



A-level PHYSICAL EDUCATION 7582/1

Paper 1 Factors affecting participation in physical activity and sport

Mark scheme

June 2023

Version: 1.0 Final



2 3 6 A 7 5 8 2 / 1 / M S

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.

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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 lung volume will be **lower** during exercise than at rest?

[1 mark]

Marks for this question: AO1 = 1

A – Inspiratory reserve volume

0 2

Figure 1 shows an athlete performing a squat.

Which one of the following best describes the action of the quadriceps muscle group between position **A** and position **B**?

[1 mark]

Marks for this question: AO2 = 1

B – Contracting eccentrically

0 3

Figure 2 shows a badminton player in two different positions as they prepare to hit a shot.

Complete **Table 1** for the movement at the left hip as the badminton player moves from position **A** to position **B**.

[4 marks]

Marks for this question: AO1 = 2, AO2 = 2

Articulating bones	Pelvis and femur (AO1 = 1)
Type of joint	Ball and socket (AO1 = 1)
Plane	Frontal (AO2 = 1)
Axis	Sagittal (AO2 = 1)

Accept any other appropriate articulating bones.

0	4
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Describe the role of the sympathetic and parasympathetic nervous systems in the regulation of heart rate.

[3 marks]

Marks for this question: AO1 = 3

- Medulla/cardiac control centre sends impulse to the Sino-atrial node (SAN)/pacemaker. (1)
- Sympathetic nervous system increases heart rate. (1)
- Sympathetic impulses travel down the sympathetic/accelerator nerve. (1)
- Parasympathetic nervous system decreases heart rate. (1)
- Parasympathetic nervous systems travel down the vagus nerve. (1)

Accept any other appropriate description the role of the sympathetic and parasympathetic nervous systems in the regulation of heart rate.

Maximum 3 marks

0	5
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An amateur boxing match consists of three rounds. Each round lasts 3 minutes. There is a 1-minute break between each round.

Analyse the role of excess post-exercise oxygen consumption (EPOC) during the match **and** its impact on the performance of the boxer as the rounds progress.

[3 marks]

Marks for this question: AO3 = 3

- EPOC will occur during breaks to repay oxygen debt/as they have worked anaerobically. (1)
- (Fast/alactic component) Some ATP/PC will be resynthesised allowing the boxer to perform explosively/anaerobically/at high intensity in subsequent rounds. (1)
- PC stores will not be fully resynthesised resulting in the increased use of the anaerobic glycolytic system/production of lactic acid/fatigue. (1)
- Some re-saturation of myoglobin with oxygen will delay the build-up of lactic acid/fatigue. (1)
- (Slow/lactic component) Not enough time/oxygen to remove lactic acid so it will build up causing fatigue/decreased performance. (1)

Accept any other appropriate analysis of the role of excess post-exercise oxygen consumption during the match and its impact on the performance of the boxer as the rounds progress.

Maximum 3 marks

0 6	<p>Evaluate which of the following training methods would have the greatest positive impact on the energy systems an elite road cyclist uses in a race:</p> <ul style="list-style-type: none"> • altitude training • high intensity interval training (HIIT). <p style="text-align: right;">[8 marks]</p>
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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. 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 consistently used. The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.</p>
3	5–6	<p>Knowledge is usually 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 often used. The answer usually demonstrates substantiated reasoning, clarity, structure and focus.</p>
2	3–4	<p>Knowledge is sometimes accurate with some detail. Application of breadth or depth of knowledge is sometimes evident. Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence. Relevant terminology is sometimes used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.</p>
1	1–2	<p>Knowledge may be limited. Application of breadth or depth of knowledge may be limited or not evident. There may be little or no analysis and/or evaluation between different relevant factors and their impact. Relevant terminology is occasionally used. The answer may lack substantiated reasoning, clarity, structure and focus.</p>
	0	No relevant content.

Possible content may include:

AO1 Knowledge of altitude training and high intensity interval training (HIIT)

Altitude training

- Involves working above 1500 m/5000 feet.
- Results in a natural increase in levels of EPO/red blood cells.
- This improves the aerobic energy system.

