

# Physical Education

Advanced GCE **A2 7875**

Advanced Subsidiary GCE **AS 3875**

## Combined Mark Schemes And Report on the Units

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**June 2005**

**3875/7875/MS/R/05**

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**Mark Scheme 2562**  
**June 2005**

## Section A

## Application of Anatomical and Physiological Knowledge to Improve Performance

- 1 (a) (i) Fig. 1 shows a diagram of a gymnast performing a tuck jump.

Apply your knowledge to complete the following movement analysis table.

**3 marks total (hip joint)**  
**One for each of**

1. Joint type – ball and socket
2. Articulating bones – Femur and pelvic girdle/pelvis/illium/pubis/ischium/acetabulum
3. Antagonist – gluteus maximus/bicep femoris/semimembranosus/semitendinosus

- (ii) Identify two structures of the hip joint and describe the role of each structure during physical performance.

**4 marks in total (structure/role of joint)**  
**2 marks sub max for structure**

Structure	Role
1. Description of shape of bone/ball and socket/deep socket	2. Allow wide range of movement/flexion, extension, circumduction, adduction/stability
3. Ligaments	4. Hold joint in place/give stability/join bone to bone
5. Cartilage (hyaline/articular)	6. Prevents wear and tear/friction/absorb compression
7. Muscles/tendon	8. Provide strength or support/allow greater range of movement
9. Synovial fluid	10. Lubricates/helps stabilise the joint/nourishes cartilage/rids joint of waste debris
11. Pads of fat	12. Absorb shock/protect from wear and tear
13. Bursae (sacs containing synovial fluid)	14. Helps reduce friction
15. Joint capsule/fibrous capsule	16. Stabilise joint
17. Synovial membrane	18. Secretes synovial fluid

**(b) When hitting a ball in tennis an understanding of force is important.**

**Explain how force can cause the ball to:**

**2 marks total**

**One for each of**

**(i) Move straight**

1. A force is applied through the centre of gravity/mass / the player must hit the ball through the middle (centre of gravity) of the ball.

**(ii) Spin**

2. A force is applied off centre/eccentric force/hitting a ball on the side will create spin.

**(c) It is recommended that a performer completes a warm up prior to exercise.**

**Give two effects of a warm up on the vascular system.**

**2 marks max**

1. Increased blood flow/cardiac output/Q/stroke volume
2. Which leads to increased oxygen delivery to muscle
3. Blood vessels/arteries/arterioles in muscle dilate/vasodilate/opening of pre-capillary sphincters
4. Blood vessels/arteries/arterioles to non-essential organs constrict/vasoconstriction/closing of pre-capillary sphincters
5. Redistribution of blood flow from organs to muscles/vascular shunt
6. Decrease in blood viscosity/increase in temperature
7. Vasodilation of blood vessels near skin surface to release heat
8. Oxygen dissociates from haemoglobin quicker/bohr shift
9. Increased enzyme/hormonal activity
10. Decrease in OBLA (onset of blood lactate accumulation)

**(d) During endurance activities at altitude there may be a reduction in performance.**

**Why do the changes in pressure at altitude reduce performance?**

**4 marks max**

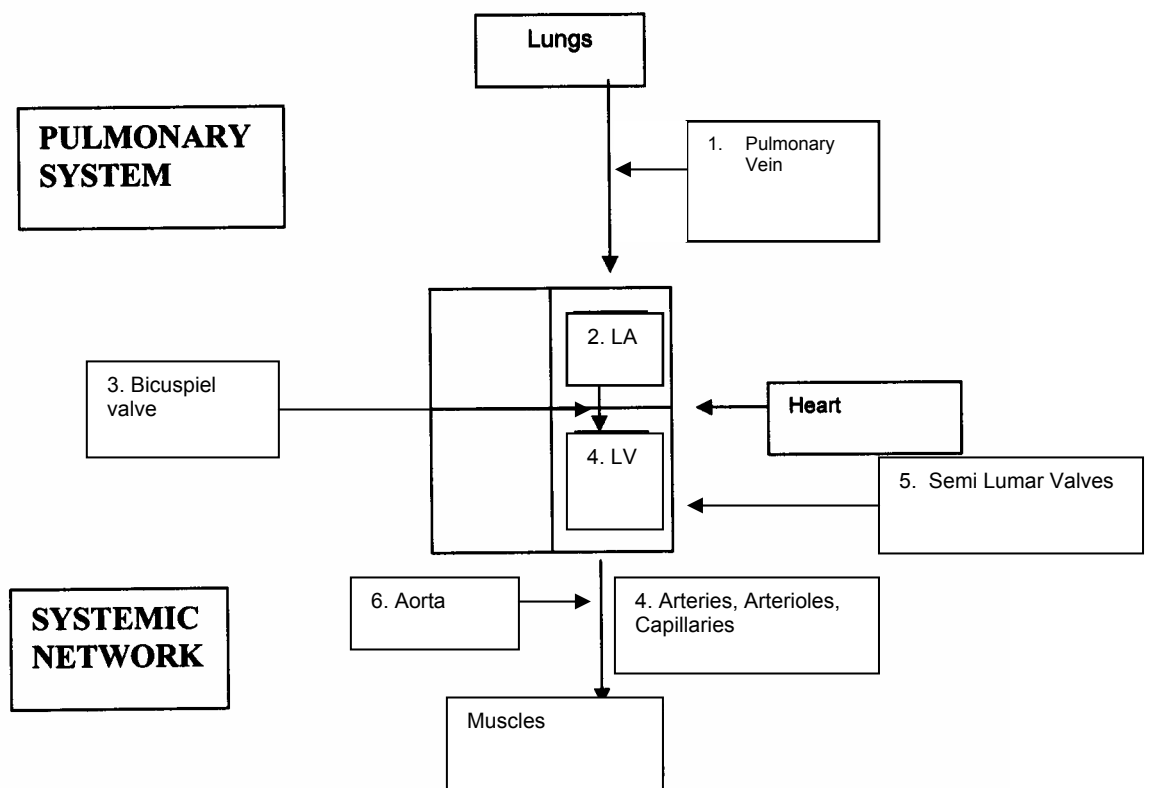
1. Less oxygen available in atmosphere at high altitude
2. The partial pressure of oxygen/ $PPO_2$  is reduced/hypoxia
3. Hyperventilation/increased rate of breathing/dehydration
4. A reduction in the diffusion gradient occurs
5. Haemoglobin saturation depends upon the partial pressure of oxygen
6. Haemoglobin is not fully saturated
7. Less oxygen is carried in the blood
8. Therefore less oxygen available for muscles
9. Fatigue sets in quicker/decrease  $VO_2$  Max/ early onset of OBLA

2 (a) During exercise more oxygen must be supplied to the working muscles.

Describe the passage of oxygenated blood through the pulmonary and systemic networks from the lungs to the working muscles.

4 marks max

1. Blood travels through pulmonary vein
2. Enters the **left** atrium
3. Passes through bicuspid valves/AV valves
4. Into **left** ventricle
5. Through semi-lunar/aortic valve
6. Pumped into aorta
7. Travels via arteries/arterioles/capillaries



LA = Left Atrium  
LV = Left Ventricle

DIAGRAM MUST BE SUPPORTED BY FLOW ARROWS



**(b) Cardiac output is a determining factor during endurance activities.**

**Describe how cardiac output is increased during endurance activities.**

**4 marks max**

1. Increase in heart rate
2. Increase in stroke volume
3. Adrenaline/nor adrenaline/epinephrine released
4. Increase in venous return/more blood returning to the heart/increase muscle pump/increase respiratory pump/venomotor control
5. Stretches wall of right atrium which increases firing of SA node
6. Greater stretching of cardiac walls increase force of contraction/Starlings Law
7. Information sent from proprioceptors/baroreceptors/chemoreceptors/thermoreceptors to cardiac control centre (CCC)
8. Increase in sympathetic control/impulse sent down cardiac accelerator nerve
9. Increase in temperature which speeds up nerve impulse

**(c) Explain the conduction system of the heart.**

**3 marks max**

1. Impulse initiates from SA (sino atrial) node
2. Causes atria to contract/atrial systole
3. Impulse received by AV (atrioventricular) node
4. Impulse conducted down Bundle of His/purkinje fibres
5. Impulse travels up purkinje fibres
6. Causes ventricles to contract/ventricular systole

**A diagram has been removed due to third party  
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Details: A diagram of the heart

- (d) Minute ventilation is defined as the volume of air inspired or expired in one minute.

Sketch a graph below to show the minute ventilation of a swimmer completing a 20-minute sub maximal swim. Show minute ventilation:

- prior to the swim,
- during the swim,
- for a ten minute recovery period.

4 marks max

Prior

1. Starting value below 20 L/min
2. Anticipatory rise prior to exercise

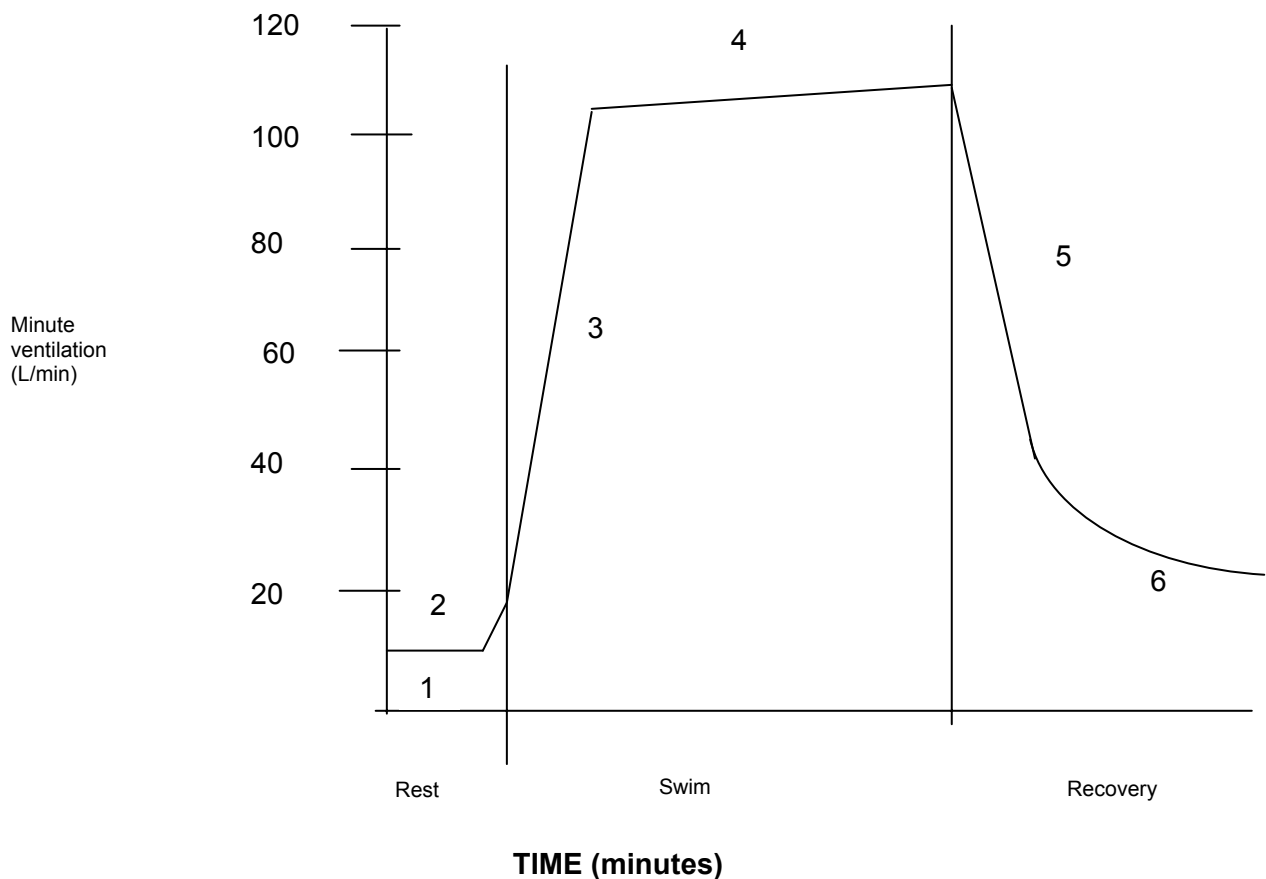
During

3. Rapid rise (60-120L/min)
4. Slower rise/plateau (60-120L/min)

Recovery

5. Rapid decrease at end of exercise
6. Slower decrease towards resting value

(Refer to diagram)



**Section B****Acquiring and Performing Movement Skills**

**3 (a) Human information processing can be explained through the use of a model such as Fig. 2.**

**(i) What is perception?**

**1 mark**

1. Information recognised and translated/interpreted/judged/make sense of

**(ii) Give a practical example of perception.**

**1 mark**

1. E.g. Tennis player judging speed/spin on opponent's serve, judging the flight path of a rugby ball before catching it

**(b) Feedback plays an important part in the learning and performance of movement skills.**

**(i) Use practical examples to explain both intrinsic and extrinsic feedback.**

**4 marks**

(Intrinsic)

1. feedback/feeling from within the performer/ internal/ kinaesthetic/ proprioceptive/knowledge of performance
2. Suitable example e.g. athlete feels grip of javelin in hand/gymnast feeling off balance

(Extrinsic)

3. External information about the performance/information gained from environment/knowledge of results
4. Suitable example e.g. coach informs about technique/ball goes in net

**(ii) Describe the types of feedback that could be used by an advanced performer.**

**2 marks**

1. Intrinsic/internal (concerning technique)/kinaesthetic feedback/knowledge of performance
2. Extrinsic feedback from coach concerning faults
3. Knowledge of results to help evaluate performance
4. Negative feedback to detect and correct errors
5. Positive feedback to reinforce correct technique

**(c) Movement skills can be classified on a number of different continua.**

**(i) Explain why invasion games such as football and netball are classified as open skills situations.**

**2 marks**

1. Action/play is constantly changing/affected by the environment
2. Performer needs to adapt/respond to the changes
3. Skills are externally paced by action around performer
4. Perceptual skills used to interpret action

**(ii) What type of practice would best suit open skills?**

**1 mark**

1. Varied practice/session needs to reflect the constantly changing environment/ game situation

**(d) Another classification system relates to high and low organisation. Use practical examples to explain both of these classifications.**

**4 marks**

(High)

1. Closely linked sub-routines/skill is not easily broken down into parts/best practiced as a whole
2. Suitable example e.g. cartwheel, running, somersault, cycling

(Low)

3. Sub-routines can be performed separately/skill is easily broken down into parts
4. Suitable example e.g. swimming stroke split into body position, legs, arms/lap up shot/triple jump/trampoline sequence

- 4 (a) Memory plays an important part in the learning and development of movement skills.

Give three characteristics of the short term memory.

**3 marks (accept first three points only)**

1. Limited capacity/holds between 5-9 items
2. Only stores information for up to 30 seconds
3. Initiates movement/working memory/two way process between STSS/STM/LTM
4. Chunking information can extend capacity
5. Information is encoded/passed into LTM

- (b) Motivation and arousal both affect the performance of skills in Physical Education and sport.

- (i) What is meant by motivation?

**1 mark**

1. The internal mechanisms and external stimuli, which arouse and direct behaviour/internal and external factors that drive behaviour
2. Drive/desire/will/need to succeed/perform

- (ii) Use a practical example and Fig. 3 below to explain the Inverted U theory of arousal.

**3 marks**

Must use practical example (max two if no example)

1. As the performer's arousal level increases.....
2. Performance increases with it but.....
3. Only to an optimum point usually at moderate arousal level
4. Beyond/below moderate arousal performance will deteriorate

- (c) The learning of movement skills can often be improved through the use of guidance.

- (i) Describe mechanical guidance.

**1 mark**

1. Use of a piece of equipment to provide support/assistance

- (ii) Describe manual guidance and give practical example.

**2 marks**

1. The performer physically supported/forced/placed in the correct position
2. E.g. a gymnast's legs being held straight in a headstand

(d) **Cognitive theories of learning related to the work of the Gestaltists explain how we learn movement skills.**

(i) **Describe four of the key terms of cognitive theories of learning from Fig. 4 below.**

**4 marks (accept first four points only)**

1. (Intervening variables) the mental process or thoughts occurring between receiving stimulus and giving a response
2. (Insight Learning) using memory to solve a problem/understanding how to solve the problem
3. (Perception) interpretation of information on offer
4. (Past experiences) past actions/schemes/motor programmes can be used to help in the present situation
5. (Whole learning) the skill is seen as a whole not in parts/skill is learnt as a whole movement

(ii) **Give a practical example of how cognitive theories of learning can be applied to the teaching of a skill in Physical Education or sport.**

**1 mark**

(Whole learning)

1. Suitable example e.g. teaching as the whole swimming stroke rather than breaking it into arms, legs etc  
(Insight/understanding)
2. Suitable example e.g. a football defender is only able to play the offside trap when she understands the principle of offside  
(Past experience)
3. Suitable example e.g. a rugby player uses past experience of dodging a player when he is learning how to dribble past a player in basketball  
(Perception)
4. Suitable example, e.g. judging that when a team-mate makes a run in football it is the appropriate time to make a pass  
(Intervening variables)
5. Suitable example, e.g. working out which players are free before passing the ball into the netball shooting circle

**Mark Scheme 2563  
June 2005**

1 (a) (i) Fig. 1 shows different values of Physical Education.

Explain and give an example of each of the values of Physical Education shown in Fig. 1.

Explanation or example valid

**4 marks – one for each of:**

1. (Physical values) – improvement of health / fitness / physique / skill / e.g. hockey skills / agility (or other suitable **physical** example.)
2. (Preparation values) – a career / work / active leisure / e.g. taking up a specific activity / wanting to become a PE teacher / leisure manager (or other suitable **preparatory** example)
3. (Personal values) – development of personal skills / social skills / co-operation, teamwork / decision making / self discipline / morals / leadership / confidence / competitiveness / strengths & weaknesses / competitiveness / mental strength / (or other suitable **personal** example.)
4. (Qualitative values) – improving quality of life / aesthetic awareness / aesthetic appreciation / creativity / achieving excellence / doing something outstanding / such as learning to swim / being selected to represent a high level team / scoring a brilliant goal (or other suitable **qualitative** example.)

