of the suitability of this VO<sub>2</sub> max test for footballers with reference to the validity and reliability of the test protocol and the results**

- Test is valid because running on a treadmill replicates action of running in football.
- The test is valid as it is a direct measure of VO<sub>2</sub> max which is important for some football positions.
- However, there are some positions where VO<sub>2</sub> max may not be considered important / other measures maybe more valid eg lactate threshold.
- Test is not valid because it involves continuous running unlike football which is stop start.
- Test is reliable because it has a standardised protocol which is followed every time and should make each test identical.
- Not reliable because it depends on a footballer's preparation/condition on the day of the test which may not be optimal.
- It is also valid and reliable as it uses direct analysis of gases to give a specific measure and not an estimate.
- With tests being complete only one week apart would expect minimal change in scores if the test was reliable. This is the case for footballers A, C, and D.
- Footballer B however has made a large improvement which calls into question the reliability of the test.
- Footballer B may have been unwell / not tried / injured during first test.
- Footballer B second test reliability may have been affected by human error (like treadmill incline) or transfer/storage of results.

Accept any other appropriate evaluation of the validity and reliability of a VO<sub>2</sub> max test conducted on a treadmill for a footballer.

**Maximum 8 marks**

|          |          |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>0</b> | <b>7</b> | <p>Fast glycolytic (type IIx) and slow twitch (type I) muscle fibres generate ATP in different ways.</p> <p>Analyse how differences in ATP generation in these muscle fibre types make them suitable for <b>two</b> athletics events of your choice.</p> <p>Refer to the structural <b>and</b> functional characteristics of the muscle fibres in your answer.</p> <p style="text-align: right;"><b>[15 marks]</b></p> |
|----------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Marks for this question: AO1 = 4, AO2 = 5, AO3 = 6**

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

| Level | Marks | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5     | 13–15 | <p>Knowledge is consistently comprehensive, accurate and well detailed.</p> <p>Application of breadth or depth of knowledge is clearly evident.</p> <p>Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.</p> <p>Relevant terminology is almost always used.</p> <p>The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.</p>                          |
| 4     | 10–12 | <p>Knowledge is usually comprehensive, accurate and detailed.</p> <p>Application of breadth or depth of knowledge is often evident.</p> <p>Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.</p> <p>Relevant terminology is usually used.</p> <p>The answer usually demonstrates substantiated reasoning, clarity, structure and focus.</p>                                                 |
| 3     | 7–9   | <p>Knowledge is generally accurate and sometimes detailed.</p> <p>Application of breadth or depth of knowledge is sometimes evident.</p> <p>Some analysis and/or evaluation is made between different relevant factors and their impact but may sometimes lack coherence.</p> <p>Relevant terminology is used but may sometimes be missing.</p> <p>The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.</p>                  |
| 2     | 4–6   | <p>Knowledge is sometimes accurate but may lack detail.</p> <p>Application of breadth or depth of knowledge is occasionally evident.</p> <p>Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.</p> <p>Relevant terminology is occasionally used.</p> <p>The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.</p> |
| 1     | 1–3   | <p>Knowledge is limited and may lack accuracy and detail.</p> <p>Application of breadth or depth of knowledge is likely to be limited or not evident.</p> <p>There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.</p> <p>Relevant terminology used only very occasionally.</p> <p>The answer often lacks substantiated reasoning, clarity, structure and/or focus.</p>                            |
|       | 0     | No relevant content.                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**Possible content may include:**

**AO1 Knowledge of type I and type IIx muscle fibres and methods of ATP generation**

- Type IIx muscles fibres are known as fast glycolytic muscle fibres.
- They have the following characteristics to aid with ATP generation:
  - High PC stores
  - High glycogen stores
  - High level of ATPase / glycolytic enzymes.
- Fast twitch (type IIx) muscle fibres generate ATP via the ATP-PC and anaerobic glycolytic energy systems.
- Type I muscle fibres are known as slow oxidative muscle fibres.
- They have the following characteristics to aid with ATP generation:
  - High mitochondrial density
  - High myoglobin levels
  - High triglyceride stores.
- Slow twitch (type I) muscle fibres generate ATP via the aerobic energy system.