High intensity interval training (HIIT)

- Mixture of high intensity/anaerobic periods of work and low intensity/aerobic recovery intervals.
- Primarily develops the anaerobic energy systems/ATP-PC/anaerobic glycolytic system.
- Also improves the aerobic energy system.

AO2 Application of the energy systems developed by each specialist training method to an elite road cyclist in a race

Altitude training develops the aerobic energy system

- The cyclist will use their aerobic energy system to cycle for long periods of time without fatiguing.
- They will also use it to recover from any intense efforts eg hill climbs.

High intensity interval training (HIIT) primarily develops the anaerobic energy systems

- The cyclist will use their ATP-PC system to cycle at maximum speeds eg sprinting.
- Their anaerobic glycolytic system would be used to maintain a high intensity effort eg a hill climb.

AO3 Evaluation of which training method would have the greatest positive impact on the energy systems an elite road cyclist uses in a race

Altitude training would have the greatest positive impact

- Road cycling races are long and the aerobic energy system will be the body's primary means of ATP resynthesis.
- This would allow them to maintain the same/higher average speeds as others in the race/allowing them to finish in a fast time.
- Improvements in the cyclist's aerobic energy system would also allow them to recover quickly between high intensity efforts allowing them to repeatedly climb hills without undue fatigue.
- As lactate threshold is a percentage of VO_2 max improving their VO_2 max would mean the cyclist could work harder before their anaerobic energy system was required.

High intensity interval training (HIIT) would have the greatest positive impact

- HIIT training mirrors the demands of road cycling races involving periods of high intensity/anaerobic work eg climbing hills, followed by aerobic recovery on the downhill sections.
- HIIT training would improve both aerobic and anaerobic energy systems without the negative impact of travel/cost/time associated with altitude training.
- An improved ATP-PC energy system would allow the cyclist to sprint faster at the end of the race which at an elite level is often the difference between winning and losing.
- An improved anaerobic glycolytic energy system would allow the cyclist to buffer lactic acid more effectively and maintain a higher intensity during hill climbs improving their average speed.
- A combination of both training methods may be best as this would target all of the energy systems required by a road cyclist.

Accept any other appropriate evaluation of which of the following training methods would have the greatest positive impact on the energy systems an elite road cyclist uses in a race:

- altitude training
- high intensity interval training (HIIT).

Maximum 8 marks

0	7	<p>Table 2 shows the difference in physiological measures between two 30-year-old 1500 m runners.</p> <p>Evaluate whether the data in Table 2 could be used to predict the VO₂ max of each runner and which runner would win a 1500 m race.</p> <p style="text-align: right;">[15 marks]</p>
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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 physiological measures**

- **Max cardiac output:** The maximum amount of blood that can be ejected from the heart (left ventricle) in one minute.
- Calculated as maximum stroke volume x maximum heart rate.
- **Max A-VO₂ diff:** The largest difference between the oxygen content of the arteries and veins. This indicates how much oxygen the performer is able to extract at the muscle site.
- **Slow oxidative muscle fibre %:** Small motor neuron size; low contraction force; slow conductivity; slow contraction speed; high mitochondrial density; high capillary density; low glycogen stores; high triglyceride stores; high myoglobin content; low fatigability.
- **VO₂max:** Maximum volume of oxygen which can be used/consumed/utilised by the body per minute/unit of time (ml/kg/min).

AO2 Application of the physiological measure to each runner's VO₂ max/aerobic power

- All three measure are specifically related to a runner's VO₂ max/aerobic power.
- Runner B will have a higher VO₂ max/aerobic power.
- As both runners are the same age max heart rate will be similar/the same so difference in max cardiac output due to higher max stroke volume of runner B.
- This will be due to cardiac hypertrophy and a stronger heart muscle being able to eject more blood from the heart/higher ejection fraction.
- This means more oxygenated blood will be circulating around runner B's body and arriving at the muscle site.
- Runner B can extract a greater percentage of the oxygen in his blood evidenced by their higher max A-VO₂ diff total.
- Runner B will be able to extract more oxygen, in part, due to their higher percentage of slow twitch muscles which have higher myoglobin levels.
- The oxygen which does reach the muscle site will be more efficiently used to produce ATP due to the higher concentration of mitochondria and aerobic enzymes present in runner B's muscle fibres.