(ii) Explain how education, physical recreation and sport can all exist within a school Physical Education programme.

**3 marks – one for each of:**

1. (Education) – PE lessons / what you actually learn in the lesson / theory / teaching / exams / skills / NC
2. (Physical recreation) – PE run clubs or activities for all / free time in lessons / school trips
3. (Sport) – inter-house / inter-school representative teams / fixtures / competitive part of PE



- (b) Initiatives to improve sport in schools include TOP Sport/Dragon Sport in primary schools and Sports Colleges in secondary schools.

Describe how one of TOP Sport or Dragon Sport or Sports Colleges can have a positive influence on school sport.

3 marks – for 3 of:

**NB - If candidate has not stated which, mark and award according to “best fit”  
- Mark first answer only if candidate writes about more than one**

TOP Sport/Dragon Sport:

- |    |                       |  |
|----|-----------------------|--|
| 1. | (training)            | Training is given to teachers or deliverers of the programme   |
| 2. | (range/variety)       | Gives opportunity to experience a variety of sport skills  |
| 3. | (National Curriculum) | It supports the National Curriculum  |
| 4. | (equipment 1)         | Equipment is child-friendly / colourful / attractive / appropriate size or weight                                |
| 5. | (equipment 2)         | Equipment is provided  |
| 6. | (cards)               | Illustrated resource cards provided  |
| 7. | (co-operation)        | Scheme run in partnership with LEAs /schools / local authority Sports Development Officers / NGBs / sports clubs |
| 8. | (participation)       | Promotes participation / encourages club membership  |
| 9. | (modification)        | Activities modified  |

Dragon Sport only

- |     |                       |   |
|-----|-----------------------|---|
| 10. | (parents/volunteers)  | Parents or volunteers facilitate the scheme |
| 11. | (fair play/inclusion) | Fair play / inclusion emphasised            |

**OR**

Sports Colleges:

- |    |                        |  |
|----|------------------------|--|
| 1. | (staffing)             | More staff / provide high quality teaching or coaching   |
| 2. | (elite)                | Increase opportunities for elite / high level competition / raise standards  |
| 3. | (mass participation)   | Increased mass participation / opportunities for all / wider range of activities   |
| 4. | (funding)              | More money to spend on sport / receive an initial grant / receive more funding per year than non sports colleges / have fast track access to lottery funding |
| 5. | (time)                 | More time for sport / a flexible time table  |
| 6. | (links)                | Link with community clubs / other schools / UKSI / NGB   |
| 7. | (focal point)          | Become regional focal points for excellence / focus sports selected / hub sites for school sport / focus of School Sport Co-ordinator programme              |
| 8. | (qualifications)       | Access to sport specific qualifications  |
| 9. | (facilities/equipment) | High quality facilities / high quality equipment   |

- (c) With reference to Fig. 2 and your own knowledge identify the differences between cycling as recreation and cycling as sport.

5 marks for 5 of: must identify differences to gain each mark.

Cycling as recreation .....	whereas.....	Cycling as sport
1. Available to all		Selective
2. Time flexible / decided by agreement		Strict time limits / definite start times
3. Space or location not fixed / decided by agreement		Space or location clearly defined
4. Limited rules / no rules / limited organisation		Strict rules / rule based / NGB
5. Limited levels of competition		Competitive / competitions
6. Limited levels of skill and / or fitness / don't need to be good at it		Skilful / high level of fitness required
7. Serious training or coaching not required / commitment not required		High levels of training or coaching required / commitment required
8. Not usually covered by media		Can generate great media interest
9. No sponsorship or funding		Sponsorship / funding
10. Enjoyment / social / fun / relaxed / non-serious		Serious / winning
11. Pre-occupation / amateur / voluntary / intrinsic / not paid / health benefits		Occupation / professional / obligatory / extrinsic / paid / prizes
12. Basic equipment or facilities / basic clothing / inexpensive		High tech equipment or facilities / specialist clothing / expensive equipment

(d) (i) Identify two roles of the media.

**NB: first two different responses to be marked**

**2 marks for two of:**

1. Inform
2. Educate
3. Advertise / promote / publicise
4. Entertain

(ii) Discuss both positive and negative effects of the media on sport.

**4 marks for 4 of** – three max. from one section

**Positive influences**

1. Produces positive role models / copy good behaviour / increases status of sport
2. Stereotypes can be shattered
3. Can increase participation
4. Can highlight minority sports and sports of minority groups
5. Sport now part of entertainment industry / advertise
6. Money to sport / money to clubs / sponsorship
7. Rules / timings / seasons / format / structure changed (in a positive context)

**Negative influences**

8. Focus on trivial / sensational aspects / negative behaviour / negative role models
9. Stereotypes can be reinforced
10. Reduce participation
11. Usually focuses on a few main sports / notably football / not minority sports / unequal coverage
12. (If not given in 7) Rules / timings / seasons / format / structure / timings of events changed (in a negative context)
13. Financial rewards only high at the very top / some performers may be forced to perform more frequently than is sensible / safe

- 2 (a) (i) **What is meant by opportunity, provision and esteem when used in relation to participation in sport?**

**3 marks – one for each of:**

1. (Opportunity) –having the chance to participate / having choice / time / social or physical access / appropriate playing standard / ability / skill / money / cost
2. (Provision) – tangible features / facilities / equipment /coaches /schemes / courses
3. (Esteem) –confidence / self belief / respect from others / linked to status in society / perception of self or activity

- (ii) **How can social class and wealth affect participation in sport and physical recreation in the UK?**

Opposites should be accepted but only credited once

**4 marks for 4 of:**

- |                                |   |
|--------------------------------|---|
| 1. (access)                    | Money for entrance fees / joining fees / club membership / childcare costs  |
| 2. (equipment)                 | Money to buy kit / equipment  |
| 3. (coaching)                  | Money to get coaching / training  |
| 4. (transport)                 | Cost of transport / car ownership   |
| 5. (facilities)                | Opportunities to use private or voluntary or public facilities  |
| 6. (social access / education) | A wider variety of activities / educational opportunities   |
| 7. (time)                      | May have or create more time to participate   |
| 8. (health & fitness)          | Greater levels of health or fitness associated with those of higher socio-economic status   |
| 9. (self esteem)               | Self esteem / confidence higher levels of self-esteem associated with those of higher socio-economic status / middle class culture of participation / culture surrounding some facilities, or activities may put others off |

**(b) Sport in the UK is funded in different ways.**

Describe public, private and voluntary funding of sport.

**3 marks – one for each of:**

1. (Public) – money from government / local authority / national lottery / taxes / home country sports councils / UK Sport / NGBs.
2. (Private) – money from sponsorship / companies / organisations / businesses / entrepreneurs private members clubs which aim to make a profit
3. (Voluntary) – money or donations from individuals or charities / fundraising / local clubs which exist for their members / membership fees / any surplus money goes back into club

**(c) Many ethnic sports and festivals such as the Lakeland and Highland games still take place in the UK.**

Identify characteristics of ethnic sports and give reasons for their survival.

(not separated because of overlap)

**5 marks for 5 of:**

- |                 |   |
|-----------------|---|
| 1. (local)      | local events / unique to area / local pride   |
| 2. (rowdy)      | rowdy celebrations / carnival atmosphere / pub often central focus  |
| 3. (occasional) | Occasional / often annual   |
| 4. (ritual)     | often associated with ritual / ceremonial / religion / supernatural / costumes / singing / medieval customs |
| 5. (tradition)  | Tradition / keen to re-create the past / continue customs / retain identity                                 |
| 6. (isolation)  | in relatively isolated locations / rural / natural  |
| 7. (social)     | Social / community reasons  |
| 8. (tourism)    | attracts tourists / attracts money to area / commercial / economic / media attention                        |

**(d) (i) What is meant by the term ‘The American Dream’?**

**3 marks for 3 of:**

1. (success) anyone can achieve success / wealth / status / upward social mobility
2. (rags to riches) rags to riches
3. (equality) no barriers to success / everyone equal
4. (wealth) happiness is achieved through wealth
5. (work) hard work will be rewarded
6. (opportunity) land of opportunity

**(ii) What are the characteristics of sport when it is used for political reasons?**

**3 marks for 3 of:**

1. (political) sporting success reflects political success / government stability
2. (government) Sport controlled by the government / centralised
3. (funding) funded by government / supported by government / disproportionate funding
4. (appeasement) used to appease population / keep people happy / feel good factor / reduce crime / social control / increased popularity of government
5. (nation building) nation building / shop window effect / to increase international prestige / national pride / national image
6. (country) performer competes for country not self / individual less important than politics / collectivism
7. (elitism) Elitism / concentration on best / selective
8. (profile) High profile / Olympic sports chosen

**Quality of Language**

**Three marks are available for the quality of Written Communication.**

- High:** A well reasoned, well ordered developmental explanation.  
In clear, concise, continuous prose.  
Sentences and paragraphs follow on from one another smoothly and logically.  
There will be **few, if any, errors** of grammar, punctuation and spelling. **3 marks**
- Middle:** Reasoned statements employing **sound** use of language.  
Candidates express straightforward ideas clearly.  
Sentences and paragraphs may not always be connected.  
There may be **some errors** of grammar, punctuation and spelling, but not such as to suggest a weakness in these areas. **2 marks**
- Low:** An attempt at explanation with limited quality of language.  
The candidate expresses simple ideas clearly but may be imprecise and awkward in dealing with complex or subtle concepts.  
**Errors in grammar**, punctuation and spelling may be **noticeable** and **intrusive** suggesting weaknesses in these areas. **1 mark**





**Mark Scheme 2565  
June 2005**

## Section A

## Historical Studies in Physical Education

- 1 (a) Pre-industrial popular recreation had certain characteristics which, to a greater or lesser extent, were evident in most early sports and pastimes.

To what extent did early swimming show the characteristics of popular recreation? [3]

**Levels Marked****Level 3** 3 marks

Candidate gives three characteristics of popular recreation and develops at least two fully with reference to swimming.

**Level 2** 2 marks

Candidate gives two or more characteristics of popular recreation. There will be some development of the characteristics with reference to swimming.

**Level 1** 1 mark

Candidates will simply list characteristics of popular recreation with little or no attempt to develop the extent to which characteristics were evident in swimming.

**3 marks for 3 of:** (must identify characteristic and imply a link with swimming.)

<b>Characteristic</b>	<b>...with reference to swimming</b>
1. Natural/simple	Yes – swimming in ponds, lakes, rivers / first open air swimming bath built in London in 1784
2. Local	Yes
3. Simple, unwritten rules	Yes – swimming mostly for cleanliness, safety and fun / unusual to have competitions
4. Cruel / violent	No
5. Occasional / Festival	Seasonal / frequent in summer / lack of time
6. Courtly / popular	Both classes would swim / classes would not mix / Charles II established a series of fashionable swimming contests on the Thames / Patronage
7. Rural	Mainly rural / unpolluted urban rivers also used
8. Occupational	Usually not / just for functional reasons / swimming masters would teach at local rivers & lakes
9. Wagering	Not widespread / probably locally / informally

- (b) How did the Industrial Revolution restrict opportunities for the lower classes to take part in their traditional pre-industrial sports and pastimes? [3]

3 marks for 3 of:

1. (space) loss of space
2. (time 1) shift from seasonal time to machine time / more structured lifestyle.
3. (time 2) 12 hr days / no time to play / longer working times.
4. (time 3) fewer holidays / holy days
5. (poverty) poverty / low wages / working class as slaves to the factory / no money to play.
6. (health) poor working conditions / pollution / poor living conditions / cramped / lack of health and hygiene provision/disease / no energy to play
7. (loss of rights) loss of rights / could not take part in previous ego mob games, blood sports / increased law and order / effective police force by mid century
8. (influences) religious / middle class / factory owners / morality / anti-traditional activities

- (c) (i) Identify three characteristics of 19<sup>th</sup> century public schools and explain how each characteristic contributed to the development of organised sports and games. [3]

3 marks for 3 of (first 3 marked only): (must have characteristic and influence for 1 mark.)

Characteristic	Influence on sports and games
1. Boys	Energy and enthusiasm to be channelled in to games.
2. Boarding	Time available
3. Expansion/size	As numbers grew houses were formed which became the hub of games competitions
4. Non-Local	Great variety of regional games adopted / adapted by schools
5. Spartan / harsh treatment	living conditions prepared boys for rigours of competitive sport/violent nature of games
6. Controlled by Trustees	Trustees were keen to promote school / keen to invest Trustees in sporting success
7. Endowed	School which received large gifts of money or property could build facilities / employ more assistant masters / coaching professionals
8. Fee Paying	Money could go towards developing facilities / build gymnasium / swimming baths/racquets courts etc.
9. Gentry	Influential families brought money to develop facilities / influence on types of activities brought to the school / organisational skills

(ii) The extract opposite is from *Tom Brown's School Days*. Use this to help you comment on each of the following in relation to swimming or fishing.

- Evidence of simple organisation often associated with popular recreations.
- Evidence of technical developments associated with rational recreations.
- Social relationships. [6]

6 marks for 6 of: (2 from each section.) (Sub Max 2 from each section)

**Evidence of simple organisation:**

- |                         |   |
|-------------------------|---|
| 1. (Natural facilities) | The river used for bathing (rather than a purpose built swimming bath) / natural facilities.            |
| 2. (Natural equipment)  | (Swimming 'in nature's garb') / naked / home made fishing rods (night lines).                           |
| 3. (Free time)          | Informal attendance (Tom and his friend swam 2 or 3 times a day in the summer) / swam when they wanted. |
| 4. (Boy culture)        | Boy culture / no master involvement / limited rules.  |

**Evidence of technical development:**

- |                 |   |
|-----------------|---|
| 5. (Facilities) | three areas used (Sleath's, Anstey's, Swift's) / separation by age / ability. |
| 6. (Safety)     | Bathing men on hand for safety / to prevent accidents / paid attendants.      |
| 7. (Equipment)  | Spring boards and steps built / use of night lines (if not in point 2).       |
| 8. (Technique)  | Stroke development / master involvement / rules / competition.                |

**Social relationships:**

- |                  |  |
|------------------|--|
| 9. (Friendship)  | Tom and East great friends / camaraderie between boys.   |
| 10. (Loyalty)    | School House boys protested as a group / fellowship of the house / sticking together / loyalty to ones friends.  |
| 11. (Respect)    | Boys had no respect for the keepers / for those of lower social rank / called the keepers names ('Velveteens') / fought keepers / assumed the right to fish. |
| 12. (Respect 2)  | Hierarchy of boys shown in different bathing stations / respect for sixth form / older boys.   |
| 13. (Punishment) | Keeper carries out his duties / takes Tom to the Doctor / sees that justice is done / punishment given / flogging.   |

- (d) Why did public baths develop in industrial towns in the second half of the 19<sup>th</sup> century? [6]

**Levels Marked**

<b>Level 3</b>	5-6 marks	The candidate gives at least four reasons for the development of Public Baths. Four reasons will be fully developed.
<b>Level 2</b>	3-4 marks	The candidate gives two fully developed, or at least three reasons for the development of Public Baths, where there will be some development of the reasons attempted.
<b>Level 1</b>	1-2 marks	Candidates will simply describe the development of Public Baths with little or no attempt to explain.

**6 marks for 6 of:**

<b>1. (size)</b>	towns grew in size as a result of industrial revolution
<b>2. (pollution)</b>	housing increased / rivers polluted / poor sanitation
<b>3.(Wash House Acts)</b>	local councils encouraged to apply for grants to build public baths / availability of facility/ pit head baths
<b>4. (disease)</b>	concern over disease
<b>5. (safety)</b>	safer to bathe in baths than in rivers
<b>6. (cost)</b>	max. charge of 1d for 2nd class bath / cheap / could afford it
<b>7. (washing)</b>	washing facility for lower class / cleanliness/prevent disease / promote health/avoid absenteeism through ill health
<b>8. (clothes)</b>	washing clothes / wash houses.
<b>9. (swimming)</b>	plunge baths for swimming / recreational / middle class influence / beginnings of club swimming
<b>10. (local amenity)</b>	reflected status of town / social reform / the civilising process

[Total: 21 marks]

**Three marks are available for the quality of Written Communication used in answer(s) to question(s) in Section A.**

**High:** A well reasoned, well ordered developmental explanation, in clear concise, continuous prose. Sentences and paragraphs follow on from one another smoothly and logically. There will be few, if any errors of grammar, punctuation and spelling. **3 marks**

**Middle:** Reasoned statements employing sound use of language. Candidate expresses straightforward ideas clearly. Sentences and paragraphs may not always be connected. There may be some errors of grammar, punctuation and spelling, but not such as to suggest a weakness in these areas. **2 marks**

**Low:** An attempt at explanation with limited quality of language. The candidate expresses simple ideas clearly, but may be imprecise and awkward in dealing with complex or subtle concepts. Errors in grammar, punctuation and spelling may be noticeable and intrusive suggesting weaknesses in these areas. **1 mark**

### Comparative Studies in Physical Education

**2 Cultural factors have caused new games like Aussie Rules football in Australia and basketball in the USA to develop. However, France has other reasons to promote golf as a sport new to their country.**

**(a) (i) Identify the factors which have influenced the growth of golf in France.**

**[3]**

**3 marks for:**

- |   |   |
|---|---|
| 1. (Land resources)                     | Large rural landmass  |
| 2. (Climate)                            | Favourable weather  |
| 3. (Tourism)                            | Economic expansion through tourism / golf holidays                  |
| 4. (Opportunity for mass participation) | e.g. age and gender   |
| 5. (Commercialism)                      | Opportunity for business development                                |
| 6. (Role models)                        | Prominence of French players  |
| 7. (Affluence)                          | Population is increasingly rich                                     |
| 8. (Market)                             | Growing European market   |
| 9. (European involvement)               | Less isolation  |
| 10. (Education)                         | Better education has increased awareness of lifestyle opportunities |

**(ii) Outline the reasons why basketball in the USA has evolved into a game dominated by the African-American minority and identify one example of improved provision which has contributed to this development.**