*Credit any correct knowledge of type I and type IIx muscle fibres even if not linked to ATP generation eg type IIX have a large muscle fibre diameter.*

**AO2 Application of the functional characteristics of muscle fibres to methods of ATP generation and named athletic events**

**Fast twitch (type IIx)**

- Used in 100 / 200 / 400m sprints OR any field event.
- As race is completed in less than 3 minutes so ATP can be generated by the ATP-PC and anaerobic glycolytic systems.
- High anaerobic capacity means they produce the highest speed and force of contraction allowing the sprinter to complete the race in the fastest possible time.

**Slow twitch (type I)**

- Used in anything from 1500m to a marathon.
- As races lasts much longer than 3 minutes so the majority of ATP must be generated by the aerobic energy system.
- High aerobic capacity / low fatiguability allow the runner to maintain a higher average speed resulting in a faster time.

**AO3 Analysis of how the differences in ATP generation between fast twitch (type IIx) and slow twitch (type I) muscle fibres make them better suited to different named athletic events**

**Fast twitch (type IIx)**

- High PC stores increase the available fuel for the ATP-PC energy system. This is beneficial for a 200 m sprinter as ATP is resynthesised more quickly allowing the sprinter to maintain a higher speed throughout the race.
- High glycogen stores provide a source of fuel for the anaerobic glycolytic energy system. This allows the 200 m runner to maintain a rapid level of ATP resynthesis even once PC stores have been depleted.
- High levels of ATPase allow type IIx muscle fibres to break down ATP more quickly allowing faster movements such as those required to sprint quickly in the 200 m.

**Slow twitch (type I)**

- High mitochondrial density provides more sites for aerobic ATP resynthesis allowing the marathon runner to maintain higher pace for longer without fatiguing.
- High myoglobin levels will transport and store more oxygen in the muscle. This is required for the complete aerobic breakdown of glucose and fats allowing the marathon runner to resynthesise more ATP without producing lactic acid.
- High triglyceride stores can be used by the marathon runner during lower intensity periods of the race. This will preserve glycogen stores, so they are able to work at higher intensities when required eg hill climb, sprint finish.

Accept any other appropriate analysis of how the differences in ATP generation between fast glycolytic (type IIx) and slow twitch (type I) muscle fibres make them suitable for two athletics events, with reference to the structural and functional characteristic of the muscle fibres.

**Maximum 15 marks**

## Section B

### Skill acquisition

0 8

Which **one** of the following immediately follows the effector mechanisms in Whiting's information processing model?

[1 mark]

**Marks for this question: AO1 = 1**

**B** – Muscular system output data

0 9

**Figure 1** shows a swimmer performing a start in a race.

Which **one** of the following options shows the correct classifications for a start in a swimming race?

[1 mark]

**Marks for this question: AO2 = 1**

**B** – High organisation and discrete

1 0 . 1

The DCR process takes place during the first stage of the general information processing model.

Name the first stage of the general information processing model.

[1 mark]

**Marks for this question: AO1 = 1**

- Input. (1)

**Maximum 1 mark**

1 0 . 2

Describe each stage of the DCR process.

[3 marks]

**Marks for this question: AO1 = 3**

- (Detection) The performer detects a stimulus. (1)
- (Comparison) The stimulus is compared to those stored in the memory / past experiences. (1)
- (Recognition) The performer recognises which stimuli are relevant / what response is required. (1)

Accept any other relevant description of each stage of the DCR process.

**Maximum 3 marks**

**1 1**

Explain how **different** strategies would allow a performer to overcome the following causes of a learning plateau:

- fatigue
- boredom
- lack of motivation.