AO3 Evaluation of whether the data in Table 2 could be used to predict the winner of a 1500m race between Runner A and Runner B

- Runner B's higher VO₂ max will be an advantage in a 1500 m race as it will allow the runner to use more oxygen per minute than runner A.
- A 1500 m race lasts for more than three minutes so the aerobic energy system is an important source of ATP resynthesis/VO₂ max is an important indicator of success over 1500 m.
- Having a higher VO₂ max means that Runner B will be able to run at faster speeds for longer periods of time while remaining below his anaerobic threshold/without fatiguing/as higher VO₂ max will increase their lactate threshold.
- However, the data in the table gives no indication of anaerobic capacity/lactate threshold.
- Runner B might have a higher VO₂ max however runner A may run more efficiently maintaining higher speed while expending less energy.
- Runner A may have a high enough VO₂ max to stay close to Runner B over the first 1100 m then a faster kick over the final 400 m resulting in victory.
- Data also does not psychological factors of each athlete in a competitive situation. Runner B may be 'fitter' but runner A may be more willing to push themselves and endure pain thus winning the race.

Accept any other appropriate evaluation of whether the data in **Table 2** could be used to predict the VO₂ max of each runner **and** which runner would win a 1500 m race.

Maximum 15 mark

Section B**Skill acquisition****0 8**Which **one** of the following is most commonly described as trial and error learning?**[1 mark]****Marks for this question: AO1 = 1****C** – Operant conditioning**0 9****Figure 3** shows a footballer performing an overhead kick.Which **one** of the following is the correct skill classification for an overhead kick in football?**[1 mark]****Marks for this question: AO2 = 1****B** – Complex and high organisation**1 0 . 1**

Negative transfer occurs when the learning of one skill hinders the learning of another.

Outline **two** causes of negative transfer.**[2 marks]****Marks for this question: AO1 = 2**

- Performer misunderstanding the different movement requirements. (1)
- First skill hasn't been fully learnt/overlearned. (1)
- A familiar stimulus/cue requiring a new response. (1)
- Skills that seem to be performed the same way but aren't. (1)
- Conflicting skills are taught close together. (1)
- When practice environment is different to competition environment. (1)
- Poor coaching. (1)

Accept any other appropriate causes of negative transfer.

Maximum 2 marks

1 0 . 2 Describe **one** way a coach can prevent negative transfer occurring.

[1 mark]

Marks for this question: AO1 = 1

- Draw the performer's attention to the differences. (1)
- Make sure the first skill is thoroughly learned before moving on. (1)
- Avoid teaching/ performer practising skills together that might cause confusion. (1)
- Make practice sessions similar to the performance/competition situation. (1)
- Punish incorrect response/reinforce correct response. (1)

Accept any other appropriate way a coach can prevent negative transfer occurring.

Maximum 1 mark

1 1 . 1 Define the term 'psychological refractory period'.

[1 mark]

Marks for this question: AO1 = 1

Psychological refractory period: A delay when a second stimulus is presented before the first has been processed. (1)

Accept any other appropriate definition of psychological refractory period.

Maximum 1 mark

1 1 . 2 Explain why the psychological refractory period occurs.

Refer to a sporting example in your answer.

[3 marks]

Marks for this question: AO2 = 3

- The brain can only process one stimulus at a time/several stimulus in rapid succession can result in a bottleneck. (1)
- Eg a sidestep in rugby/fake in basketball/ball clipping the net in tennis. (1)
- The performer must clear the response to the first stimuli eg the player stepping to right, before they can respond to the second stimuli eg the player stepping to the left. (1)

Accept other appropriate explanation of why the psychological refractory period occurs with reference to a sporting example.