**[3]**

**Sub Max 2 marks**

**Two marks for:**

- |                      |   |
|----------------------|---|
| 1. (Inner city game) | Inner city populated by ethnic minorities   |
| 2. (Expense)         | Basketball inexpensive sport for ethnic groups                                    |
| 3. (Role models)     | Top stars / white flight / syndrome   |
| 4. (Cultural esteem) | Increased due to success  |
| 5. (Belief)          | Belief that ethnic culture has growing expertise / value                          |
| 6. (Motivation)      | The African-American driven by success / wealth / American Dream / rags to riches |

**1 mark for example of improved provision**

- |                       |  |
|-----------------------|--|
| 7. (Outdoor courts)   | Purpose built in the inner city (or example)                           |
| 8. (Midnight Leagues) | Midnight leagues established (and dominated by city ethnic minorities) |

- (iii) **Explain why Aussie Rules football is known as a 'new game' and describe how it has developed into a game of the people.** [3]

**New game 1 mark for:**

1. (Invented by Australians) Unique to Australia / was not an adopted game from the UK / Motherland / adapted from Aboriginal game

**A game for all people 2 marks for:**

2. (Social background) For players from every social background / for Aboriginals/Irish/English/Cornstalks / Open to all
3. (Social class) All levels of society watched / role for women as spectators
4. (Frontierism) Reflected frontier Australia / spirit of working together / bush culture
5. (National game) Now adopted as the game of cosmopolitan Australia / spread beyond Victoria / now played in all States
6. (Media) Wide media appeal for all society

- (b) (i) **What provision is made for delivering Sport and Physical Education to children in France?** [2]

**2 marks for:**

1. UNSS / Wednesday afternoon provision
2. Sports Sections / specialist departments by schools
3. Primary Sport Schools / new government initiative / inclusion policy
4. Sport and Physical Education is part of Baccalaureate
5. Les Classes transplantée

- (ii) Explain why the attitudes towards Sport and Physical Education in French schools have changed. [4]

**Levels Marked**

<b>Level 3</b> 4 marks	Candidates give a full explanation of three factors which have caused attitude to change toward sport and PE in French schools.
<b>Level 2</b> 2-3 marks	Candidates identify at least two factors which have caused the attitude to change and offer an explanation.
<b>Level 1</b> 1 mark	Candidates identify one factor which has caused the attitude to change and the explanation may be limited.
<b>4 marks for:</b>	
1. (Status)	Value / subject now perceived to have education value / holistic value
2. (Modern culture)	Modern culture Sport and Physical Education recognised as part of modern culture
3. (Preparation for leisure)	Preparation for continued participation / health
4. (Government influence)	PE is controlled by Ministry of National Education / direct government responsibilities
5. (Qualification)	Teacher qualification improved / more rigorous e.g. postgraduate selective entry ST APS / CAPEPS
6. (Government plan)	Government plan / progressive government plan implemented 2002
7. (Decentralisation)	More flexible programme / decentralised
8. (Exam)	Part of the Baccalaureate
9. (Accountability)	Regular inspections

- (iii) Identify two different types of Summer Camps in the USA. Describe the benefits that a child would gain as a result of attending a Summer Camp. [6]

**Types of summer camp 2 marks: Sub Max 2 of**

1. Outdoor adventure / sports camps
2. Fat camps / Self-improvement camps e.g. cosmetic camps
3. Special needs camps e.g. learning and physical needs
4. State sponsored camps / underprivileged camps
5. Business / religious / ethnic / sponsored camps
6. Commercial camps

**Different types of benefits 4 marks**

7. Challenge relate to type of camp e.g. Outdoor adventure rock climbing
8. Self discovery / knowing limitations / never giving up / how to achieve
9. Independence / self sufficiency / living away from home
10. Knowledge / skills (specific to type of camp)
11. Community spirit / working as a team / sharing work / helping others / leadership / social life skills or equivalent
12. Endorse patriotic love of America national pride
13. Frontier spirit
14. Appreciation for / Respect of environment

[Total: 21 marks]



## Section B

## Biomechanical Factors involved in Human Movement

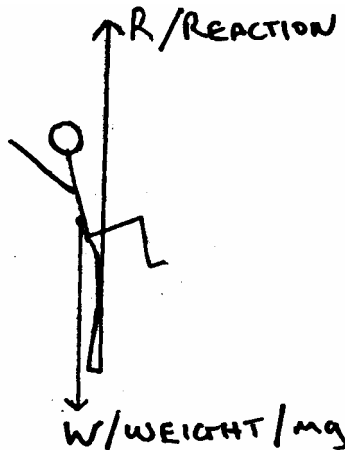
- 3 (a) (i) Fig. 1 below shows a high jumper during the take off phase of the Fosbury Flop.

Draw a diagram showing the vertical forces acting on the high jumper at take off. Using Newton's Laws of Motion, explain the significance of the vertical forces. [5]

5 marks in total

2 marks for:

1. Weight from CM
2. Reaction from foot greater than W



3 marks from:

3. (Newton 1)  $R > W$  means net upward force
4. (Newton 1) therefore high jumper does not remain on floor.
5. (Newton 2) therefore acceleration upwards
6. (Newton 2 - greater R) means greater acceleration upwards
7. (Newton 3) greater push into ground by athlete greater R upwards
8. (Newton 3) Greater height achieved

- (b) (i) Identify the axis of rotation during flight and explain how rotation is generated at take off. [3]

**3 marks in total**

**1 mark for:**

1 (axis of rotation) transverse

**2 marks from:**

2. Reaction Force does not go through CM or diagram



3. Creates Moment of force (about CM) / torque / couple

4. Creates Angular Momentum (about CM)

5. Therefore high jumper rotates about CM during flight

- (ii) Explain the concept of Centre of Mass. How does this concept help to explain why the Fosbury Flop is the most preferred technique for the high jump? [4]

**4 marks in total**

**Submax 2 marks:**

1. (CM) is the point at which a body is balanced (in all directions) / point at which weight appears to act
2. Position of CM depends on distribution of mass of body / can lie outside body
3. CM follows predetermined flight path / Height that CM reaches is predetermined at take-off

**Submax 3 marks:**

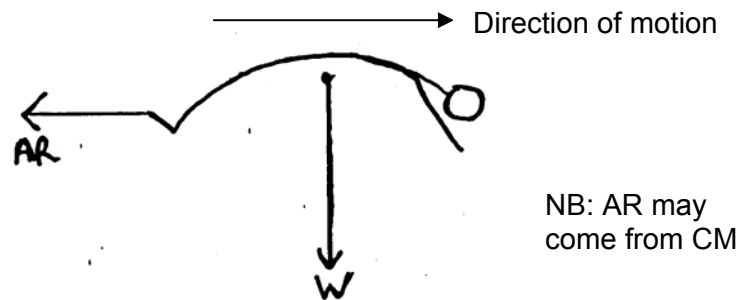
4. Fosbury Flop enables jumper's CM to lie outside body
5. During FF, CM can pass under bar
6. FF enables greater height than other methods
7. Where CM stays within body

(4, 5 and 7 can be shown by a diagram).

- (iii) With the aid of a diagram, identify the forces acting on the high jumper as he clears the bar. Explain how these forces affect the flight path of the high jumper. [4]

4 marks in total:

2 marks for:



1. Air Resistance from back of jumper / CM opposite direction of motion
2. Weight from CM bigger than AR

**2 marks from:**

3. Flight path is nearly parabolic / symmetrical
4. Because weight is dominant force /  $W > AR$
5. Air resistance is negligible
6. As jumper is moving relatively slowly

- (c) What is Moment of Inertia? In the run up, explain why the high jumper has a bent leg during the recovery phase of the stride action. [5]

**Levels Marked**

<b>Level 3</b>	5 marks	Moment of Inertia is correctly defined and a full explanation is offered.
<b>Level 2</b>	3-4 marks	Moment of inertia is described and an accurate attempt has been made to explain the bent leg recovery.
<b>Level 1</b>	1-2 marks	Moment of inertia may have not been accurately defined but an explanation for recovery has been offered.

**5 marks in total**

**Up to 3 marks from:**

- (MI) is the resistance of an object to rotate
- (MI) is rotational equivalent of mass
- (MI) depends on the distribution of mass from axis of rotation
- The further away the mass is from axis of rotation the greater the MI / opposite
- The greater the MI the greater the force required to rotate / harder it is to move it quickly / opposite
- $MI = \sum mr^2$

**Up to 3 marks from:**

- (When the leg is bent during the recovery phase) the mass of the leg is closer to its axis of rotation / hip
- Therefore its MI has decreased
- Therefore less force is required / easier to move leg through recovery stage
- It can recover more quickly

**[Total marks: 21]**

- 4 (a) Use practical examples to describe the components of a positive attitude towards training and performance. What influences a positive attitude to training and performance? [6]

**Levels Marked**

<b>Level 3</b>	5-6 marks	Candidate identifies and describes the 3 components of a positive attitude, fully exemplified and gives a full and clear explanation of at least two influences.
<b>Level 2</b>	3-4 marks	Candidate identifies at least 2 components, attempting a description with some exemplification. Two influences are identified and an explanation is offered.
<b>Level 1</b>	1-2 marks	Little or no attempt to identify components, these may have been identified along with some influences.

**(Components of a positive attitude) – must have practical examples**

- 1. (Cognitive) Cognitive element / a belief that training/playing well is worthwhile.**
- 2. (Affective) Affective element – emotional aspect ensures enjoyment / positive feelings towards training / likes training.**
- 3. (Behavioural) Behavioural element – behaviour towards training shows commitment / persistence / high level of effort / attends training.**

(Influences for a positive attitude):

4. Socialisation / how you are brought up / adopting norms from your culture / religion / expected behaviour
5. Past experiences / past success / winning / perceived high ability / previous enjoyment / fulfilment;
6. Significant others / peers / friends / family / role models / elite athletes you look up to / coaches / teachers
7. Media / portrayal of others with positive attitudes

**(b) Mental preparation is an important aspect of sport**

- (i) One of these aspects is commitment, identify three other aspects. [3]**

**Mark first 3 only**

**3 marks for:**

1. Confidence / Self confidence / self efficacy / competitive orientation / state / trait sports confidence.
2. Concentration / attentional control / cue utilisation.
3. Control / Emotional control / control of arousal/anxiety / reaching and maintaining peak flow / anxiety management / cognitive/somatic anxiety management / motivation.

- (ii) **The setting of goals is an important element of commitment. What are the psychological effects on the sports' performer of setting goals?** [3]

**3 marks from:**

1. To give confidence / raise self efficacy
2. To raise / lower / control / optimise arousal and give drive / motivation / decrease anxiety / helps you to cope.
3. Gives a focus for efforts / a target to aim for / directs attention.
4. A stepping stone to success / enables success.
5. To regulate amount of effort for a particular task / don't waste energy
6. Develop strategies to reach goals.

- (iii) **Giving practical examples, explain what is meant by product, performance and process goals to improve performance. What factors should be taken into consideration when these goals are set?** [5]

(product / performance / process) – must use practical examples

**SUB MAX 1 MARK FOR NO EXAMPLES**

**3 marks for:**

1. (product) goals associated with outcome / end result / beating others e.g. to win the league
2. (Performance) concerned with improving own performance / comparison of self with previous attempt e.g. time achieved for 100m compared with previous time
3. (Process) technique / tactics / how a movement is performed e.g. finger/wrist movement in cricket bowling

(Factors to take into consideration when setting goals)

**2 marks for 2 of:**

4. Specific / clear goals
5. Measurable / assessment possible / evaluated
6. Agreed / shared goals / have common ownership / purpose
7. Realistic / within reach / not too easy / not too difficult / relevant / challenging / achievable
8. Time-phased / goals split up into short-medium-long term / incremental / step by step.
9. Exciting / motivating / stimulating / should be enjoyable
10. Recorded / monitoring of progress

- (c) What is meant by the term self efficacy? By using examples from sport, show how a coach could assist a sports performer to raise their level of self-efficacy. [4]

**1 mark for defining the term self efficacy:**

1. The amount of self confidence in a specific situation / expectation of success in a particular task

(strategies to assist in the raising of self efficacy - **must give practical examples**)

**SUB MAX 1 FOR NO PRACTICAL EXAMPLES**

**3 marks for:**

2. Previous accomplishments / prior success / previous positive outcomes
3. Vicarious experiences / show successful role models of similar age / ability
4. Verbal persuasion / encouragement
5. Emotional control / control arousal level /calming strategies / somatic or cognitive stress management techniques.
6. Give success / ensure task is achievable / achievable goals.
7. Attributional Retraining.

**[Total: 21 marks]**





**Mark Scheme 2566  
June 2005**

## Section A

## Sport and Exercise Physiology

- 1 (a) What type of performer would predominantly use an anaerobic energy system?

State one fitness component that would be beneficial to this performer and identify one test that could be used to evaluate this component. [3]

3 marks:

**1. Example (1 mark)**

Any performer that is obviously an anaerobic athlete, i.e. one whose activity is mainly of high intensity and short duration exercise

**2. Fitness component (1 mark) NB must link with example given**

(Maximum) strength/ explosive/elastic strength/flexibility/body composition/balance/ co-ordination/agility/reaction time/speed/strength endurance/power

**3. Test (1 mark) – must link with relevant component**

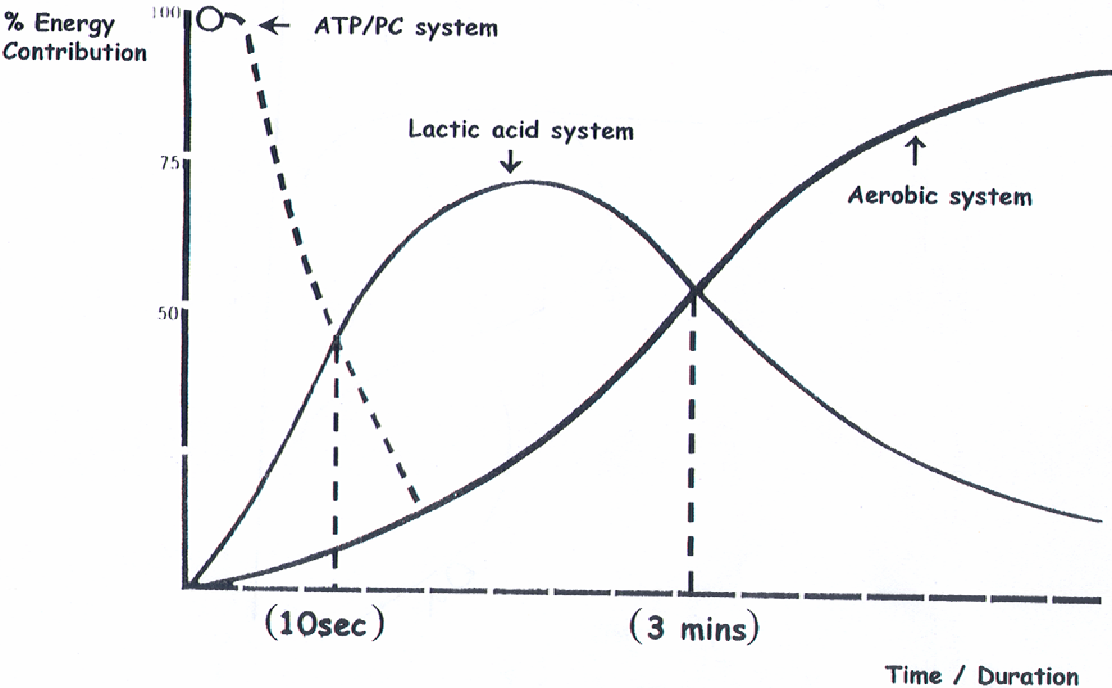
Maximum strength	dynamometer test/1RM
Explosive/elastic strength/power	vertical/sergeant jump test/Wingate test/standing broad jump
Flexibility	sit and reach test
Body composition	skin fold calliper test/hydrostatic weighing
Balance	balance board test/stork stand
Co-ordination	alternate hand wall toss test
Agility	Illinois agility run
Reaction time	ruler drop test/computer generated test
Speed	up to 100m sprint test
Strength endurance	abdominal curl test (not bleep)

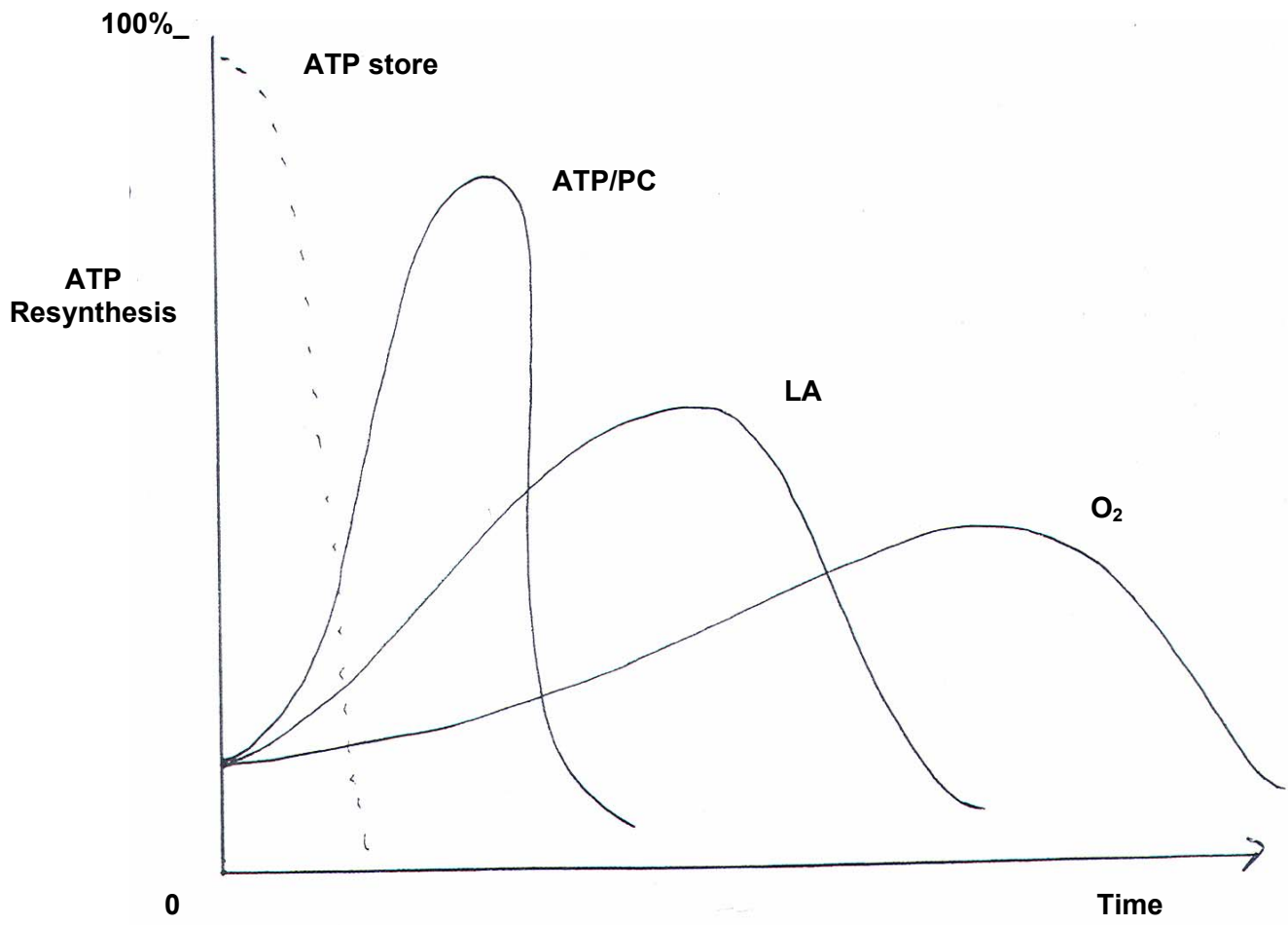
- (b) Performers usually rely on all three energy systems for ATP resynthesis. However, at anyone time one system may be predominant.