**[3 marks]**

**Marks for this question: AO2 = 3**

**Fatigue (sub max 1 mark):**

- Rest **to** allow the performer to recover. (1)
- Take regular breaks **to** restore energy levels. (1)

**Boredom (sub max 1 mark):**

- Vary practice **to** make training more enjoyable. (1)
- Change the coach **so** new ideas are brought to training sessions. (1)

**Lack of motivation (sub max 1 mark):**

- Set new goals **so** that the performer has something more challenging to aim for. (1)
- Offer rewards / incentives **so** the performer will work harder. (1)

Accept any other appropriate explanation of how **different** strategies would allow a performer to overcome the following causes of a learning plateau:

- fatigue
- boredom
- lack of motivation.

**Maximum 3 marks**

**1 2**

Evaluate whether whole–part–whole is the most effective method of practice for developing a gymnastics floor routine.

Refer to the stages of learning throughout your answer.

**[3 marks]**

**Marks for this question: AO3 = 3**

**Most effective (sub max 2)**

- Associative / autonomous gymnasts can maintain the kinesthesia / fluency of the routine. (1)
- Associative / autonomous gymnasts can isolate / work on their main weaknesses. (1)

**Not most effective (sub max 2)**

- Cognitive gymnasts may not be able to perform the whole routine / suffer from cognitive overload. (1)
- Cognitive / associative gymnasts may have several weaknesses / find it hard to identify a single weakness. (1)
- May be dangerous for a cognitive gymnast to performer the whole routine. (1)
- Slow / not a time efficient way for autonomous gymnasts to train. (1)
- Progressive part practice may be a more effective method for a cognitive gymnast. (1)
- Whole practice may be a more effective method for an autonomous performer. (1)

Accept any other appropriate evaluation of whether whole–part–whole is the most effective method for developing a gymnastics routine with reference to stages of learning.

**Maximum 3 marks**

**1 3**

Evaluate whether operant conditioning or insight learning would be most effective when coaching passing in a team sport.

**[8 marks]**

**Marks for this question: AO1 = 2, AO2 = 3, AO3 = 3**

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

| Level | Marks | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 7–8   | Knowledge is consistently accurate and well detailed.<br>Application of breadth or depth of knowledge is clearly evident.<br>Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.<br>Relevant terminology is consistently used.<br>The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.              |
| 3     | 5–6   | Knowledge is usually accurate and detailed.<br>Application of breadth or depth of knowledge is often evident.<br>Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.<br>Relevant terminology is often used.<br>The answer usually demonstrates substantiated reasoning, clarity, structure and focus.                                    |
| 2     | 3–4   | Knowledge is sometimes accurate with some detail.<br>Application of breadth or depth of knowledge is sometimes evident.<br>Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence.<br>Relevant terminology is sometimes used.<br>The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus. |
| 1     | 1–2   | Knowledge may be limited.<br>Application of breadth or depth of knowledge may be limited or not evident.<br>There may be little or no analysis and/or evaluation between different relevant factors and their impact.<br>Relevant terminology is occasionally used.<br>The answer may lack substantiated reasoning, clarity, structure and focus.                                                           |
|       | 0     | No relevant content.                                                                                                                                                                                                                                                                                                                                                                                        |

**Possible content may include:**

**AO1 Knowledge of operant conditioning and insight learning**

**Operant conditioning (Skinner):**

- Learning through trial and error.
- Involves shaping behaviour and manipulating the environment.
- The coach can strengthen the SR bond using positive reinforcement and negative reinforcement.
- The SR bond can be broken using punishment.

**Insight learning (Gestalt):**

- Learning a skill as a whole, through problem solving / discovery.
- Coach use questioning to develop understanding.
- This allows skills to be adapted and transferred to competitive situations.