Maximum 3 marks

<table border="1"><tr><td style="padding: 2px 5px;">1</td><td style="padding: 2px 5px;">2</td></tr></table>	1	2	<p>A trampolinist is learning to perform a somersault using a harness.</p> <p>Evaluate the use of mechanical guidance for this performer.</p> <p style="text-align: right;">[3 marks]</p>
1	2		

Marks for this question: AO3 = 3

To be credited relevant advantages of mechanical guidance must be clearly linked to an appropriate impact.

The impact can be credited if relevant but different to those shown below.

A specific impact can only be credited once.

Positives (sub max 2)

- Improves confidence, so will attempt the somersault/be motivated to practice etc. (1)
- Develops kinaesthetic awareness, so they can repeat the somersault without support/develop the correct motor programme etc. (1)
- Keeps the performer safe/reduces the risk of injury, so they can continue to practice/perform many repetitions/perform without constant support etc. (1)

Negatives (sub max 2)

- Becomes over reliant on the harness, so will lack the confidence/motivation to perform without support etc. (1)
- Incorrect kinaesthetic awareness/intrinsic feedback experienced, so they don't develop the appropriate timing/feel of the movement etc. (1)

Accept other appropriate evaluation of the use of mechanical guidance for a trampolinist learning to do a somersault.

Maximum 3 marks

1	3	Tom Daley won an Olympic gold medal in diving.
		Evaluate the effectiveness of mental practice when developing a diver's performance. [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. 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 consistently used. The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.
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2	3–4	Knowledge is sometimes accurate with some detail. Application of breadth or depth of knowledge is sometimes evident. Analysis and/or evaluation is sometimes made between different relevant factors and their impact, but may lack coherence. Relevant terminology is sometimes used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.
1	1–2	Knowledge may be limited. Application of breadth or depth of knowledge may be limited or not evident. There may be little or no analysis and/or evaluation between different relevant factors and their impact. Relevant terminology is occasionally used. The answer may lack substantiated reasoning, clarity, structure and focus.
	0	No relevant content.

Possible content may include:

AO1 Knowledge of mental practice

- Mental practice involves going over the skill in the mind without movement.
- Can be internal which views performance from within the athlete.
- This focuses on how performance feels.
- Can be external which views performance from outside of the athlete (like a TV camera).
- This focuses on how performance looks.

AO2 Application of mental practice to diving

- Mental practice will help to groove/develop the motor programme of performing a specific dive.
- It can also be used to help control the diver's emotions when performing a dive increasing confidence and lowering arousal.
- Mental practice could be used to rehearse the dive away from the pool as access to diving facilities is not always possible/even when injured, which may be common in a sport such as diving.
- It can also be used during training/a warm up to prepare for a dive in competition.
- Mental practice can be used in competition immediately before a dive.

AO3 Evaluation of whether mental practice is an effective type of practice when developing a diver's performance

- Mental practice used immediately before a dive can control arousal levels – diving is a complex skill/requires high levels of precision and control, therefore, it will be best performed at lower levels of arousal.
- Using mental practice to familiarise yourself with the pressure of performing a dive will improve competitive performance.
- Mental practice may not be appropriate for cognitive performers as to be successful the diver must have the correct mental image of how to perform the dive stored in their long-term memory to rehearse it correctly.
- Mentally practicing the dive incorrectly may result in errors such as jumping out too far from the board/not pointing the toes.
- The performer must be well trained in mental practice to use it under pressure in competition as if they cannot imagine a successful dive, it may decrease confidence and increase arousal resulting in poorer performance.
- Mental practice on its own is not a substitute for physical practice so should be used in conjunction with massed/distributed/varied practice.

Other types of practice are only creditworthy in AO3 and when explicitly linked to the limitations of mental practice, as in the final bullet point.

Accept any other appropriate evaluation of the effectiveness of mental practice when developing a diver's performance.