Sketch a graph to show how the predominant energy system depends on duration of exercise. [4]

4 marks:

1. Axes correctly labelled (% energy contribution/ATP usage on y axis, duration/time on x axis)
2. Correct order of peaks: (ATP/PC, LA, O<sub>2</sub>)
3. All systems to start at or around zero
4. LA peak lower than ATP/PC peak





**(c) Periodisation is a training principle that splits training into specific blocks.**

**(i) What are the benefits of using periodisation when designing a training programme?**

**[2]**

**2 marks:**

1. (Timing/peaking for event) helps to ensure that an optimal physiological peak is reached at the correct time for an important competition e.g. Olympics / World Cup etc
2. (specific component) each block is designed to prepare a specific performance component, e.g. sprint start
3. (variance) training is therefore split into smaller units to maintain motivation/avoid boredom/overtraining/allows recovery
4. double periodisation allows the performer to peak for a qualifying round and the championships

**(ii) Explain how a performer might use periodisation to structure their training programme for one year.**

**[6]**

**6 marks:**

1. split year into macrocycles, mesocycles and microcycles
2. macro cycle as the long term/one year training block
3. (long-term objective plus example) e.g. ensuring peak physical condition for the competition season
4. mesocycle as the intermediate training block/between 1-4 months
5. (medium-term objective plus example) e.g. increase strength/power/endurance
6. microcycle as the short term training block/up to 3 weeks
7. (short-term objective plus example) e.g. resistance training each week to ensure sufficient recovery and develop endurance strength/outcome of one session
8. split year into seasons/off-season, pre-season and competitive season
9. in off-season phase performer will build a training base/develop general fitness, e.g. aerobic capacity/muscular endurance/flexibility/this might involve fartlek/aerobic/interval/ circuit/weight training/used for recovery
10. in pre-season phase performer will develop more specific fitness/training sessions will increase in intensity/focus on the fitness components important for the event/specificity e.g develop speed/appropriate energy system/techniques/skills
11. in the competitive season performer will aim to maintain fitness levels/remain injury free e.g. continue training but ensure rest days/appropriate diet
12. before competitive season, performer may use tapering
13. tapering involves reducing the training to allow the body to achieve maximum energy stores prior to competition e.g. focus more on technique than developing fitness
14. this would usually last between 1-3 weeks prior to competition

**[15 marks in total]**

**Section B****Question 2 (Scientific Focus)****2 (a) (Application of Anatomical and Physiological Knowledge to Improve Performance)**

The spine forms part of the central core of the body.

**Briefly describe the types of joint found in the spine. Using examples from a sport of your choice, describe the types of movement that can occur at the spine.**

**(types of joint) submax 3**

1. pivot joint (between the top two vertebrae/the atlas and the axis)
2. cartilaginous joints (between the bodies of adjacent vertebrae)
3. gliding joints between the articulating surfaces/spinous/transverse processes of adjacent vertebrae
4. fused/fixed/immovable joints (found between adjacent vertebrae in the sacrum/coccyx)

**(types of movement) submax 3**

[examples given from swimming, but any sport acceptable]

5. flexion e.g. bending to the "take your marks" position in the racing dive
6. hyper extension/extension e.g. lifting the head to breath in butterfly
7. lateral flexion e.g. when the arms push off from the wall in a breaststroke turn)
8. rotation e.g. turning the head to the side to breathe in front crawl

**Fig. 1 shows an athlete performing an Abdominal Curl Sit Up Test, where sit ups are carried out until exhaustion, in time to a series of beeps on a tape that get closer together after each minute of exercise.**

Describe and explain the type of muscular contraction occurring in the rectus abdominis and the pectoralis major muscles as the athlete performs this test.

**(Rectus abdominis) submax 3**

9. upward phase, muscular contraction is concentric
10. origin of muscle moves towards insertion/points of attachment get closer together
11. muscle shortens (under tension)
12. downward phase, muscular contraction is eccentric
13. origin of muscle moves away from insertion/points of attachment get further away
14. muscle lengthens (under tension)

**(Pectoralis major) submax 3**

15. (both phases) muscular contraction is isometric
16. muscle is working to keep shoulders (horizontally) flexed / arms across the chest/fixator
17. origin and insertion/points of attachment remain the same distance apart
18. muscle remains the same length while developing tension

**During the test, the build up of waste products in the rectus abdominis will increase. Describe fully the process of expiration during exercise.**

**(submax 5 marks)**

19. expiration becomes active
20. in addition to diaphragm/external intercostals relaxing
21. internal intercostals contract
22. ribs pulled inwards/downwards
23. and rectus abdominis/obliques contract
24. diaphragm is pushed upwards with more force
25. which generates a greater decrease in volume inside the thoracic cavity
26. that creates a higher pressure in the lungs
27. so (more) air can be pushed/forced out at expiration

**[Total knowledge marks  
= 13]**

**APPENDIX** - Possible links within (NB not intended to be exhaustive)

Parts 1 and 2

Types of muscle fibre (L)

Effect of a warm up on the speed and strength of contraction

Part 3

Inspiration during exercise

Respiratory response to exercise

Heart rate during exercise

Control of blood supply during exercise

**2 (b) (Acquiring and Performing Movement Skills)**

**Explain each aspect of the model, shown in Figure 2, by using a chosen movement skill in sport.**

**e.g. catching a ball**

**9 marks max from:**

1. (Input) Information or stimuli from display or environment (the ball)
2. (Input) (2 of these to gain a mark) Combination of visual/auditory/kinesthetic/proprioception stimuli (seeing and hearing the ball struck)
3. (Perceptual) Selection of appropriate information / judgement of information (watching the ball) / previous experience
4. (Perceptual) Ignoring irrelevant information (focus on ball not the crowd) L
5. (Perceptual) Uses the memory to interpret information (it is a ball because I have seen a ball before)
6. (Perceptual) formulate a motor plan/decide a course of action (I must cup my hands ready to catch)
7. (Effector mechanism) decisions are put into action (I am going to catch the ball)
8. (Effector mechanism) impulses/messages sent through nervous system (for response to be made)
9. (Effector mechanism) implementing a motor programme/schema (I have caught the ball before in this particular way)
10. (Muscular system) the muscles that are needed to be used to catch the ball (the muscles in my arm are contracting to assume a catch position)
11. (Response) the outcome of the decisions regarding movement (moving to catch the ball)
12. (Feedback) In the form of knowledge of results (KR) knowledge of performance (KP)
13. (Intrinsic feedback) proprioception/kinesthesia/inner feelings/emotions of the movement (I can feel that I have caught the ball)
14. (Intrinsic feedback) Used to adjust movement as it occurs/closed loop control/ detects and corrects errors (I am unbalanced, so I will move a leg forward)
15. (Extrinsic) Information that is gained as a result of the movement (The crowd is cheering my catch)
16. (Extrinsic) Information which can be used to set future goals (I must ensure my feet are in the right position next time)

**Selective attention is an integral part of processing information to perform a movement skill. Why is selective attention so essential for optimum performance?**

**4 marks max from:**

17. prevents cognitive overload / not too much information to deal with / using the important information
18. (by filtering information) to the short-term memory / STM has limited capacity.
19. controls arousal / other stimuli do not over-arouse / calm down.
20. Keeps distractions to a minimum / not put off by other stimuli/lessens attentional wastage / too much information lowers performance / filtering out
21. Helps concentration
22. To make relevant stimuli more vivid / more aware of important cues
23. Important for quick reaction time / quick responses / to improve anticipation / saves time.



[Total knowledge marks = 13]

**2 (c) (Exercise and Sport Physiology)**

**Performer A and Performer B each perform two tests designed to evaluate the strength in the rectus abdominis muscle. Results are shown in Table 1.**

**Identify the type of strength being evaluated and the energy system being used in each of the tests in Table 1. Suggest reasons why performer A did better in test 1 or why performer B did better in test 2.**

**(Explaining tests) 4 marks**

(Test 1)

1. Explosive/elastic/dynamic strength/power
2. Energy system = ATP/PC/lactic acid

(Test 2)

3. Strength/muscular endurance
4. Energy system = lactic acid / aerobic

**(Scoring better) Submax 2**

Either (Performer A scored better in Test 1 because ...)

5. more fast twitch / type 2b muscle fibres (in rectus abdominis)
6. high level of explosive/elastic strength/power (in rectus abdominis)
7. more PC/C stores

Or (Athlete B scored better in Test 2 because)

8. more slow twitch/type 1/type 2a muscle fibres (in rectus abdominis)
9. high level of strength endurance (in rectus abdominis)
10. greater capillarisation/myoglobin/glycogen stores/mitochondria
11. greater tolerance to Lactic Acid

**Design a strength training programme for either performer A or performer B that will develop their weaker type of strength. Explain the physiological adaptations that will occur as a result of this training programme.**

**(Training Programme) sub max 4**

If performer A chosen:

12. need to develop strength endurance/the ability of the muscle to withstand fatigue / contract repeatedly without tiring
13. F = frequency: (depending on muscle groups used) 2+ times a week
14. I = intensity: 50% - 80% OF 1RM / VO<sub>2</sub> max
15. T = time: 3-6 sets / 10+ reps / 10 secs +
16. T = type of training: circuit/resistance/weight/interval/fartlek
17. (work : relief ratio) 1 : 2

If athlete B chosen:

18. need to develop explosive/elastic strength/power/the ability of the neuromuscular system to overcome resistance with a high speed of contraction / the product of strength multiplied by speed
19. F = frequency: (depending on muscle groups used) 2+ times a week
20. I = intensity: 75% - 100% OF 1RM / VO<sub>2</sub> max
21. T = time: 2-6 sets / 1-10 reps / less than 10 secs
22. T = type of training: circuit/resistance/weight/plyometric/interval
23. (work : relief ratio) 1 : 3+

**(Physiological adaptations) sub max 4**

24. muscle hypertrophy / the muscle fibre will increase in size
25. hyperplasia / the muscle fibre splits in two
26. increase in glycogen stores / making aerobic/anaerobic respiration more efficient/increased triglyceride stores
27. increase in tolerance to lactic acid enabling the athlete to work for longer in the lactic acid system
28. remove lactic acid more quickly / recover faster
29. (cardiac Adaptions) heart size / SV/CO increase
30. (vascular adaptions) Increase RBC / increased strength and elasticity of blood vessels
31. (respiratory adaptions) increase lung size/volumes
32. increased strength of ligaments/tendons
33. increase in mitochondria/myoglobin stores (meaning more energy becomes available to the muscle allowing it to work for longer)
34. increase in aerobic enzyme activity, (making the energy release process quicker)
35. increase in capillarisation meaning that blood flow to the muscle is greater, (which improves the delivery of oxygen / removal of carbon dioxide)
36. Increased stores of ATP/PC (which means that the efficiency of the ATP/PC system can be maximised)
37. (Neural adaptions) more motor units recruited.

**[Total knowledge marks = 13]**

**APPENDIX - Possible links within (NB not intended to be exhaustive)**

## Part 1

Glycogen loading  
Aerobic capacity  
Components of fitness  
Ergogenic aids

## Part 2

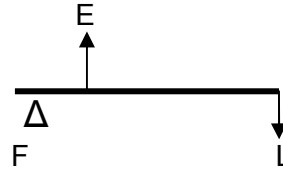
ATP RESYNTHESIS  
Recovery Process  
Principles of training  
Ergogenic aids

## 2 (d) (Biochemical Analysis of Human Movement)

Analyse the hip joint as a lever system in the upward phase of a sit up.  
Compare the hip joint as a lever system with a second class lever.

Submax of 4 marks from

1. Hip is class 3 lever in this case.
2. Diagram / FEL / LEF/



3. Effort is the force generated by the hip flexors.
4. Load is the weight of the top half of the body.
5. Fulcrum is the hip joint.
6. Lever is the bone / pelvis

Submax of 4 marks from

7. Example of class 2 lever is the ankle/foot
8. Class 3 lever / hip is less efficient than class 2 lever/ankle/foot.
9. (because in a class 3 lever/hip) effort is closer to the fulcrum than the load/(because in a class 2 lever/ankle/foot) effort is further away from fulcrum than load.
10. (in class 3) therefore more effort is required to move an equivalent load /  
(in class 2) therefore less effort is required to move an equivalent load.
11. Hip has greater range of movement than ankle/foot.

**Fig. 3 shows a trampolinist performing a tucked somersault. Explain how a trampolinist uses the concept of angular momentum to complete a successful tucked somersault.**

submax 8 marks from

12. Analogue of Newton 1/Newton 1 to rotating object
13. For a rotating body Angular Momentum is always conserved.
14. unless an unbalanced rotational / moment of force acts on that body.
15.  $AM = MI \times \omega$  / moment of inertia x angular velocity

(Take off)

16. (To gain AM) a rotational/moment of force / torque must be applied to trampolinist
17. Reaction force (at feet) is applied outside CM/ equivalent diagram acceptable
18. Body straight
19. MI large

(During flight)

20. Tucked position
21. MI reduced
22. W increased/spin faster

(Landing)

23.  $I$  increased / body straightens
24.  $\omega$  decreased/spin slower
25. Rotational/ Moment of force / torque applied to body by trampoline
26. to reduce Angular Momentum to zero

(Overall)

27. Transverse axis of rotation/side to side

**[Total knowledge marks = 13]**

**APPENDIX** - Links could include Newton 3m Movement of force, Analogues of Newton's Laws, angular acceleration

## 2 (e) (Psychology of Sport Performance)

The need for a sports performer to concentrate and to control arousal levels is an important aspect of mental preparation for sport performance. If mental preparation is thorough, then the performer could have a 'peak flow' experience.

What is meant by attentional control? Show how attentional styles can affect a sports performer's ability to enter the zone of optimal functioning to achieve a 'peak flow' experience.

**(Meaning of attentional control)****6 Marks Max**

1. Control of concentration / focus (not control attention).
2. Attentional field recognised / Relevant cues need to be picked out from display for success to occur.
3. (Nideffer) Broad and narrow dimension
4. External and internal dimension.
5. (Broad) - attention takes into account a lot of information / peripheral stimuli
6. (Narrow) - attention is on very few stimuli / concentrate on small amount of stimuli/informational cues
7. (External) - Focus is on environmental stimuli / focus directed outwards
8. (Internal) - Focus on own feelings/emotions/thoughts

**(attentional styles affecting zone ZOF) - examples from sport needed****6 Marks Max**

9. (control) (ZOF / peak flow experience) requires control of arousal/ emotions/drive/motivation
10. (amount) (ZOF) relates to the optimum arousal level for optimum performance / the right amount of drive to succeed / feeling and actions that are intrinsically satisfying/feeling good and playing well
11. (misplaced leads attention) Attention that is misplaced / wrong type of attention leads to wrong levels of (too high or too low) arousal/emotions
12. (confidence) Internal attention that is confident more likely to achieve ZOF / too much external attention hinders entry into ZOF
13. (ignore dissociative stress) If stress / anxiety felt then external focus may help / strategies / try to forget the pain / distract yourself away from stressful stimuli (Looking at the environment to try and forget the pain of long distance running)
14. (elite) Elite use more associative internal strategies in ZOF
15. (recreational) Recreative athletes use more dissociative strategies (the best runners deal with their own pain in competition and 'are in tune with their bodies')
16. (enjoyment) If attention is on enjoyment of activity more likely for ZOF / if activity is not enjoyed less likely to go into ZOF
17. (positive trait) Some have positive attentional traits / have ability for both broad and narrow focus / both broad and narrow

- more likely for ZOF (player can check positions of others but be aware of own movements)
18. (negative trait) Some have negative attentional traits / some are easily distracted / too much external and internal stimuli / too narrow a focus / ineffective attenders / cognitive overload (player confused/distracted by movements of others, the crowd and their own feelings)
19. (over arousal) Increased/over arousal results in less scanning of attentional field / taken by surprise/not expecting a response by an opponent/missing important cues.
20. (cue-utilisation) Cue-utilisation (Easterbrook) can lead to ZOF
21. (concentration) Concentration on cues that are most relevant is important for ZOF to occur
22. (distraction) The more distracted you are the less likely you are to reach ZOF

### How can the technique of imagery help sport performance?

#### 6 marks max from:

23. Improves concentration by mental selection of cues / escape distractions
24. Raises confidence by picturing success
25. Control arousal level/relaxation/through visualisation/imagining success/ personal accomplishments
26. To replicate the feeling of success / kinesthesia
27. To manage emotions / imagine feeling good/lower stress
28. Imagining cues can decrease response time / preparation to respond
29. Different strategies can be rehearsed / faults corrected mentally
30. Mental practice without public failure
31. Enables injured performers to be cognitively active

[Total knowledge marks = 13]

### Appendix

Examples of possible links A/S and A2.