**AO2 Application of operant conditioning and insight learning to passing in a team sport**

**Operant conditioning**

- Performer placed in situations where the desired pass occurs eg forced to pass over a tall opponent.
- When a performer completes a correct pass the coach of the team would use positive reinforcement or negative reinforcement to strengthen the SR bond.
- Positive reinforcement may take the form of praise eg saying 'well done' when the pass is successful.
- Negative reinforcement may be stopping criticising the player when the pass is successful.
- If the skill is repeatedly performed incorrectly the coach may use punishment to break the SR bond.
- This may take the form of additional work such as laps of the pitch.

**Insight learning**

- Performer placed in situations where the type of pass required varies.
- They will be encouraged to evaluate the specifics of the situation and decide on an appropriate pass.
- Coach asks questions to the performer eg why do you need to step into the pass?
- Rather than simply complete a pass because they have been conditioned or trained to do so.

**AO3 Evaluation of whether operant conditioning or insight learning would be most effective when coaching passing in a team sport**

- Insight learning would be more effective when teaching passing in a team sport to more advanced / associative / autonomous players.
- Insight learning develops greater understanding of relationship between sub-routines / timing so players will be able to modify / adapt their passing in new situation / games.
- Insight learning encourages creativity/decision making which increases motivation of more advanced players meaning they will focus harder and practice more.
- Insight learning can be time consuming as players struggle to solve the problem, resulting in them becoming demotivated.
- However operant conditioning may be more appropriate with very young/cognitive players.
- Simple trial and error practices may provide enough challenge for these players who are still developing basic motor programmes.
- Limited feedback may be all they can understand with the focus on positive reinforcement when skill performed correctly to maintain motivation.
- The punishment used in operant conditioning may be demotivating for performers especially those in the cognitive stage where errors are high.

Accept any other appropriate evaluation of whether operant conditioning or insight learning would be most effective when coaching passing in a team sport.

**Maximum 8 marks**

|          |          |                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>4</b> | <p>Goalkeepers in several sports need a fast response time to make a save.</p> <p>Evaluate how effective the following are for improving the response time of a goalkeeper:</p> <ul style="list-style-type: none"> <li>• development of selective attention</li> <li>• speed agility quickness (SAQ) training</li> <li>• caffeine supplementation.</li> </ul> <p style="text-align: right;"><b>[15 marks]</b></p> |
|----------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Marks for this question: AO1 = 4, AO2 = 5, AO3 = 6**

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

| Level | Marks | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------|-------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5     | 13–15 | <p>Knowledge is consistently comprehensive, accurate and well detailed.</p> <p>Application of breadth or depth of knowledge is clearly evident.</p> <p>Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.</p> <p>Relevant terminology is almost always used.</p> <p>The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.</p>                          |
| 4     | 10–12 | <p>Knowledge is usually comprehensive, accurate and detailed.</p> <p>Application of breadth or depth of knowledge is often evident.</p> <p>Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent.</p> <p>Relevant terminology is usually used.</p> <p>The answer usually demonstrates substantiated reasoning, clarity, structure and focus.</p>                                                 |
| 3     | 7–9   | <p>Knowledge is generally accurate and sometimes detailed.</p> <p>Application of breadth or depth of knowledge is sometimes evident.</p> <p>Some analysis and/or evaluation is made between different relevant factors and their impact but may sometimes lack coherence.</p> <p>Relevant terminology is used but may sometimes be missing.</p> <p>The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.</p>                  |
| 2     | 4–6   | <p>Knowledge is sometimes accurate but may lack detail.</p> <p>Application of breadth or depth of knowledge is occasionally evident.</p> <p>Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence.</p> <p>Relevant terminology is occasionally used.</p> <p>The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times.</p> |
| 1     | 1–3   | <p>Knowledge is limited and may lack accuracy and detail.</p> <p>Application of breadth or depth of knowledge is likely to be limited or not evident.</p> <p>There may be very little or no analysis and/or evaluation made between different relevant factors and their impact.</p> <p>Relevant terminology used only very occasionally.</p> <p>The answer often lacks substantiated reasoning, clarity, structure and/or focus.</p>                            |
|       | 0     | No relevant content.                                                                                                                                                                                                                                                                                                                                                                                                                                             |

**Possible content may include:**

**AO1 Knowledge of response time, selective attention, SAQ training, and supplementation**

- Response time = reaction time + movement time.
- Selective attention is ability to focus on relevant stimuli and ignore irrelevant stimuli.
- Speed agility quickness (SAQ) training involves dynamic movements / changing direction at speed / ladder drills etc.
- Caffeine is a stimulant which increases mental alertness.