Maximum 8 marks

1	4	<p>Figure 4 shows Whiting’s information processing model. Over arousal can impact a performer’s ability to process information effectively.</p> <p>Analyse how over arousal would impact on the information processing of a basketball player when attempting a pass.</p> <p>Refer to Whiting’s information processing model throughout your answer.</p> <p style="text-align: right;">[15 marks]</p>
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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
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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 arousal and Whiting's model of information processing

- Arousal is an energised state of readiness/level of excitement/degree of activation.
- Over arousal is where arousal is beyond the optimal level.

Stages of Whiting's model of information processing

- Input – where the stimulus arrives.
- Receptors – senses detecting the stimuli.
- Perceptual mechanisms – the stimuli are interpreted, involves the DCR process/selective attention.
- Translatory mechanisms – where a decision is made/response selection/comparison to long-term memory.
- Effector mechanisms – where the response is programmed/sent via neuromuscular system.
- Output – the response is performed.
- Feedback – information is received about the performance.

AO2 Application of Whiting's model of information processing and over arousal to a pass in basketball

Application of Whiting's Model of information processing to a pass in basketball

- Input – involves the ball, other players, and crowd noise.
- Receptors – vision detecting the position of other players/audition detecting a call from a teammate.
- Perceptual mechanisms – where the basketball player judges the position of teammates/opponents.
- Translatory mechanisms – the basketball player chooses who to pass to/type of pass.
- Effector mechanisms – muscles of the basketball player are programmed to perform the pass.
- Output – the pass is performed.
- Feedback – whether the basketball player's pass was successfully received by a teammate.

Application of over arousal to a basketball pass

- Over arousal can result in a player using the wrong type of pass.
- Over arousal can result in a player passing to the wrong player/passing to a poorly positioned player.
- Over arousal can cause the player to execute the pass poorly.

AO3 Analysis of how over arousal would impact a basketball player's information processing when attempting a pass

- Over arousal can cause the player's selective attention to be poor where the basketball player focuses on irrelevant stimuli, such as the crowd and not the position of teammates/focus is too narrow so some relevant stimuli is missed such as a team mate better placed to pass to.
- The basketball player experiences information overload, where they are unable to make an effective decision about who to pass to as they have too much information to process.
- It can lead to ineffective DCR process where the basketball player misjudges the stimuli meaning that they pass to the wrong player/do not pass to the best positioned player.
- It can result in rushed/poor decisions such as choosing the wrong option of who to pass to/passes to the player being closely marked.
- It can lead to ineffectively performed output where the execution of the pass is poor, such as passed with too much power or inaccurately.
- It can lead to ineffective use of feedback where the basketball player continues to make the same mistakes during the match/relevant feedback is ignored by the basketball player.
- Autonomous players may pass more successfully when experiencing higher levels of arousal/cognitive performers passing may decrease in accuracy as arousal increases.

Accept any other appropriate analysis of how a basketball player would process information when attempting a pass and how over arousal would impact this.

Maximum 15 marks

Section C

Sport and society

1 5

Which **one** of the following is **not** a primary focus of Sport England?

[1 mark]

Marks for this question: AO1 = 1

D – To increase the number of elite competitions

1 6

Which **one** of the following is a characteristic of real tennis **and** mob football in pre-industrial Britain (pre-1780)?

[1 mark]

Marks for this question: AO1 = 1

A – Involved wagering

1 7 . 1

Children in state schools have a different sporting experience than children in private schools.

This is one result of social stratification.

Define social stratification.

[1 mark]

Marks for this question: AO1 = 1

- Society is divided (into different levels/classes) based on wealth/status. (1)

Accept any other appropriate definition of social stratification.

Maximum 1 mark

1 7 . 2

State **three** reasons why attending a private school may improve a child's opportunities in sport.