A/S > A/S A2>A2

Perception/selective attention attentional focus

Motor plan> motor programmes

Decision making>reaction time reaction time affected by

Attentional focus

Intrinsic feedback confidence / internal focus

Cognitive overload broad attentional focus

Inverted U arousal arousal and attention

Attentional control> anxiety

Control.

Arousal Peak flow/ZOF

ZOF > anxiety management

Arousal Cue-utilisation

Imagery> anxiety management> dealing with audience effects.

Intrinsic feedback Imagery

## 3 (Socio-cultural Focus)

## Part one (Contemporary Studies in Physical Education)

- (a) Discrimination in sport affects minority groups such as the elderly and those with disabilities.

Identify possible problems facing elderly people in terms of their participation in sport and physical recreation.

1 mark for each response up to a maximum of 13

sub max 8

1.	(money)	limited finances/on pensions/low disposable income/no longer earning /cost
2.	(transport)	may not have car/difficulty in getting public transport
3.	(fitness)	may be more restricted physically than in younger years/less flexible/not wishing to play contact or other games.
4.	(esteem)	poor self image/self belief / believe they are not longer suited to physical activity / put off by perception that physical activity is for young people / friends don't participate / stereotyping
5.	(role models)	Insufficient role models to encourage participation
6.	(lack of choice)	local centres offering inappropriate or unappealing options/insufficient choice
7.	(instructors)	instructors/coaches unclear of wishes and abilities of the clients / not specialised in dealing with older people
8.	(school)	poor experience at school / not wishing to give physical activity another go
9.	(facilities)	Lack of specialist/adapted facilities or equipment/under-funding
10.	(promotion)	Lack of media focus /advertisement/ information
11.	(Health)	poor health / need to seek specialist advice

Outline what is being done or could be done to give people with disabilities fairer sporting and recreative opportunity, provision and esteem.

sub max 8

12. (funding 1)	overcome financial disadvantage / appreciation of income levels/investment in provision for people with disabilities / increased funding to disability sports associations (e.g. disability Sport England)
13. (strategic)	provide adequate facilities at local level to participation / regional level for excellence/specialist facilities
14. (access)	access has been improved / (Disabled Person's Act – 1981) / local Authorities must conform to minimum access requirements / consideration of toilet and changing facilities / ramps / lifts / wide car-parking bays / suitable lift control buttons etc.
15. (attitudes)	change attitudes / celebrate differences / acknowledge abilities in modified sports / assumptions / smash myths / break stereotypes / promote positive image of disabled performers/participants
16. (training/coaches)	provide specialist training for coaches / continued work to increase the number of coaches with disabilities
17. (media)	media must continue to focus on minority group sport
18. (adaptation & modification)	games/sports/adapted and modified to suit people with specific disabilities e.g. basketball/tennis use of larger/smaller/ lighter equipment / increase team numbers
19. (integrate 1) (inclusion)	integrate at school PE level/local community level / continue to integrate at elite level / inclusive rather than segregated provision
20. (positive discrimination)	disability only sessions, e.g. wheelchair baseball
21. (Big sports events)	the Paralympics raises awareness of elite sport for people with disabilities / system which groups competitors with particular functional abilities to allow fair competition (at Commonwealth Games 2002, Manchester events of able-bodies and disabled were integrated)
22. (role models)	Promotion of role models e.g. Tanni Gray
23. (campaigns)	eg. Every Body Active/Pro-Motion
24. (liaison)	liaison/co-operation between organisations /National Governing Bodies/Local authorities/disability sports organisations/ media should work together
25. (awareness)	providers/organisers need to be aware of specific challenges facing disabled people

[Total knowledge marks = 13]



## Part Two

## (b) (Historical Studies in Physical Education)

In the late 19<sup>th</sup> and early 20<sup>th</sup> centuries the objectives, content and methodology of Elementary School syllabuses for physical activity changed considerably.

Describe:

- The Model Course, which was imposed on State schools in 1902.
- A typical Physical Education lesson based on the publications *Moving and Growing* (1952) and *Planning the Programme* (1954).

13 marks for each response up to a maximum of 13.

Sub max 5

		1902 Model Course
<b>Objectives</b>	1	Fitness for military service/war
	2	Training ready for handling weapons
	3	Discipline
<b>Content</b>	4	Military drill / marching / Weapons training / staves / brush handles
	5	Deep breathing
<b>Methodology</b>	6	Command-response e.g. "attention."
	7	In ranks
	8	Group response / no individuality

**Sub max 5**

		1950s (Moving & Growing & Planning the Programme)
Objectives	9	Development of physical/social/cognitive skills
	10	To give variety of experiences
	11	Enjoyment
	12	Personal satisfaction/personal development/feeling of achievement
Content	13	Involvement by everyone
	14	Gymnastics /dance/games skills/swimming/movement to music
	15	Agility exercises/apparatus work
	16	Progressive/theme work / sequence work
Methodology	17	Child centred/individual interpretation of tasks
	18	Problem solving/creative/discovery/exploration

**Briefly outline why you think a junior school Physical Education lesson of today is somewhat different to the one you have just described from the 1950s.**

**Sub max 5**

19	(facilities)	improved facilities/more/different facilities
20	(equipment)	More child friendly equipment/colourful/ appropriate weight etc.
21	(initiatives)	initiatives in primary schools e.g. TOP Sport/SSCO
22	(accountability)	emphasis on accountability in schools today
23	(National curriculum)	changes as result of demands of national curriculum
24	(pressure)	changing pressures of international sport / pressure on primary school teachers to be experts across the curriculum
25	(values/opportunities)	'new' values associated with PE / new emphasis on equal opportunities

**[Total knowledge marks = 13]**

**APPENDIX**Possible links within AS

1. All minority groups face similar problems
2. Increased provision of: media coverage/facilities/funding/campaigns will benefit all minority groups
3. Discrimination is a societal phenomenon – a reflection of society
4. It affects all levels of performance from mass participation through to excellence

Possible links within A2

1. Contrast with public school opportunities and provision.
2. War affecting imposition of both 02 and 54 syllabuses. The 1950 'freedom'.

**(c) (Comparative Studies in Physical Education)**

The administration and status of school sport and Physical Education varies in all countries.

Compare the provision made for delivering both:

- Sport in school
- Physical Education in school

In either the USA or Australia with that made in the UK.

	USA	UK	Australia
<b>Answers relating to School Sport</b>			
<b>1. Focus or Aim</b>	Sport focus on elite group	Elite Sport in schools is extra-curricular activity/sport academy for elite Progression is possible through Town, County, Regional and national representation	Sport focus on mass participation ethic / but State and national representation in some sports e.g. Australia Schools Rugby – Pacific School Games
<b>2. Ethos</b>	Development of sports strategy to win e.g. Lombardianism / win at all costs	Participation ethic prevails/Ethic determined by teacher/Education aim/ radical ethic	Development of Games Sense / through strong emphasis on participation / education aim
<b>3. Selection</b>	(Inter-school game) for selected individuals in selected sports	(Inter-School Sport) voluntary activity/non selected	(Intra and inter-school) participation for all in wide range of sports/non selected
<b>4. Status</b>	Inter-School Sport has high status / and overrides the importance of Physical Education	Inter-School Sport is lower status (compared to Physical Education/ eroded in the state system)	PE and inter-school sport have an equal high priority in the school curriculum
<b>5. Organisation</b>	Inter-Schools league/ structure organised by State High School Athletic Association SHSAA	Some Governing Body Competitions e.g. FA Schools Knockout/ Individual teachers may organise local leagues/SSCO/Inter-School fixtures may be organised on a friendly basis	State Competitions/ organised / by School Sports Association e.g. Victoria Secondary Schools Sports Association (VSSSA)
<b>6. Leader</b>	Coach for Sport / Athletic director / professional coach	Teachers tend to be in charge of sport/voluntary commitment / Some coaches employed in Specialist Sports	Teacher leads Sport Education and Physical Education programmes / Specialist coaches can be hired/Older pupils used as Sports Programme Leaders
<b>7. Contract of Leader</b>	Coach employed on a hire and fire basis	Teacher has a permanent contract	Teacher on permanent contract

	USA	UK	Australia
<b>8. Club Links</b>	No link between school and club	(Government Initiative-School Co-ordinators Programme Local Authority Sports Development Officers) work with clubs and schools (Governing bodies and more affluent clubs have Youth Development Officers)	Sports linkage programme/links between clubs and school
<b>9. Progression</b>	Progression to University/College sport (through school as centre of excellence)	Progression through Junior clubs/UK Schools (section of Governing bodies)	Progression to Sports Institute / Academy through the club system
<b>10. Progression</b>	Sport Scholarship to University (Physical Education is not valid for matriculation)	Some sports scholarships available	Sport is not valid for matriculation
<b>11. Awards</b>	Schools Awards / Scholarship incentive to reward outstanding performance	Governing Body Award Schemes / (recognise achievements in performance) World Class funding programme for top athletes (administered by UK Sport) / Private sponsorships for individuals/teams	State Awards to recognise achievement/contribution (e.g. Baron de Coubertin Awards in Victoria)
<b>12. Community interest</b>	Great community interest / large crowds watch inter-school matches / Media interest / television interest	Minimal community/media interest / mainly family involvement	Minimal community interest / tends to be parental interest
<b>13. Role Models</b>	Celebrity visits / role models often cost money / organised by school	Individual schools arrange visits / Local clubs usually welcome opportunities / do not charge	Sports Person In School Programme / ACE / Athletic Career Education / no charge / organised by the state
<b>14. Finance</b>	Sport as a business/commercial	Part of budget/State	State funded

**Sub max 4 for lack of comparative (USA/Australia only)**

**Sub max 8 if comparative facts are in place**

	USA	UK	Australia
<b>Answers relating to Physical Education</b>			
<b>15. Admin</b>	Decentralised system of administration	Becoming more centralised / Decentralised system of administration	Decentralised system of administration
<b>16. Funding</b>	State funding (of Physical Education reflection of State autonomy)	State funding (of Physical Education individual schools seek additional funding from public, private and voluntary sources)	Federal/State funding of Physical Education (States still retain autonomy)

	<b>USA</b>	<b>UK</b>	<b>Australia</b>
<b>17. Control</b>	School Board control	LEA financial control /increasingly devolved to Head teacher/school	Principal teacher control
<b>18. Inspection</b>	Curriculum delivery of Physical Education is inspected (by superintendent)	Regular Ofsted inspection	No inspection of Physical Education and Sport Education programmes
<b>19. Programmes</b>	Daily Physical Education programmes are optional for schools/no National curriculum	Compulsory National Curriculum PE	Physical Education is compulsory (for schools up to year 10 part of National Standards Framework)
<b>20. Aims</b>	Physical Education programme focuses on direct skill learning/fitness	Physical Education is skills focused/educational emphasis	Physical Education programme focuses on lifelong skill development / Fundamental Skills programme (in Primary / Secondary school)
<b>21. Assessment</b>	Practical/Objective assessment for Physical Education	(Subjective) teacher assessment	part of NSF/some fitness testing / teacher assessment
<b>22. Exams</b>	Limited/No academic input at any stage	Examinations in PE	(High School Certificate e.g. Victoria Schools Certificate) academic PE exams / no practical
<b>23. Teacher Training Provider</b>	Superintendent/State provides teacher inset training	Public / private INSET programme	State organised professional development programmes / PASE / Physical and Sport Education
<b>24. Lead Schools</b>	Blue Ribband Schools / Beacon Schools	Specialist Sports College status (funded by Government on application) Beacon schools	Exemplary schools (share good practice)

**[Total knowledge marks = 13]**

### Examples of links within A2 synoptic question

- The system-decentralised administration in Australia means that each State can produce its own professional development programme for teachers, e.g. PASE in Victoria.
- The Sports Persons in School programme and State awards for achievement raises the profile of Sport Education in Australian schools.
- The Lombardian ethos which prevails in USA High School sport is promoted by the incentive of a College scholarship for the best players.
- The 'hire-and-fire' policy which applies to High School sports coaches in the USA reflects the capitalist system.
- The Physical Education programme in USA is in decline/in crisis.
- Participation ethos in Australian school sports reflects the country's egalitarian approach.
- Superintendent inspection increases teacher accountability in USA – reflects ideology
- Concern in both USA and Australia over health issues, e.g. obesity.
- Mass participation
  - In Australia great emphasis in Australian schools to prepare pupils for active leisure.
  - In USA there is a gym culture but limited opportunity for participation (for non-elite) after High school.
- Teacher Games in Australia is an attempt to set participation example.
- Excellence in USA sport is linked to American Dream / Rags Riches.
- Outdoor Ed
 

America	– Low risk adventure programmes
	– Outward Bound
	– Project Adventure
	– Wilderness Encounter
 Australia	 Youth Development Programme (YDP) A community linked outdoor ed programme

### Section B

**Part 1 and Part 2 total of 26 knowledge Marks**

**Max of 19 Synoptic marks from mark bands then applied**

**Total for synoptic question = 45 marks**

**Banded criteria for synoptic assessment**

<b>16 - 19</b>	<p>A comprehensive response:</p> <ul style="list-style-type: none"> <li>• Comprehensive knowledge has been consistently and clearly linked to practical performance.</li> <li>• Relevant links and connections between and within study areas have been made successfully.</li> <li>• Responses at the top of this level will demonstrate sound analytical and evaluative skills.</li> <li>• There is evidence of well-argued, independent opinion and judgements supported by sound examples.</li> <li>• Technical and specialist vocabulary is used accurately.</li> <li>• The Quality of Written Communication is generally fluent with few errors.</li> </ul>
<b>11 - 15</b>	<p>A competent answer:</p> <ul style="list-style-type: none"> <li>• Substantial knowledge has been linked to practical performance and the majority of examples will be well considered.</li> <li>• Relevant links between and within subject areas have been made with some success.</li> <li>• Evidence of sound analysis is apparent.</li> <li>• Independent opinions and judgements will be present but towards the bottom of this level, not always supported by sound examples.</li> <li>• Technical and specialist vocabulary is used with some accuracy.</li> <li>• The Quality of Written Communication is generally fluent with few errors.</li> </ul>
<b>6 - 10</b>	<p>A straightforward answer:</p> <ul style="list-style-type: none"> <li>• There will be evidence that some knowledge has been linked to practical performance. Connections are made between and within study areas but at the bottom of this level, links will be tenuous.</li> <li>• Analysis will be limited and restricted to the obvious.</li> <li>• Opinion and judgement will be unsupported.</li> <li>• Technical and specialist vocabulary is used with limited success.</li> <li>• The Quality of Written Communication lacks fluency and there will be errors.</li> </ul>
<b>0 - 5</b>	<p style="text-align: center;">A limited answer:</p> <ul style="list-style-type: none"> <li>• There will be limited knowledge with few links to practical performance.</li> <li>• Connections within and between study areas rarely made.</li> <li>• Opinion and judgement almost entirely absent.</li> <li>• Little or no attempt to use technical and specialist vocabulary at the bottom of this level.</li> <li>• Errors in Quality of Written Communication will be intrusive.</li> </ul>





# **Report on the Units June 2005**

**Chief Examiner's introduction to report to centres – June 2005**

There was a small increase in the number of candidates in the June 2005 session of examinations. There was, in addition, a small increase in the percentage of candidates achieving an A grade at A Level.

Principal examiners were very positive in their comments relating to the performance of candidates. At AS it was pleasing to note that candidates generally obtained their marks equally from all the questions on a paper. This has not always been the case in previous sessions. Good candidates demonstrated a considerable depth of subject knowledge - evidence of good quality teaching in their Centres.

At A2 it was good to note that Principal Examiners indicated that candidates were better prepared, particularly in terms of examination technique.

In the synoptic paper the better candidates again showed evidence of planning their answers and chose the route of their answers carefully.

Quality of language marks continue to differentiate. Candidates should be aware that these marks are awarded on extended prose and those candidates who answer in bullet points, where the question command word indicates extended prose (describe, explain etc.), deny themselves access to these marks.

Levels mark schemes were again used. This allowed examiners to give credit to candidates who, when the question asked, gave evidence of their knowledge and understanding of a topic. Centres should be aware that the development of levels mark schemes negates the advice often given to candidates that 1 point = 1 mark.

In the coursework component the majority of centres continue to be accurate in their assessment of practical activities. However, the assessment of the Personal Performance Portfolio at AS and the assessment of Evaluation and Appreciation at A2 continues to be problem areas for some Centres.

Centres should also note that there appeared to be an increase in the number of transcript and mathematical errors on the assessment documentation which in many cases, if it had not been seen by moderators, would have disadvantaged candidates.

Once again centres, candidates and examiners should congratulate themselves on a very successful summer examination session.

## 2562: The Application of Physiological and Psychological Knowledge to Improve Performance

### General Comments

May 2005 was the tenth sitting of Unit 2562 and pleasingly produced the most equitable correlation of responses across both sections and questions since the inception of Curriculum 2000. Equally pleasing was the proliferation of marks in the over forty bracket; clear evidence of the high quality teaching of both the Anatomy and Acquiring and Performing Movement Skills specifications in many Centres.

There was once again evidence to support the view by the examining team that particular sections of both specifications had either not been covered by Centres or, covered superficially; thereby preventing candidates from gaining access to the full mark range.

As Centres strive to enhance the learning and examination preparation of candidates for future sittings of this unit and indeed Advanced Level study, the comments identified below may prove to be beneficial.

- Candidates should be encouraged to use the question 'leader' to assist them in identifying the area of the specification from which the ensuing questions will be drawn e.g. classification of movement skills was clearly the focus for questions 3(c) and 3(d).
- The command words; identify, describe and explain should be used to determine the response required by the question. Identify, in some cases, could simply be the use of one word or phrase. Whereas, describe and explain both demand a much more detailed response.
- Bullet point answers will rarely be credited, e.g. question 2(b) point 9 on the mark scheme requires all the detail concerning the increase in temperature - simply writing '*increase in temperature*' is insufficient
- Where a question requires an explanation and an example, candidates should ensure that in fact both of these instructions have been carried out. There were numerous occasions at this sitting where candidates clearly thought that a simple example would suffice for both parts of the question.
- Examples, when required, should not simply name a sport ('*in football*'), a skill ('*a tennis serve*') or a scenario ('*passing to a team-mate*') but should describe the action as it would occur, e.g. question 3(a)(ii) a good answer would contain all detail concerning spin or speed of the ball and not just refer to '*a tennis serve*'.
- Anatomical terminology should be used wherever required, e.g. named muscles as opposed to '*the hamstrings*' or oxygen as opposed to air.
- It should be noted that anatomical questions in Section A may require candidates to explain both 'why' and 'how' a particular system occurs. Maximum score cannot be gained when all aspects of a question are not visited in a response.
- Similarly, graph work responses should include all phases contained within the question, e.g. pre, during and post exercise

### *Report on the Units taken in June 2005*

- Reiteration of the same comment more than once will not enhance a candidate's score on a question.
- Candidates should not repeat terms from the question as part of their answer, e.g. *'an effect of a warm up is to warm up the blood'* or *'the short-term memory holds information for a short time'*.
- Where a question specifically requires candidates to provide two, three or more points, only the first two, three etc. comments will be marked by the examining team, with any subsequent responses gaining no credit whatsoever.