**AO2 Application of development of selective attention, SAQ training, and caffeine supplementation to response time**

- Selective attention of a goalkeeper could be improved by making the ball a brighter colour / highlighting relevant stimuli eg the ball / training with distractions such as additional attackers.
- Improving selective attention would allow the reaction time of the goalkeeper to improve.
- SAQ training could be used to improve the speed of the goalkeeper's movements by making them perform multiple saves in different positions in the goal / including ladder footwork drill before saves etc.
- This improves the movement time of the goalkeeper.
- Use of caffeine supplementation before performance could be used to improve the alertness of the goalkeeper helping them maintain focus on relevant stimuli eg the ball.
- Caffeine would improve the reaction time of the goalkeeper.

**AO3 Evaluation of the effectiveness of the following for improving the response time of a goalkeeper:**

- **Development of selective attention**
- **Speed agility quickness (SAQ) training**
- **Caffeine supplementation.**

**Development of selective attention**

- Developing the selective attention of the goalkeeper would be beneficial as it would allow the goalkeeper to ignore distractions eg the crowd and focus on the most relevant stimuli eg the ball.
- This would allow the goalkeeper to decrease their reaction time by anticipating what will happen next.
- However as improving selective attention only develops reaction time, they would still need the ability to move quickly to prevent the opposition from scoring.

**Speed agility quickness (SAQ) training**

- Using speed agility quickness (SAQ) training in training would develop the goalkeepers motor abilities to perform movements more quickly.
- This would allow them to move more quickly, increasing the likelihood they will make a save.
- As SAQ only improves the goalkeeper's motor abilities they are still required to make accurate decisions first about where and when to move.

**Caffeine supplementation**

- Caffeine would increase the goalkeeper's focus allowing them to react more quickly to actions of the opposing attackers.
- However, the effects of caffeine would wear off so additional caffeine would need to be consumed during the game.
- Over consumption of caffeine could also have negative effects on performance by causing stomach problems / headaches / dehydration / irritability.

Accept any other appropriate evaluation of the effectiveness of the following for improving the response time of a goalkeeper:

- development of selective attention
- SAQ training
- caffeine supplementation.

**Maximum 15 marks**

### Section C

#### Sport and society

**1 5**

Sport is one of the components of the Golden Triangle.

Which are the other two components?

**[1 mark]**

**Marks for this question: AO1 = 1**

**A** – Commercialisation and the media

**1 6**

Which **one** of the following is a characteristic of rational recreation?

**[1 mark]**

**Marks for this question: AO1 = 1**

**A** – Codified

**1 7 . 1**

Sport England works with national partners to increase participation at grass roots level.

Name **two** national partners of Sport England.

**[2 marks]**

**Marks for this question: AO1 = 2**

- National governing bodies / any named national governing body eg FA, LTA, RFU. (1)
- English Federation of Disability Sport / Activity Alliance. (1)
- Women in Sport. (1)
- Sporting Equals. (1)
- Sports Aid. (1)
- Street Games. (1)
- UK Sport. (1)
- Youth Sport Trust (YST). (1)

Accept any other appropriate national partner of Sport England.