[3 marks]

Marks for this question: AO1 = 3

Private schools may have:

- Better facilities. (1)
- Better equipment. (1)
- Specialist coaching/more staff. (1)
- High level competition. (1)
- More opportunity for foreign tours/training camps. (1)
- More time dedicated to sport. (1)
- Wider range of sports available. (1)

Accept any other appropriate reasons why attending a private school may improve a child's opportunities in sport.

Maximum 3 marks

1	8
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Laura is trying to lead a more active lifestyle. She is considering taking up jogging or playing 5-a-side football.

Explain the similarities **and** differences of benefits gained from increased participation in:

- jogging alone
- playing 5-a-side football.

[3 marks]

Marks for this question: AO2 = 3

Similarities (sub max 2)

- (Physical health) Both could decrease the risk of coronary heart disease/obesity/stroke etc (1)
- (Mental health) Both could increase serotonin/improved mood etc. (1)
- (Fitness) Both could improve aerobic fitness/cardiovascular endurance/muscular endurance etc. (1)

Differences (sub max 2)

Points must be comparative, not simply stating the characteristics of football or jogging in isolation.

Accept the reverse ie Jogging alone would improve skill less than football.

- (Fitness) Football could improve skill/coordination/agility etc more than/compared to jogging alone. (1)
- (Fitness) Football could improve anaerobic fitness/speed/power etc more than/compared to jogging alone. (1)
- (Social health) Football could improve friendships/communication skills etc more than/compared to jogging alone. (1)

Accept any other appropriate explanation of the similarities **and** differences of benefits gained from increased participation in jogging alone or playing 5-a-side football.

Maximum 3 marks

1 9

Evaluate whether primary or secondary socialisation has a greater impact on an individual's participation in sports throughout their life.

[3 marks]

Marks for this question: AO3 = 3

Primary socialisation greater impact (sub max 2)

- Primary socialisation occurs in early years so has a large impact on core values/beliefs. (1)
- Core values/beliefs created during primary socialisation will be very strong/difficult to change in later years. (1)
- Primary socialisation involves family members who you rely on to provide opportunities/support to participate in sport. (1)

Secondary socialisation greater impact (sub max 2)

- Secondary socialisation can occur over a longer period of time than primary socialisation so can change core values/beliefs. (1)
- Secondary socialisation comes from a broader range of sources which may make the messages more powerful than those coming only from immediate family. (1)
- Secondary socialisation is a result of your own choices/control regarding sports participation. (1)
- Peer pressure is a powerful force which can override primary socialisation. (1)

Accept any other appropriate evaluation of whether primary or secondary socialisation has a greater impact on an individual's participation in sports throughout their life.

Maximum 3 marks

2	0	<p>During the post-World War II period (1950 to present day) the status of elite tennis players has changed.</p> <p>Evaluate how the changing status of professionals in tennis has affected the players.</p> <p style="text-align: right;">[8 marks]</p>
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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. 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 consistently used. The answer almost always demonstrates substantiated reasoning, clarity, structure and focus.
3	5–6	Knowledge is usually 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 often used. The answer usually demonstrates substantiated reasoning, clarity, structure and focus.
2	3–4	Knowledge is sometimes accurate with some detail. Application of breadth or depth of knowledge is sometimes evident. Analysis and/or evaluation is sometimes made between different relevant factors and their impact but may lack coherence. Relevant terminology is sometimes used. The answer occasionally demonstrates substantiated reasoning, but may lack clarity, structure and focus.
1	1–2	Knowledge may be limited. Application of breadth or depth of knowledge may be limited or not evident. There may be little or no analysis and/or evaluation between different relevant factors and their impact. Relevant terminology is occasionally used. The answer may lack substantiated reasoning, clarity, structure and focus.
	0	No relevant content.

Possible content may include:

AO1 Knowledge of changing status of professionals

- Professionals are performers who are paid to play sport.
- Modern day professional can come from any class.
- Modern day professional demonstrates higher level of performance than amateur performers.