### **Comments on Individual Questions**

#### **Question 1**

- (a) (i) A generally well-answered question, although some candidates identified the joint type as synovial and the antagonist was in some cases referred to vaguely as the hamstrings.
- (ii) Another well-answered question. However, there were several instances where candidates repeated points 1 and 2, or identified a role but did not relate this to a specific structure and consequently failed to gain any or additional marks.
- (b) (i) Although biomechanics does not now appear to present as many difficulties for Centres, as was the case in the earlier years of this unit, there was still evidence of a lack of specific detail, e.g. *'straight through the ball'* as opposed to *'through the centre of mass'*.
- (ii) Similarly, the lack of specificity resulted in a loss of marks for some candidates where the racquet angle and not the ball became the main focus of the answer.
- (c) Responses to this question varied and whilst often well answered there was clear evidence to suggest that candidates had not identified the fact that two effects were required. For several candidates this meant that their first and incorrect answer relating to increased heart rate was recognised by examiners to be the first effect and only the next effect could then be considered. Poor examination technique, insofar as some had not read the question fully, meant that the focus of attention was on the muscular not vascular system.
- (d) Whilst this question was accessible to all candidates, it was generally only the stronger candidates who gained maximum marks by retaining the focus of the question. Weaker candidates tended to describe some of points 1, 7, 8 or 9. Unfortunately, however, there were still candidates who failed to identify the correct focus of the question and described the effects of altitude once a performer returns to sea level.

## Question 2

- (a) Although four stages of the pulmonary and systemic networks were quickly and specifically identified by many candidates, others failed to show a clear understanding of this process. Common mistakes on this question for the weaker candidates being; reference to the right side of the heart, deoxygenated blood and an incorrect order of flow in terms of atrium, ventricle and valves.
- (b) There was evidence of clear differentiation in the range of responses offered by candidates. For the weaker candidate points 1 and 2 allowed access to fifty percent of the marks on offer, whilst points 4, 7 and 8 tended only to be described by the stronger candidates. All candidates should, in questions of this nature, be encouraged to draw upon their knowledge to construct detailed responses rather than simply using a basic term or phrase such as venous return, e.g. question 2(b) point 4, cardiac output will increase as a result of an increase in venous return.
- (c) The term 'conduction system' was clearly alien to some candidates and several members of the examining team noted that in such cases the answer to this question was exactly the same as the previous one! For those with specific knowledge of this system credit worthy comments were easily made. Centres should note that questions requiring a description or explanation demand answers constructed in continuous prose.
- (d) This particular question produced an enormous range of responses from a totally incorrect pyramid shape to a horizontal line drawn across the axes! As a guide to Centres, the most frequently occurring mistakes were; a lack of differentiation between the stages covered by points 2 and 3 and points 5 and 6 and resting values commencing at zero or above 20 l/min. All stages of such a graph must contain some correct detail to allow access to maximum marks.

## Question 3

- (a) i Somewhat surprisingly many candidates were unfamiliar with the concept of perception and were, therefore, unable to offer an accurate definition. There were numerous references to 'seeing' the ball as opposed to the more exact description of interpretation or judgment required by the mark scheme. Many candidates confused the term perception with anticipation.
- ii Generally more accurate than part (i), but inevitably a reflection of what had been written previously, with frequent examples relating to anticipating the action of a performer.
- (b) (i) Despite the fact that the majority of candidates gained three to four marks there was frequently a lack of clarity in the explanation of both types of feedback. Some candidates described intrinsic feedback as being related to the degree of 'happiness' felt during performance, whilst other confused extrinsic feedback with motivation.
- (ii) Poor examination technique for many resulted in the loss of one mark, with only one type of feedback being cited. Bullet pointed lists, without an appropriate description, as referred to in the general comments of this report, gained no marks whatsoever.

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- (c) (i) Well answered by the majority of candidates, although only rare reference was made to point 4 on the mark scheme.
- (ii) It was quite simply a case of candidates understanding the practice requirements for open skills thereby gaining the mark on offer or not, as was the case where fixed practice or massed practice was given.
- (d) Despite the fact that many more candidates had a clearer grasp of the concept of organisation than on previous occasions, there was evidence to suggest that some Centres had failed to cover this area in sufficient detail. Pleasingly, however, relatively few candidates mixed up the two areas, but for the weaker candidates the idea of organisation simply meant the facility and equipment requirements of the sport!

### Question 4

- (a) A generally well answered question, with the majority of marks being acquired through explanation of points 1, 2 and 4 on the mark scheme. Responses from weaker candidates tended to lack specificity e.g. '*short term memory can only hold a few things*' whereas others repeated the word 'short' from the question to illustrate point 2 on the mark scheme.
- (b) (i) Maximum marks were gained in the majority of cases.
- (ii) An increase in arousal leading to an increase in performance, points 1 and 2 from the mark scheme, were the most frequently used comments in candidates' responses. Although most gained two marks the third mark on offer was often lost through failure to give a practical example
- (c) (i) On the whole candidates gained the one mark available, although many needed a practical example to support their explanation of mechanical guidance. There was some confusion with manual guidance for the weaker candidates.
- (ii) Poor use of English, insofar as responses were vague, resulted in a loss of marks for some candidates e.g. 'manual guidance is helping someone through a move'.
- (d) (i) There was a clear differentiation between those candidates and indeed Centres who understood the concept of cognitive theories and those who simply guessed. Fortunately, for 'the guessers' the descriptive terminology used in cognitive theories allows for a degree of guess work, with marks being gained through descriptions of past experiences (point 4) and whole learning (point 5). As would be expected in a question of this nature, only those with a firm grasp of this theory were then able to go on to score the remaining two marks on offer through clear and precise descriptions of insight learning (point 2), perception (point 3) and to a lesser extent intervening variables (point 1).

## 2563: Unit Name Contemporary Studies in Physical Education

### General Comments

Unit 2563 (Contemporary Studies in Physical Education) is marked out of 45. It equates to a maximum of 30% of a candidate's overall AS mark. This paper requires candidates to answer two questions of 21 marks each. As is the norm, each of the two questions was subdivided into four to five question parts which, in May 2005, were worth between two and five marks.

There is a maximum of three marks available over the paper as a whole for quality of written communication and again, this area of assessment was heartening. Candidates who scored a maximum of three wrote clearly and logically with few if any errors of grammar, punctuation and/or spelling. It should be noted that certain questions can most usefully be answered with short, precise one or two word answers e.g. *Identify two roles of the media*, where it was perfectly appropriate to answer simply: *"inform and educate"*.

However, when the command word calls for greater elaboration, explanation or analysis (e.g. discuss, compare, explain), then a more well reasoned, well ordered developmental answer will be required for full credit.

Responses from Centres varied with a large number clearly having taught very effectively to both the specification and the exam with candidates' answers showing precision and quality. However, a minority may have left out small parts of the specification as no candidates scored well on some areas and others produced answers that were consistently vague. Past papers and mark schemes are vital as part of exam preparation, particularly for new Centres or those with newer staff. The paper seemed to differentiate well in that there was a good spread of marks ranging from a small number of outstanding candidates who scored over 40 and another small minority who gained under 10 marks in total. Between 15 – 35 there was a good spread, with most candidates scoring above 25.

Overall, candidates' answers were encouraging; examination technique was sound to very good and knowledge of the specification was both accurate and all encompassing – a clear reflection of the effort and commitment of both subject staff and candidates.

There was no evidence of candidates being short of time and there was no clear difference in marks between questions one and two. There was no levels of response mark scheme on this paper and it should not be supposed that one will be imposed on every Contemporary Studies paper. Rather, levels of response mark schemes will be used when a specific question would benefit from this type of assessment. They are likely to be used for higher mark questions (4-6) with more demanding command words.

Levels of response marking gives candidates greater opportunity:

- to answer the question in their own way.
- to go into relevant detail where they think it is appropriate.
- to have the freedom to show what they know.
- to show how well they can think, plan, and structure an answer within the confines of an examination.
- to gain credit for high order skills such as analysis, judgement, independent opinion, rather than the arguably more straightforward task of remembering relevant key words and terms.
- to show understanding of work rather than just recall.

## Comments on Individual Questions

### Question 1

This question focused on the conceptual area of the specification, (Physical Education, physical recreation and sport) as well as initiatives for sport in schools and the issue of sport and the media.

- (a) i A very specific opening question on the values associated with physical education, which proved to be quite demanding. Top candidates who knew their subject easily achieved maximum marks, those who were unsure tended to hit points 1 (physical values) and 3 (personal values). Preparation values were often misunderstood with weaker candidates wrongly suggesting “a warm up” or “getting kit and equipment ready to prepare to take part”. Qualitative values were least well understood / explained.
- (a) ii Widespread understanding of education, physical recreation and sport were clearly evident. What challenged the weaker candidates was the need to link their explanation to the school environment (as required by the question). Most scored on points 1 and 3, with point 2 (physical recreation) being least well utilised.
- (b) Here, past paper questions seem to have been effectively used for exam preparation and this should be encouraged. Also, candidates were helped by being given a choice of which initiative to describe. In addition, with only three marks available, many candidates (particularly those who chose sports colleges as their theme) scored a maximum of three marks. Most common answers were 1 (staffing), 3 (increased mass participation) , 4 (increased funding), 6 (links) and 9 (high quality facilities). Candidates who chose either TOP Sport or Dragon Sport tended to do slightly less well. Point 3 (mass participation ) was commonly hit. Weaker candidates described features rather than possible positive influences and scored no marks.
- (c) This question required candidates to identify the differences between cycling as recreation and cycling as sport. They needed to apply their knowledge of concepts (physical recreation and sport) to a strict identification of differences. Questions that require a comparison, contrast or identification of differences need specific exam technique to ensure efficiency of mark scoring. Direct comparisons or differences were required by the examining team. Candidates could and did score marks if they wrote two separate paragraphs (one on cycling as physical recreation and one on cycling as sport) but those who scored more efficiently used links words such as “however”, “but”, “although” and “whereas”. E.g. “cycling when done as recreation is not competitive whereas cycling when done as sport is very competitive”. (one mark). Marks could also be gained if candidates clearly said that one was “more competitive (for example) than the other”.
- (d) i Here, two roles of the media needed to be identified. This was a recall question which needed exam technique, in that the question clearly stated the number of responses required. Hence, the first two marks only were marked (even if they appeared on the same answer line). This is a widespread rule of examinations which candidates need to remember. Most candidates scored a maximum of two marks here.



- (d) ii A slightly more demanding 'discuss' question, requiring understanding of both positive and negative effects of the media on sport. Positive effects were slightly favoured by candidates, the majority of whom realised that they had to answer both parts of the question to be eligible to score a maximum – further evidence of fine exam preparation and technique. Some candidates strayed from the specific requirements of the question and wrote eloquently about the effects of the media on individual sports performers but gained no credit.

## Question 2

This question continued with sporting issues, namely social class/wealth as a feature influencing participation. A recall question on types of funding was also included. Finally, sport and culture was examined (ethnic sports, American Dream and sport and politics).

- (a) i A recall question requiring explanation of the terms opportunity, provision and esteem. Good to very good candidates had no problems here, however, weaker candidates simply repeated the terms in the question, got 'opportunity' and 'provision' mixed up, or did not understand the term 'esteem', (often thinking it was something to do with motivation).
- (a) ii A question on social class and wealth. This was the first time that this particular societal group has been examined (women, the elderly and people with disabilities having more recently appeared). This question differentiated and in some cases caused problems. The best candidates broke down 'cost' and easily scored maximum marks from the following: points 1 (membership fees), 2 (equipment), 3 (coaching), 4 (transport). Point 7 (time) was also often utilised. Weaker candidates tended to make rather bland statements that "*certain classes take part in certain activities*" but with no accompanying explanation. They also tended to focus on one point throughout their answer and therefore could not achieve the higher scores (poor exam technique). A small minority thought that 'wealth' was a socio-cultural group.
- (b) A straightforward recall question which required a description of each of public, private and voluntary funding of sport in the UK. Three quick and easy marks for most candidates. Weaker candidates with a lack of subject knowledge simply repeated the key words from the question. Even when descriptions were poor, some candidates managed to score thanks to a clear explanation. Such good exam technique should be encouraged. Voluntary was the least well answered.
- (c) A very high scoring recall question on surviving ethnic sports in the UK with many candidates scoring maximum marks, even if they had done poorly elsewhere on the paper. The most frequent responses were 1 (local), 3 (occasional), 5 (traditional), 7 (community/social) 8 (tourism). Some candidates wrote about tribal societies here.
- (d) i This question on the American Dream differentiated, with only the very best candidates managing to score a maximum of three marks. Points 1 (anyone can achieve success), 2 (rags to riches) and 3 (everyone is equal) were most commonly hit. Many candidates did not spot the key to the question and wrote about sport in the USA – the Lombardian ethic (win at all costs) and sport and commercialism – all for no credit.

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- (d) ii Candidates still seem to find this area of the specification on sport and politics challenging. It was a demanding question, but if candidates knew their work they easily scored point 5 (nation building) and point 4 (appeasement). Unfortunately candidates were able to pick up marks almost by accident, (namely points 3 (funding), 7 (elitism) & 8 (high profile sports)) without really having understood the crux of the question.

## **2565: PHYSICAL EDUCATION (Written Examination)**

### **General Comments**

Candidates must cover at least two of the optional areas of study. At least one response must relate to Section A. Section A is comprised of the Historical and Comparative topics. 3 marks are available for quality of written communication in Section A, where answers require a piece of extended writing.

The History and Psychology questions, once again, proved most popular with a growing number of centres offering Comparative but very few covering the Biomechanics option.

Examination technique is an important factor determining success on this paper. This year, once again, it was evident that candidates' examination technique continues to improve. The better candidates were able to complete answers succinctly fulfilling the expectation of the question. When a specific number of points were requested, these candidates offered that number of responses and when practical examples were expected, they attempted to offer these. Where a specific number of responses are required, for example in question 1(c)(i), 'identify **three** characteristics of 19<sup>th</sup> century public schools', candidates must ensure that they only offer three as examiners will only mark the first three offered. Similarly in 4(c), 'By using examples from sport, show how a coach could assist a sports performer to raise their 'level of self-efficacy', candidates were expected not just to identify 'Bandura's strategies' but to exemplify their use and full marks could not be achieved unless this occurred.

Candidates are preparing their responses to answers in Section A more thoroughly and the Quality of Language mark continues to show an improvement. The use of paragraphs and the fluency of these planned responses certainly help to improve students' chances of scoring well. However, there still appears to be a significant number of candidates who wrote their answers in Section A using bullet points which meant a low Quality of Language mark was awarded. This session the examiners continued with the use of a 'levels mark scheme' to assess responses to particular parts of the examination paper. This provided the examiners with the opportunity to credit higher order levels of knowledge and understanding. This is an important development in the examining process which was first introduced in June 2004. Higher order skills such as analysis, application, comparison or argument may appropriately require a differentiated mark scheme and a levels mark scheme provides this. In the Psychology of Sports Performance Question 4 (a), a levels mark scheme was applied and used particularly successfully to determine between weaker candidates who were only capable of identifying the three components of a positive attitude and influences on attitude, and good candidates who were able to describe the components using appropriate practical examples as well as show how an attitude can be influenced.

## Comments on Individual Questions

### Question 1 Historical Studies in Physical Education

- (a) Well prepared candidates were able to identify characteristics of popular recreation and accurately describe the extent to which swimming showed these characteristics. Weaker candidates failed to describe the extent but listed characteristics.
- (b) This was well answered with *“lack of space”* and *“time”* featuring in most candidate responses. *“Fewer holidays”*, *“changes from seasonal to machine time”* as well as *“poor health”* were also regularly discussed. The better candidates were, in addition, able to develop their answers with reference to *“changes in societal attitudes”* and the impact of *“increased law and order”*.
- (c) (i) Well prepared candidates scored well, with *“boys”*, *“boarding”*, *“non-local”* and *“fee paying”* the most frequently referred to characteristics. Weaker candidates often failed to identify characteristics, wrote about more than three, or if characteristics were given, were unable to explain how they contributed to the development of organised sports and games.
- (ii) Technical developments were generally recognisable with *“equipment”* and *“safety”* popular answers and the better candidates accurately identified at least two ‘social relationships’. Weaker candidates wrote about ‘evidence of simple organisation’, but failed to establish the association with popular recreation.
- (d) The question was marked using a levels mark scheme and enabled the better candidates an opportunity to develop their responses and to gain credit for greater detail. The impact of ‘industrialisation’ and ‘urbanisation’ in terms of ‘polluted rivers’ and the need for the ‘Wash House Acts’ leading to ‘safer, clean washing facilities’ showed complete understanding for this area. Weaker candidates eluded to *“better washing facilities”* without explaining why these were needed.

### Question 2 Comparative Studies in Physical Education

- (a) (i) In general candidates showed a good understanding of the factors influencing the ‘growth of golf’ with *“land resources”*, *“climate”* and *“tourism”* popularly being offered.
- (ii) The *“white flight syndrome”* or *“role models”* were often given as reasons for the domination of Basketball by the African-American minority with better candidates able to secure a sub max. by identifying a second reason. The *“Rags to Riches”* or *“American Dream”* motivation or the *“low cost factor”* were popular alternatives and well prepared candidates knew about both the ‘Midnight League’ and increased ‘court provision’.
- (iii) This question was not well answered with many candidates confused by the origins of the game. Many attempted to describe the game as an *“adaptation of a colonial game”* and its development as an attempt to *“disassociate Australia from the ‘Motherland’”*.
- (b) (i) All five points on the mark scheme were regularly covered demonstrating improved knowledge and understanding of the delivery of Sport and Physical Education in France.