**Maximum 2 marks**

|          |          |          |                                                                                                                                                                                                                           |
|----------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>7</b> | <b>2</b> | <p>Sport England also works with local partners, such as Active Partnerships, to achieve its aims.</p> <p>Identify <b>two</b> services provided by these partners.</p> <p style="text-align: right;"><b>[2 marks]</b></p> |
|----------|----------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Marks for this question: AO1 = 2**

- Clubs / club development / provide better clubs. (1)
- Coaching / coach development / provide better coaches / more coaches. (1)
- Education programmes. (1)
- Equality. (1)
- Equipment. (1)
- Targeted campaigns (eg workplace movement / school games). (1)
- Organise competitions. (1)
- Facilities / facility development / provide more / better facilities. (1)
- Funding. (1)
- Marketing / communication. (1)
- Safeguarding. (1)
- Networking. (1)
- Volunteer development. (1)

Accept any other appropriate services provided by local partners.

**Maximum 2 marks**

|          |          |                                                                                                                                                                                                                                                                                                                                                          |
|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>1</b> | <b>8</b> | <p>The role of women in sport changed during the industrial and post-industrial period (1780–1900). One change was that participation increased as more sports were viewed as suitable.</p> <p>Explain why lawn tennis was deemed to be a suitable activity for women to play during this period.</p> <p style="text-align: right;"><b>[3 marks]</b></p> |
|----------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Marks for this question: AO2 = 3**

- Mixed sport **so** females were able to participate as part of social gatherings / with family. (1)
- Played in gardens / private clubs **so** women could take part in private. (1)
- Not vigorous **so** women could participate in modest dress. (1)
- Didn't sweat **so** was deemed ladylike / not deemed unladylike. (1)
- Female role models emerged **who** broke down stereotypes. (1)

*To be credited a response must link a characteristic of lawn tennis to a reason why this made it suitable for women. Characteristics and explanation are **NOT** exclusively linked.*

*Only credit any given characteristic and / or explanation once.*

Accept any other appropriate explanation of why lawn tennis was deemed to be a suitable activity for women to play during this period.

**Maximum 3 marks**

|   |   |
|---|---|
| 1 | 9 |
|---|---|

‘Sport is a powerful force for bringing about social change.’

Evaluate this statement.

**[3 marks]**

**Marks for this question: AO3 = 3**

**For (sub max 2)**

- Sport has a large audience **which** allows it to highlight key issues in society. (1)
- Sport provides examples of people breaking down barriers / defying stereotypes **which** inspires others to follow. (1)
- Sport produces role models **which** can influence the behaviour of those who look up to them. (1)
- Money from sport can be channelled into programmes / initiatives **which** are designed to bring about social change. (1)
- Sport can provide a positive use of leisure time **which** can reduce crime / deviant behaviour in society. (1)
- Sport provides opportunities **which** can boost social mobility. (1)
- Sport promotes values eg tolerance / respect **which** are then spread through society. (1)
- Sporting event / success can unite people **which** develops a sense of community in specific populations. (1)
- Sport improves people’s health **which** reduces the strain on NHS / public services. (1)

**Against (Sub max 2)**

- Many of society’s major issues are still reflected in sport today **which** further embeds them in society. (1)
- For some issues the rate of change in society has been slow **which** suggested sport has a limited impact. (1)
- Not everyone is interested in sport **which** means messages can fail to spread / reach the whole population. (1)
- Sport has limited power to embed social change **which** means support from government / legislation is required. (1)

Accept any other appropriate evaluation of the statement: ‘Sport is a powerful force for bringing about social change.’