AO2 Application of the changing status of professionals to tennis

- Professional tours and tournaments established (from 1920 onwards).
- (1968) Professionals allowed to play in the tennis major tournaments such as Wimbledon or US Open/open era.
- Tennis players earn significant sums of money through prize money for winning tournaments/equal sums of money for male and female players in a number of major tournaments.
- They also receive large amounts of sponsorship/endorsements, such as Emma Raducanu and Nike.
- Tennis professionals are able to train and compete as full-time athletes.

AO3 Evaluation of the how the change in the status of professionals in tennis has affected the players.

Positives

- (Tennis players earn significant sums of money) providing financial security / improving their lifestyle.
- (Tennis players are able to train and compete as full-time athletes) leading to an increase in the standard of play.
- The quality of coaching/training facilities/equipment used by players has improved.
- The professional tennis player can have rest periods, allowing them to recover from a demanding tour.
- The players have become role models, which can help motivate players to train harder/act responsibly.

Negatives

- Players become motivated by increased financial rewards rather than playing for a love of the game.
- The physical demand on players is very high leading to more injuries/burnout.
- Players are under immense psychological pressure to play more often/perform at the highest level.
- This can lead to deviancy, such a taking performance enhancing drugs/arguing with umpires/calling medical time outs or toilet breaks unnecessarily.
- Players becoming role models can lead to an invasion of privacy.
- Sponsorship/endorsements results in an increased demand on a player's time/takes players focus away from tennis.
- Players have to travel/spend significant amount of time away from home, which can be very difficult.

Accept other appropriate evaluation of how the changing status of professionals in tennis has affected the players.

Maximum 8 marks

2	1	<p>The industrial and post-industrial period (1780–1900) saw an increase in the spread of rationalised sport throughout Britain.</p> <p>Analyse the impact of the following factors on the spread of Association Football in Britain:</p> <ul style="list-style-type: none"> • the church • local authorities • transport • communication. <p style="text-align: right;">[15 marks]</p>
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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. 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.</p>
4	10–12	<p>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.</p>
3	7–9	<p>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.</p>
2	4–6	<p>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.</p>
1	1–3	<p>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.</p>
	0	No relevant content.

Possible content may include:

AO1 Knowledge of the role of the church, local authorities, transport, and communication

- The church was highly influential in people's lives during this period/provided education/philanthropy.
- Local authorities introduced public services and facilities.
- Development of transport saw the introduction of a railway network to allow access to different parts of the country.
- Improvements in communication were in the form of the printing press/newspapers.

AO2 Application of the role of the church, local authorities, transport and communication to the spread of Association Football

- The church set up football teams/Sunday school teams such as Bolton, Aston Villa.
- The church also provided facilities, such as pitches for football.
- Local authorities provided parks where football could be played/public baths for hygiene.
- Railways allowed football fixtures to be played in further afield/over greater distances/structured competitions eg FA cup.
- Newspapers allowed for fixtures and results to be published.

AO3 Analysis of the impact of the church, local authorities, transport, and communication to the spread of Association Football

- The church saw the worth in football as a way of developing Muscular Christianity/healthy body, healthy mind/social control and encouraged parishioners to engage in football to avoid being tempted into evils such as drinking and gambling.
- Church teams entered leagues and competitions ensuring regular play and contributing to increasing the standard of play/increased popularity of football.
- Local authority provision of parks ensured that everyone had access to facilities so football could be played recreationally.
- Local authorities' provision of public baths improved hygiene which meant that working class men had better health and therefore more energy to engage in football more regularly.
- Railways led to the establishment of a national league/fixtures between home nations, which meant that the game was spread across the UK and standards of play increased.
- Railways also ensured that spectators could travel to watch matches, paying gate receipts leading the start of commercialised football.
- Newspapers saw a rise in the popularity of the sport as role models inspired participation and spectators became more knowledgeable about football.
- Improved communication meant people could follow a team, increasing spectators, leading to commercialisation and professionalism.
- Improved transport and communication helped people spread the codified rules of association football so teams played by the same rules.

Accept other appropriate analysis of the role of the church, local authorities, transport, and communication to the spread of Association Football.

Maximum 15 marks