- (ii) This question was marked using a levels mark scheme and again enabled candidates to gain credit for developed answers. The better candidates showed a good understanding of the changing attitude referring to the “*move from militarism*”, the increased level of “*governmental influence*” and the need for “*improved teacher qualification*”. Whilst weaker candidates often wrote everything they knew about France in a vain attempt to garner marks.
- (iii) Candidates often gave two acceptable examples of ‘Summer Camps’ in the USA and were able to score well describing the benefits of attending ‘Summer camps’.

**Question 3 Biomechanical Factors Involved in Human Movement**

- (a) Pin diagrams showing vertical forces still tend to prove problematic for candidates. They fail to draw big enough diagrams and do not always show the ‘origin of the force’. Better candidates showed the reaction force as being greater than weight and were able to apply ‘Newton’s Laws’ to the example of the High Jumper to explain the significance of the vertical forces.
- (b) (i) Only a few candidates recognised the ‘axis of rotation’ and even fewer were able to explain how rotation was achieved
- (ii) There were generally good definitions offered of the concept of ‘Centre of Mass’, and the better candidates scored well identifying how the high jumper uses the ‘Fosbury Flop’ effectively
- (c) Whilst the diagrams showing the forces acting on the high jumper were of poor quality, the theory of how these forces affect the flight path was clearly understood and candidates scored well.
- (d) This ‘levels marked’ question gave the better candidates scope to develop their responses and gain credit for the explanation of the importance of the concept of ‘moment of inertia’ when applied to the bent leg recovery. Many candidates, however, did not know what ‘moment of inertia’ was and therefore failed to show any understanding of the concept.

**Question 4 Psychology of Sport Performance**

- (a) There were some excellent answers from candidates who knew the three components of a positive attitude and who used practical examples to show their understanding to describe the components in detail. Many of these candidates achieved Level 3 with additional information about the influences on a ‘positive attitude’. Weaker candidates tried to list what a performer with a positive attitude would show, for example, listing “*commitment*”, “*ability*” and “*effort*” in an attempt to answer the question.
- (b) (i) Many candidates scored a ‘max’ for the identification of the remaining 3 ‘C’s from the NCF’s list for mental preparation.
- (ii) This question was well answered with most scoring marks for comments on the ‘level of motivation’ and the ‘use of a goal to provide ‘something to aim for’. The better candidates often identified that confidence would rise or offered a third response to establish maximum marks.

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- (iii) Almost every candidate secured two marks for factors which should be taken into account when setting goals, but descriptions and examples of the three types of goal were not always accurate.
- (iv) The term 'self-efficacy' was well understood with many candidates identifying 'Bandura's four strategies' correctly as ways to assist a sports performer in raising their level of 'self-efficacy'. Differences in exam technique could be clearly seen as better candidates quite regularly secured maximum marks by using practical examples to show the effect of the coach. Candidates who knew the theory were restricted to the number of marks they could achieve through their failure to apply the required practical examples.

**2566: Exercise and Sport Physiology and the integration of knowledge of principles and concepts across the area of Physical Education**

**General Comments**

Candidates seemed to be generally better prepared for this examination, especially for the synoptic part of the paper. Candidates often showed effective planning for all questions, although at the lower ability range some candidates planning was less in evidence in responses preferred a 'stream of consciousness' method of responding to the synoptic questions and they often wasted valuable time by including irrelevant material that did not contribute to answering the question set. In the compulsory sport and exercise physiology question, the best candidates showed good knowledge and understanding of the 'anaerobic energy system' and could apply their knowledge to the preparation for sports performance. Those candidates who were not adequately prepared showed significant gaps in their knowledge related to 'periodisation'. Such candidates were also unable to show in graphical form how the 'predominant energy system' depended on the duration of exercise.

In the synoptic question there were some outstanding responses from candidates, who showed the ability to link their answers to practical performance and to other aspects within and between topic areas. The weaker candidates showed a poor level of knowledge and understanding of their chosen topic areas. There was some evidence that candidates had chosen a route not suited to their strengths. Weaker candidates in the synoptic questions made little or no attempt to link material or to give practical examples. Many of the better candidates gave very good, relevant practical examples to exemplify their theoretical points. Weaker candidates simply gave sports or the names of sports stars for their examples and consequently did not use their examples to back up their statements.

As last year, the most effective candidates made short plans and made their links throughout their answers. Those who wrote a paragraph making links at the end of their response were less effective and often gave irrelevant material that did not answer the question. Many centres have clearly reminded candidates that to gain the top marks for the synoptic question, they should consistently and clearly link their material to practical performance and make relevant links and connections both between and within study areas. Many candidates are now using appropriate technical and specialist vocabulary and write clearly and legibly. A minority of candidates make many errors in their written work that become intrusive and the sense of their arguments is lost. Such candidates need more practice in the planning and writing of extended synoptic answers.

A few candidates offended the rubric and answered questions from both the scientific focus and the socio-cultural focus, but the vast majority of candidates have clearly been well prepared by centres to answer the correct number of questions.

## Comments on Individual Questions

### Section A

#### Question 1 Sport and Exercise Physiology

- (a) In this part of the compulsory question candidates generally scored very well with many scoring full marks. The best candidates chose a relevant anaerobic athlete, usually a 100-metre runner, and identified an appropriate 'fitness component' and test. The weaker candidates chose athletes that are clearly aerobic (for example a marathon runner) and some were unable to identify a recognisable and relevant test that was relevant to the fitness component.
- (b) Although some candidates were able to draw an appropriately labelled graph to show how the 'predominant energy system' depends on the duration of exercise, many were unable to label axes correctly or to draw the peaks in the correct order. Centres are urged to include the drawing of labelled graphs as preparation for this part of the specification. When candidates are asked to sketch a graph they can use the answer booklet provided as long as the graph is clear, unambiguous and neatly drawn. The use of a ruler for example is advisable to draw the axes. Centres are reminded to advise their candidates not to use coloured pens or coloured pencils. The requirement of this part of the question was to draw a graph and those that did not, even if they gave an explanation, scored no marks.
- (c) (i) Candidates who scored well in this part, clearly stated the benefits of using 'periodisation' in designing a training programme. Some candidates had not read the question carefully and merely described the concept of 'periodisation'. As a consequence candidates missed the marks available for highlighting benefits such as 'peaking' for an event or to give variety to maintain 'motivation'.
- (ii) Those candidates who identified and explained 'macrocycles', 'mesocycles' and 'microcycles' and their role in structuring a training programme scored best. Those that scored less well merely identified some short term and long term objectives without explaining their importance in ensuring that performers reach their peak of physical condition for the competitive season. Some of the best candidates drew on their own experience and gave relevant practical examples for each cycle of 'periodisation'. A minority of candidates were clearly unprepared for such a question and Centres are reminded that there is no substitute for comprehensive coverage of the specification.



## Section B

### Question 2 Scientific Focus

#### Part 1

##### (a) **Anatomy and Physiology**

This was a popular choice for candidates. Many candidates could identify the types of joint found in the spine but did not effectively describe the types of movement that can occur at the spine. Some candidates identified the movement type but did not give examples from sport as requested by the question. Centres are urged to remind candidates to read each question carefully and to give full and relevant practical examples. This will ensure more credit towards the overall synoptic mark. The weaker candidates did not identify and explain the type of 'muscular contraction' in the two separate types of muscles and many did not identify the separate 'phases' of the movement.

The better candidates wrote a sufficiently detailed response separating their answer into upward and downward phases of the movement, which was essential to score well when explaining the action of the 'rectus abdominis'.

The description of the 'expiration process during exercise was generally poorly answered. Some candidates simply missed this part of the question out, whilst others gave a detailed description of the 'respiration process'. This showed that many did not correctly interpret the terminology used in the question.

Candidates should ensure that they are fully conversant with the vocabulary used in the specification. The better candidates fully described the process of 'expiration' as requested and correctly identified the relevant actions of the 'diaphragm' and 'intercostals' going on to explain the effects of these actions in creating higher pressure in the lungs so that more air can be forced out at expiration. The better candidates made relevant links to practical performance to score synoptic credit and effectively used the correct technical terminology throughout their answer.

##### (b) **Acquiring and Performing Movement Skills**

This was the most popular question answered and generally candidates scored well, especially in the first part of the question which required an explanation of the different aspects of 'Welford's model' of information processing. The better candidates explained each aspect fully and then gave a practical example. The input was explained quite well by candidates linking 'stimuli' and the 'environment' or the 'display', the better candidates identifying the combination of relevant stimuli. 'Perception' was less well explained with many candidates merely identifying the interpretation of stimuli.

The best candidates stated the role of 'selective attention' in 'perception' as well as the use of 'memory stores' to interpret information. The 'effect or mechanism' was understood well by most candidates and the better candidates gave a full account of the role of different forms of 'feedback' shown in the model.

The weakest candidates gave few or no practical examples and often repeated the words in the model not explaining their meaning.

When asked to explain why selective attention is so essential for optimum performance some candidates gave superficial responses using the words from the question, for example selective attention is "*attending selectively*". For candidates to score well in this part of the question they needed to highlight that 'selective attention' prevents 'cognitive overload' and that it often served to control the performer's 'arousal level'.

Synoptic credit was given when candidates linked 'selective attention' to 'attentional control' and helping to achieve 'peak flow'. Many candidates identified that 'selective attention' helps to keep distractions to a minimum and helps with the concentration of the performer.

Some of the best answers also explained that 'selective attention' was important to reduce 'reaction time' by improving anticipation. Some of the weaker candidates stated that 'reaction time' was increased rather than decreased.

Overall it was clear that candidates who had been taught to link theory to practical dealt well with this question using relevant practical examples from sport.

## **Part 2**

### **(c) Exercise and Sport Physiology**

The most effective synoptic answers for this section followed the section on anatomy and physiology because links are obviously more available. Most candidates identified the type of strength being evaluated, although some of the weaker candidates merely repeated that it was strength rather than the type of strength. For example 'explosive strength' for test 1 and 'muscular endurance' for test 2. The appropriate 'energy systems' for each test were correctly identified by most candidates.

A minority of candidates did not read the question carefully and gave explanations for both performers rather than one. The better answers identified the appropriate muscle fibre type prevalent for their chosen performer and gave a full explanation why that performer scored better, for example performer B having greater 'capillarisation', 'glycogen stores' and greater tolerance to 'lactic acid'. Many candidates gave a strength training programme which identified the FITT concept but with little specific information.

Centres should ensure that candidates get plenty of practice devising relevant detailed training programmes to develop different aspects of fitness. The weaker candidates gave vague descriptions of the training programme or gave a programme, which clearly did not relate to the development of the performer's weaker type of strength.

The physiological adaptations were recognised by many candidates with the best giving a full account of 'muscular', 'cardiac', 'vascular' and 'respiratory' adaptations.

A large amount of synoptic credit was awarded to those candidates who gave frequent practical examples and who recognised links with the material they had already identified in their anatomy and physiology answer.

**(d) Biomechanical Analysis of Human Movement**

Very few candidates answered this question. Those that did attempt it generally scored well. The better candidates made a good analysis of the hip joint as a 'lever system' and confined this to the 'upward phase'. Some candidates did not confine their answer to this phase and consequently gave a confused answer.

Candidates are reminded to ensure that they carefully read all parts of each question and get a clear idea of the requirements of each part.

The comparison of the lever system of the hip joint with a 'second-class lever' was less well done. The weaker candidates did not recognise in their responses that the class 3 lever is less efficient than the class 2 because the class 3 lever's effort is closer to the fulcrum than the load.

The better candidates compared well and gave good practical links that gained synoptic credit. Most candidates recognised that the hip has a greater range of movement than the ankle or foot.

The understanding of the concept of 'angular momentum' ranged from complete incomprehension to the very best candidates giving a full and accurate account of how a trampolinist uses this concept to complete a successful tucked somersault. These candidates effectively split the somersault up into 'phases' and explained well the 'rotational' and 'reaction forces' and the changing nature of the 'moment of inertia' as the body position changes in the movement. The better candidates made effective links with 'Newton's laws' and 'angular acceleration'. The weaker candidates made little attempt at trying to link either within or between topic areas.

**(e) Psychology of Sports Performance**

The majority of candidates who answered this question had answered the acquisition of skill question in part one and many scored synoptic credit for linking psychological material with the acquisition of skill.

Once again the good candidates gave frequent references to relevant practical examples, often drawing from their own experiences. The poor synoptic answers merely listed other aspects of the psychology of sport part of the specification in the vain hope that they were making a link. Candidates should recognise that synoptic credit is only given for links that are relevant and actually help to exemplify the knowledge points that they are making.

There was only a superficial understanding by many candidates of what is meant by 'attentional control' with many not including 'Nideffer's broad, narrow, internal, external dimensions' clearly identified in the specification. Those who scored well not only identified the aspects of 'attentional control' but also went on to give examples of each style. For example, that the 'broad style' takes into account wider aspects of the environment, whereas the 'narrow style' involves attention on very few stimuli.

The best candidates immediately saw the link between 'attentional control' and 'selective attention' material written about in part one of their answer and went on to give a well-explained practical example.

Most candidates could not fully explain how attentional styles can affect a performer's ability to enter the zone of 'optimal functioning'. There was little depth in candidates' understanding of how performers enter the zone and achieve a 'peak flow' experience. The better candidates identified that 'attentional control' can help to control 'arousal levels' to achieve the desirable 'optimum arousal level'. These candidates also identified that attention on the emotional enjoyment of the activity is likely to help the performer enter the zone as well as the need to concentrate and to avoid distractions.

Good synoptic answers also included links with anxiety management and links with the perceptual process identified in part one. Many candidates showed a good understanding of imagery but many did not answer the question by linking imagery with helping performance. The high scoring answers recognised that imagery improves concentration, raises confidence and helps to replicate the kinaesthetic feel of successful movement.

### **Question 3 (Socio-cultural focus)**

#### **(a) Contemporary Studies in Physical Education**

The vast majority of candidates who chose the socio-cultural route once again completed the contemporary issues and history questions. Few candidates answered the comparative question. There were still a few candidates who offended the rubric and completed this section as well as the scientific route.

Many candidates identified well the possible problems facing elderly people in participating in sport. Centres had prepared candidates well and recognised the needs of such groups with the best candidates linking lack of 'self-esteem' with 'stereotyping' and lack of appropriate 'facilities' and 'specialist coaching'. The weaker candidates were too superficial in their responses and restricted their answers to the perception that the elderly do not have the physical fitness to participate in sport. The better candidates then went on to identify and explain what could be done to give people with disabilities a fairer deal linked to 'opportunities', 'provision' and 'esteem'. These candidates highlighted the need to change attitudes and recognised that 'inclusion', 'positive discrimination' and the 'role of the media' can help to address the needs of such a group of people. The weaker candidates simply repeated the problems highlighted for the elderly and failed to answer the question set.

Good synoptic answers recognised links with historical aspects such as the similarities between the lack of sporting opportunities for the working classes and the contrast with public school opportunities and provision. Comparative links were made by a few but most waited until they wrote their comparative answer to make their links with UK school opportunities for sport.

### **Part 2**

#### **(b) Historical Studies in Physical Education**

The 'model course' is well understood by most candidates who described well the objectives, content and methodology of the course. Good synoptic points were made by putting the model course into context and stating its importance at the time for preparing young people to be fit for war.

There was less knowledge and understanding shown by candidates of the 1950's publications *Moving and Growing* and *Planning the Programme*. Some candidates saw these publications as the same as our own national curriculum and failed to recognise the differences in emphasis. The better candidates explained that the 1950's programmes were based on variety and movement work with methods based on problem solving thus drawing out the differences with the 1902 course and then going on to recognise that present day junior school physical education included values based on equal opportunities.

Some of the very best also explained that the national curriculum brought its own constraints of accountability and pressure. Weaker candidates did not read the question carefully enough and described secondary physical education rather than primary.

There were some good synoptic links made with the importance of inclusion in today's physical education and the encouragement of the elderly and those with disabilities to be involved in sport and recreation. Better candidates planned their answer well and wrote in paragraphs making a point and then backing up independent opinion with practical examples

**(c) Comparative Studies in Physical Education**

As in previous examination sessions, few candidates attempted this question. The higher scoring candidates made effective comparative links between either the USA or Australia with the UK. These candidates identified relevant differences between the provision of both sport and PE, identifying differing 'aims', 'ethos' and 'organisation'. Candidates generally knew more about sport in these countries than physical education.

Weaker candidates did not differentiate between sport and physical education with some showing confusion with the terminology. The best candidates recognised the extensive 'community interest' in school sport in the USA and compared this with minimal 'community interest' in the UK.

There was also a good understanding of the 'central funding' of school sport in Australia and that sport in USA's schools attracts much commercial interest.

The 'decentralised' systems of physical education in all countries was recognised by the better candidates with some candidates explaining well that this is becoming more centralised in the UK. The moderately scoring candidates often wrote well about either the USA or Australian physical education and sport but left the comparisons with the UK until the final paragraph which led to rather disjointed responses and important comparisons missed.

The weaker candidates seemed ill prepared to answer this section and showed little knowledge or understanding of sport and physical education in the USA and Australia. Surprisingly such candidates were also unaware of the 'administration' and 'status' of school sport and physical education in the UK; consequently links with the contemporary issues aspect were few and at times inaccurate. The better candidates made relevant and detailed links with the contemporary issues topic. These candidates identified relevant links, for example with 'mass participation'.

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Some picked up the theme from the contemporary issues question and explained well how minority groups in the USA and Australia often have similar barriers to participation in school sport and physical education. Weaker candidates made little or no attempt to link A/S and A2 material.

## **PRINCIPAL MODERATOR'S REPORT – UNITS 2564 & 2567**

The moderation process for coursework ran very smoothly again this year. Seeing the many excellent candidates on view was made all the more pleasing by the accuracy of Centres' assessments. The moderating team are to be congratulated on managing with some 16500 AS and 9500 A2 candidates.