**Maximum 3 marks**

|          |          |                                                                                                                                                                                                                                                                                |
|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2</b> | <b>0</b> | <p>National governing bodies were developed in the industrial and post-industrial period (1780–1900).</p> <p>Analyse how the formation of the national governing body for athletics improved the standard of the sport.</p> <p style="text-align: right;"><b>[8 marks]</b></p> |
|----------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Marks for this question: AO1 = 2, AO2 = 3, AO3 = 3**

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

| Level | Marks | Description                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------|-------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4     | 7–8   | <p>Knowledge is consistently accurate and well detailed.</p> <p>Application of breadth or depth of knowledge is clearly evident.</p> <p>Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact.</p> <p>Relevant terminology is consistently used.</p> <p>The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.</p>             |
| 3     | 5–6   | <p>Knowledge is usually accurate and detailed.</p> <p>Application of breadth or depth of knowledge is often evident.</p> <p>Analysis and/or evaluation is often made between different relevant factors and their impact and is usually coherent.</p> <p>Relevant terminology is often used.</p> <p>The answer usually demonstrates substantiated reasoning, clarity, structure and focus.</p>                                    |
| 2     | 3–4   | <p>Knowledge is sometimes accurate with some detail.</p> <p>Application of breadth or depth of knowledge is sometimes evident.</p> <p>Analysis and/or evaluation is sometimes made between different relevant factors and their impact but may lack coherence.</p> <p>Relevant terminology is sometimes used.</p> <p>The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.</p> |
| 1     | 1–2   | <p>Knowledge may be limited.</p> <p>Application of breadth or depth of knowledge may be limited or not evident.</p> <p>There may be little or no analysis and/or evaluation between different relevant factors and their impact.</p> <p>Relevant terminology is occasionally used.</p> <p>The answer may lack substantiated reasoning, clarity, structure and focus.</p>                                                          |
|       | 0     | No relevant content.                                                                                                                                                                                                                                                                                                                                                                                                              |

**Possible content may include:**

**AO1 Knowledge of national governing bodies**

- ‘Old boys’ / Blues / Public school boys left schools/universities and wanted to continue playing their sports.
- Middle classes wanted control / moral force in society and as part of this formed NGBs.
- Increasing popularity of sport /development of travel created the need for organisation.

**AO2 Application to athletics**

- Amateur Athletics Association (AAA) was created to oversee the sport (1880).
- The AAA (alongside other associations eg Amateur Athletics Club from 1866) codified the sport of athletics.
- Structured competition for men started with AAA championships (1880).
- The AAA rules prevented some professions eg manual labourers from competing by use of an ‘exclusion clause’. This meant participation was predominantly by upper/middle classes.
- International fixtures began with Athletics included in the first modern Olympic Games (1896).

**AO3 Analysis of how the formation of the national governing body for athletics improved the standard of the sport**

- The introduction of codified rules meant that fixtures/events could take place across the country increasing the standard of competition.
- International fixtures further increased the standard by bringing together the best athletes to compete against each other.
- The introduction of high-profile events inspired more people to take part, creating a larger talent pool.
- The AAA worked with local clubs / associations to spread the word about athletics. These associations ran local competitions and provided the framework for new clubs / events.

Accept any other appropriate analysis of how the development of national governing bodies improved the standard of athletics.

**Maximum 8 marks**

**2 1**

**Table 2** shows the total prize money available in each of four men's and women's football world cups.

Evaluate the impact that the factors affecting the emergence of elite female performers have had on:

- the prize money available in the Women's World Cup
- the gap between the prize money in the men's and women's world cups.

**[15 marks]**

**Marks for this question: AO1 = 4, AO2 = 5, AO3 = 6**

Students are expected to answer in continuous prose, use good English, organise information clearly and use specialist vocabulary where appropriate.

| Level | Marks | Description                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-------|-------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5     | 13–15 | Knowledge is consistently comprehensive, accurate and well detailed. Application of breadth or depth of knowledge is clearly evident. Analysis and/or evaluation is coherently and consistently made between different relevant factors and their impact. Relevant terminology is almost always used. The answer demonstrates a high level of substantiated reasoning, clarity, structure and focus.                          |
| 4     | 10–12 | Knowledge is usually comprehensive, accurate and detailed. Application of breadth or depth of knowledge is often evident. Analysis and/or evaluation is often made between different relevant factors and their impact, and is usually coherent. Relevant terminology is usually used. The answer usually demonstrates substantiated reasoning, clarity, structure and focus.                                                 |
| 3     | 7–9   | Knowledge is generally accurate and sometimes detailed. Application of breadth or depth of knowledge is sometimes evident. Some analysis and/or evaluation is made between different relevant factors and their impact but may sometimes lack coherence. Relevant terminology is used but may sometimes be missing. The answer sometimes demonstrates substantiated reasoning, clarity, structure and focus.                  |
| 2     | 4–6   | Knowledge is sometimes accurate but may lack detail. Application of breadth or depth of knowledge is occasionally evident. Some analysis and/or evaluation is attempted between different relevant factors and their impact, but is likely to lack coherence. Relevant terminology is occasionally used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and/or focus at times. |
| 1     | 1–3   | Knowledge is limited and may lack accuracy and detail. Application of breadth or depth of knowledge is likely to be limited or not evident. There may be very little or no analysis and/or evaluation made between different relevant factors and their impact. Relevant terminology used only very occasionally. The answer often lacks substantiated reasoning, clarity, structure and/or focus.                            |
|       | 0     | No relevant content.                                                                                                                                                                                                                                                                                                                                                                                                          |

**Possible content may include:**

**AO1 Knowledge of the factors affecting the emergence of elite female performers**

- Equal opportunities / stereotyping / discrimination.
- Media coverage / role models.
- Funding / support.
- Access / provision.
- Education / targeted programmes.

**AO2 Application of the factors affecting the emergence of elite performers to football / Women's World Cup**

- Women's football has become increasingly socially accepted / via targeted programmes eg Let Girls Play.
- In 2023 WWC FIFA paid all players a minimum wage for participation.
- Increased media coverage of women's football / more games shown live on TV / women's football included in popular computer games.
- Increased number of female footballers are viewed as role models.
- FA / UEFA / FIFA all putting more money into funding the women's game.
- Majority of top Premier league clubs are now funding professional women's teams.
- WSL is now fully professional.
- Increase in prize money for Women's World Cup.
- Gap to the men's prize money is closing.
- Prize money gap remains large compared to men.

**AO3 Evaluation of the impact that the factors affecting the emergence of elite female performers have had on prize money in the Women's World Cup and the gap between the prize money in the men's and women's world cups**

**Increase in prize money for Women's World Cup.**

**Gap to the men's prize money is closing.**

- (Women's football has become increasingly socially accepted) increasing participation / the demand for the sport which is breaking down stereotypes.
- (Increased media coverage of women's football / more games shown live on TV / women's football included in popular computer games) results in greater commercialisation resulting in more prize money.
- Increase in media coverage has come since success at Euros and recent WWC making role models more visible so rise in endorsements / sponsorship / money in the women's game.
- (FA / UEFA / FIFA all putting more money into funding the women's game) this includes increased prize money in major competitions.
- (Majority of top Premier league clubs are now funding professional women's teams) which increases the standard / marketability / support available.
- (Increases in clubs / competitions / professionalism / talent pool has resulted in the standard of elite women's football improving) which makes the game more appealing to fans and sponsors / more easily commercialised.

**Prize money gap remains large compared to men**

- Despite progress there is still a view that women's football is inferior / pay can be much less even in situations where they are more successful than their male counterparts.
- Despite increase in media coverage games are often harder to find eg shown on secondary channels, online, or as highlights late at night.
- Lower media coverage also means that role models are also far less visible meaning less endorsements / sponsorship / money in the women's game.
- Despite the support of NGBs and big clubs, budgets are only a fraction of those in the men's game.
- Less media coverage also results in much lower income from TV rights and sponsorships.
- Initially (pre-2022) despite professionalisation of the WSL it was still hard to make a living out of women's football.

Accept any other appropriate evaluation of the impact the factors affecting the emergence of elite female performers have had on:

- the prize money available in the Women's World Cup
- the gap between the prize money in the men's and women's world cups.

**Maximum 15 marks**