The smooth running of the moderation process is greatly helped by the many teachers who host and arrange moderations as well as those who willingly contribute and actively participate on the day. The moderating team thanks each and every one of you.

The submission of paperwork was a little hampered by Easter being so early and the submission date of 31<sup>st</sup> March falling within the Easter break.

The apportionment of Centres to Moderators continues to be problematic as a result of some Centres continuing to delay submitting their provisional entries. Centres are reminded that their provisional entry not only leads to the allocation of a moderator but also generates the forwarding of assessment paperwork and general moderation details.

### **Comments on coursework components:**

#### **Practical assessments**

Generally, the accuracy of Centres' assessment of practical activities was good. It is pleasing to note that where there was a need to adjust Centres' assessments last year, Moderators advice had been taken on board.

There is strong evidence to suggest that the majority of Centres are carrying out internal standardisation, as is required by OCR. This ensures that all candidates, in all Centres, are treated equitably. This is particularly important where Centres have activities with small numbers of candidates. It is often this situation which results in assessments being inaccurate.

It was pleasing to note that many Centres had taken on board the advice given as to the assessment of Rounders and Mountain Walking. Generally, assessment in these activities was more realistic. Centres are reminded that where activities are assessed by outside instructors or coaches, they must be standardised by the teacher who is responsible for A Level Physical Education to ensure parity with other activities in the Centre.

It is becoming apparent that some Centres are exploring activities in which they believe candidates can achieve a high level of skill and tactical awareness in a short period of time. In these cases Centres should be reminded that candidates who are assessed in these activities should be assessed at comparable standards to candidates assessed in other activities within the Centre. When assessing these activities it is important that the banded assessment criteria are applied to determine:

1. The level of acquired and developed skills
2. The level of success in selecting and applying advanced skills
3. The ability to maintain technical accuracy, control and fluency under pressure
4. The ability to introduce appropriate tactics and strategies and tactics
5. The overall level of performance

In addition, at A2 the candidate needs to exhibit these in a full competitive situation and in some cases their level of representation can be indicative of their level of assessment.

In these activities internal standardisation should enable candidates to be accurately placed in the appropriate band and it is essential that the banded criteria are applied. In addition to the banded criteria, Centres are reminded that activities also have specific assessment criteria that candidates must meet. Moderators have reported concerns that some Centres when planning their Mountain Walking expeditions are not meeting these criteria.

These criteria include:

- The use of roads - limited to that necessary to move between areas of open country.
- Terrain - should allow candidates to fulfil the assessment requirements, being wild country where walkers are dependent on themselves and remote from any immediate help. Suitable venues are identified in the coursework guidelines.
- The candidate will maintain a detailed log, which covers both the planning of the expedition and the expedition itself.

Another activity in which candidates are failing to meet the criteria is Dance. Centres should be aware that where candidates fail to meet the assessment criteria identified for the activity there is a risk that marks awarded could be reduced.

### **Evaluation and Appreciation**

Again, it was pleasing to listen to many excellent candidates who had clearly been well prepared and worked hard to perfect this aspect of their assessment. They were confident and eloquent. They clearly worked to a plan and knew what was expected of them. They knew that they had to talk and offer opinions and information on the following areas:

1. Identify the phases with which to analyse the live performance they were observing
2. Identify the strengths of the performance they were observing
3. Identify the major weaknesses of the performance they were observing
4. Select a major weakness and devise an action plan to improve that weakness
5. Apply relevant theory from Physiological, Psychological and Socio-cultural aspects to support their evaluative comments and action plan

The performance which they observe will be of one of their two assessed activities. In the case of activities such as athletics and swimming, this will be deemed to be the event or stroke in which they have been assessed.

It is important that candidates work to a plan and that everything they say should be relevant to the performance that they are observing at that time. Whilst it is expected that candidates will have prepared themselves for this part of their assessment, it is also essential that they exhibit the ability to select from their knowledge, the aspects which are relevant to the performance that they are observing. This is very similar to the candidate who prepares well for a written examination i.e. reads the question and then selects the relevant information from their bank of knowledge in order to answer that particular question. In the case of Evaluation and Appreciation, the question is the particular performance that the candidate is observing.

Centres should note that whilst observing the performance, the candidate can make notes on the performance which they can then use in their analysis. They cannot, however, bring prepared notes with them.

Some candidates have prepared well but are unable to select the relevant material from their bank of knowledge and apply it to the performance. This then becomes a well rehearsed monologue with the candidate simply regurgitating their prepared material. Whilst this is part of the candidates development of the skill of Evaluation



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and Appreciation they need to go that one step further and develop their ability to select the pertinent knowledge which is relevant to the performance they are observing at that time.

Some candidates prepare an action plan for a designated fault and then want to deliver this plan even if the performer they are observing does not have this fault. This is obviously not acceptable.

The assessment of Evaluation and Appreciation is an oral response. There seems to be a tendency for some Centres to carry it out in a classroom with candidates using white boards, marker pens etc. This should not be the case and is putting candidates under unwarranted pressure.

In terms of the amount of information candidates need to offer some Centres are becoming unrealistic in their expectations of candidates. Earlier in this section, the plan which candidates should work to was identified. They are expected to support their evaluative comments and action plan by applying relevant theory from physiological, psychological and socio-cultural aspects. The key here is that the theory should be relevant to the evaluative comments they have made and the action plan they prescribe. It is not necessary for the candidate to talk about every theoretical aspect they have covered on their course and realistically their response should last approximately 15 minutes.

Candidates should be made aware of the links between Section B of their AS Personal Performance Portfolio and their A2 Evaluation and Appreciation. This should be the case when candidates are talking about their action plan which needs to have a detailed timescale, detailed coaching points and detailed practices.

It should be further noted that this aspect of the assessment is a skill that needs to be developed by candidates. It needs to be introduced in parts, practised and refined and is a transferable skill enabling candidates to apply theory to practical thereby assisting them in their written papers.

### **Documentation**

The standard of documentation received from Centres continues to improve. Where Centres made mistakes the notable weaknesses in documentation were:

1. Failure to submit a mark sheet with the Personal Performance Portfolios
2. Failure to round up or down to whole marks in the final column of assessment sheets
3. MS1 forms – not shading in the mark grids and completing the mark column
4. Not putting Christian names on forms thereby allowing moderators to determine candidates' gender
5. Not checking the additions on the A2 final practical activity sheet thereby identifying mistakes
6. Making errors in transcribing marks from the final practical activity sheet onto the MS1 form
7. Not using the latest OCR forms
8. Not rounding up or down to whole number marks e.g. 56.5 becomes 57

It should be noted that with the practical assessments in both 2564 and 2567 Centres do **not** need to submit a Centre authentication form as an additional statement has been put on the final practical activity assessment forms which the teacher responsible signs. This signed statement is the Centre's authentication.

### **Video evidence**

Video evidence is now essential in the moderation of practical activities. Centres are reminded of their obligation to produce video evidence and to provide when requested.

You should retain sample video evidence demonstrating top, middle and bottom levels of performance for all activities. All activities at AS Level submitted for the 15<sup>th</sup> May deadline **MUST** be supported by evidence which must be sent to the moderator together with the appropriate assessment forms. At A2 this must include evaluation and appreciation and include the performance being observed.

Increasingly, video evidence is being requested at both AS and A2 levels where Centres have small number of candidates in a diverse range of activities and Moderators are not able to accommodate the activities at moderation. Centres should also be aware that Moderators may request video evidence when candidates, for a variety of reasons, fail to attend moderation.

When producing video evidence Centres should bear in mind the following points:

1. The format which it is produced in - it should be VHS or DVD format
2. That candidates can be clearly identified and linked to the assessment sheet - identification should be by numbered bibs etc. and should be described by a commentary
3. That candidates are recorded in viable assessment situations

### **Special consideration**

Special consideration can be applied for when candidates, for a variety of reasons, do not complete their practical assessments. Usually, a candidate would need to have completed two thirds of their assessment to apply for special consideration. When applying for special consideration it is essential that Centres supply as much information as possible to allow for a mark to be awarded. This could include an indication of the mark the Centre would have awarded if the candidate had been assessed as well as identifying candidates of a similar standard in that activity.

This further emphasises the need for Centres to assess continuously rather than just at the end of a practical unit so that in the event of an injury to a candidate there is some indication of their likely assessment.

Centres should note that when candidates fail to attend moderation and submit a special consideration form they should clearly indicate this on the form stating the reason for the non-attendance.

### **Moderation**

Centres are reminded that moderation is part of the examination process and when requested, attendance is compulsory. Candidates who do not attend moderation without a valid reason can be marked absent and awarded zero marks. Prior to this it is likely that such candidates will be offered the opportunity to attend a further moderation which may necessitate travelling to another area.

If candidates requested by the Moderator are unavailable the Moderator should be informed immediately so that alternative candidates can be identified. Candidates who are injured or ill may be asked to produce a medical certificate and at A2 injured candidates maybe required to attend to be moderated in Evaluation and Appreciation.

Centre should prepare candidates for moderation ensuring that they are aware of the process and the demands that will be made on them. Any A2 candidate may be required to be do an Evaluation and Appreciation at moderation.

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It is essential, for both moderation purposes and health and safety issues, that candidates are accompanied at moderation by the member of staff responsible for the assessment of practical activities. That member of staff is responsible for their candidates, they are not the Moderator's responsibility.

Our thanks, once again, go to the teachers and candidates who made the moderation experience so enjoyable.

### **Personal Performance Portfolio**

The portfolio has now become relatively stable with no changes in content or marking criteria. The marking of the portfolios, as was the case last year, was based on applying the banded criteria and awarding whole numbers marks. Most Centres have adjusted to this method and recognise its value in saving time and generally making marking less onerous.

Once again, many portfolios in which candidates had put a great deal of time and effort were seen at moderation and these were rewarded with high marks. Exemplar material from last year's standardisation meeting was made available at practical INSET meetings and many Centres appear to have benefited from this. Similar exemplar PPPs will be available at INSET meetings this coming year and it would be beneficial to Centres who are still coming to terms with the production and marking of this aspect of coursework to make use of this opportunity.

It is extremely disappointing that there are still some Centres not working to current PPP criteria. Some Centres persist in adhering to the initial criteria produced for 2001 whilst some appear to give candidates little or no guidance at all. In all these cases it results in candidates producing work into which they have put a great deal of time and effort but get little or no credit. It is essential that Centres work to the latest PPP guidelines (see the OCR website.)

It should be stressed that candidates can be given no credit for including material that is not required by the criteria. In fact, the opposite is the case as in the quality section of the banded criteria indicates that one of the measures is that "the document is informative and **concise**." By including additional material the portfolio cannot be considered to be 'concise' thereby denying the candidate access to the top two bands in the grading of the quality of the portfolio.

The following represents some general comments on the portfolios this year.

### **Section A**

Application of Anatomical and Physiological Knowledge to Improve Performance

It is now only necessary to cover 'speed', 'strength', 'stamina' and 'suppleness' in the physical fitness aspects.

Good candidates:

- covered all four aspects,
- explained in detail what they were,
- applied them to their activity
- explained in detail their importance to that activity

Some candidates covered other aspects of fitness e.g. 'somatotypes', 'agility', 'co-ordination', 'reaction time'. They could be given no credit for this additional work.

Candidates need to give details of their own personal 'warm up' and 'cool down' for the activity that they focussed on ensuring that all components are covered.

Good candidates:

- Covered both 'warm up' and 'cool down' in two separate sections
- Gave a detailed description of their personal warm up which included: details of the pulse raising activities, details of the type of stretches together with

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diagrams of the actual stretches together with an indication of how long they were held for, details of the skill related exercises they did

- Gave a detailed description of their personal 'cool down' which included: details of their pulse lowering activities, details of the type of stretches they did together with the actual stretches and the length of time they held them for.

They then went on to clearly identify the effects of both their 'warm up' and 'cool down' on:

- i) the speed and force of muscular contraction
- ii) the vascular system.

Some candidates failed to include any coverage of their 'cool down' and therefore lost marks. The same was true of those candidates who failed to cover all aspects of their 'warm up' and 'cool down' and indeed those who failed to include sufficient detail.

### **Acquiring and performing movement skills**

Candidates scoring high marks identified a single skill from their activity, broke the skill down into its relevant phases and gave relevant, detailed coaching points for each of the phases.

Some candidates produced coaching points for several skills but gained no marks for this extra work.

Good candidates then produced detailed practices. Candidates took the skill that they had previously given coaching points for, and progressed from a simple closed situation through several steps until eventually arriving at a normal open competitive situation. Often these were accompanied by explanatory diagrams.

Common mistakes included:

- i) candidates not using the same skill in their progressive practices as the one which coaching points had been identified for - this was a rubric infringement
- ii) candidates describing practices which were intended to correct faults rather than develop skills
- iii) practices that were not realistic
- iv) including theoretical material not required e.g. details of methods of practice, whole, part, progressive; classification of skills, motivational theories - no credit could be given for these

### **Contemporary Studies in Physical Education**

Governing body information – candidates scoring high marks showed evidence of good research that produced information which they then took out the relevant parts and applied it to answer the questions posed in the six parts of this section.

Some candidates identified the International governing body when ideally they should give information on the National governing body. E.g. Welsh Rugby Union, Scottish Football Association, Football Association.

Most candidates were able to identify the name, address, phone and website address of their governing body.

Good candidates identified the regional structure of the governing body in terms of how it is organised for the administration of the activity. Weaker candidates simply identified the regional competitions which are required later in this section.

Whilst coaching awards were identified by most candidates, the stronger candidates described the content of each award and the levels at which holders of that award could coach. Weaker candidates lacked detail and often had simply downloaded a list of awards from the internet.

Good candidates correctly interpreted promotional/grass root schemes as those schemes by which the governing body attempts to attract people, usually young people, to become involved in their sport and to improve their skill levels. They identified the schemes and gave details of their content and rewards for participants. Some weaker candidates misinterpreted the term Promotional/grass root schemes and talked about the way teams progress upwards in a hierarchical league structure.

Most candidates identified the competitive structure of their activity. Stronger candidates gave information on regional and national competitions organised by the governing body. Weaker candidates simply listed any competition that their activity held and in some cases, particularly football, included international competitions.

Most candidates identified doping control and testing procedures but this area exemplified the problem of many weaker candidates who simply down loaded information from various web sites leaving teachers and Moderators to sift through for relevant information. Good candidates extracted the pertinent information from the internet sites they accessed. Weaker candidates simply included it all in the hope that it was relevant.

Most candidates included a description of the performance pyramid together with a diagram and most were able to identify and justify where they were presently placed. Good candidates then went on to explain/discuss how they had been helped or hindered in achieving this status. This may have included the governing body, parents, teachers, coaches, access, facilities etc. Weaker candidates made no reference to how they had been helped by the governing body and simply identified their position without any explanation thereby not covering this aspect.

This section was then marked on a 'best fit basis against the following criteria:

<b>5-6</b>	The candidate has an excellent awareness of the physiological factors that affect movement production and of the impact of coaching and learning on performance. They are highly informed about agencies influencing opportunities and provision.
<b>4-5</b>	The candidate has a good awareness of the physiological factors that affect movement production and of the impact of coaching and learning on performance. They have detailed knowledge about agencies influencing opportunity and provision..
<b>2-4</b>	The candidate has an adequate awareness of the physiological factors that affect movement production and of the impact of coaching and learning on performance. They have adequate knowledge about agencies influencing opportunity and provision.
<b>1-2</b>	The candidate has some awareness of the physiological factors that affect movement production and of the impact of coaching and learning on performance. They have basic knowledge about agencies influencing opportunity and provision.
<b>0-1</b>	The candidate has limited awareness of the physiological factors that affect movement production and of the impact of coaching and learning on performance. They have superficial knowledge about agencies influencing opportunity and provision.

Candidates should be awarded a whole mark assessment. To be placed in the top bands the candidate MUST have covered all the required areas in detail. It should be emphasised that candidates cannot be given credit for material/information, however good it is, that is not required by the PPP criteria.

## Section B

### Identification of strengths and weaknesses

Candidates focus on their own performance and identify a realistic perception of their strengths and weaknesses.

They are required to look at the following aspects of their own performance:

- skills
- tactics/strategies
- fitness aspects

Candidates are also required to explain how they have arrived at their conclusions.

Good candidates covered all three areas in detail. They identified their strengths and weaknesses in each area and explained how they been able to determine them. This explanation often involved having videoed their performance and analysing it themselves or having their teacher/coach analyse it.

For fitness, they had utilised standardised tests, compared themselves to the norms and contextualised this information in terms of their activity.

They covered the basic skills and tactics of the activity together with all the four S's of fitness together with other aspects of fitness relevant to their activity.

Weaker candidates often simply listed their strengths and weaknesses, did not evaluate all three areas and did not explain how they had arrived at their conclusions.

This section is assessed against the following criteria:

<b>5-6</b>	The candidate has an accurate perception of their performance.
<b>4-5</b>	The candidate has a good perception of their performance.
<b>2-4</b>	The candidate has a sound perception of their performance.
<b>1-2</b>	The candidate has a limited perception of their performance.
<b>0-1</b>	The candidate has an inaccurate perception of their performance.

The Centre should also take into account the accuracy of the candidate's perception of their strengths and weaknesses. To be placed in the top bands the candidate must have covered both strengths and weaknesses in skills, tactics and fitness as well as explaining how they have arrived at their conclusions.

### Action planning

Candidates receiving high marks in this section did so by covering all the aspects identified in the criteria and providing detailed information. These candidates provided a logical plan in which sections followed a rational path. The conclusion of which was an application of their evaluative method to establish whether or not their goal had been achieved.

There are six areas in the action plan all of which must be covered in detail.

1. Clear, realistic, achievable goals

The strong candidate identified a goal or goals which conformed to the SMART principles. They were specific i.e. if working on stamina they would identify that they were going to achieve level 7.5 on the Multi – stage fitness test. Weaker candidates would simply say that they were 'going to improve their stamina.' and this is not specific enough.

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If candidates identify a skill which they wish to improve then they need to identify a method by which they can measure it and identify a specific target on this measure.

It is important that when selecting their goals that they are related to the evaluation already conducted.

Weaker candidates were very vague in their goals often identifying goals which it was difficult to measure e.g. to improve my fitness.

### 2. Timescale

Good candidates identified the length of their action plan in weeks, the number of sessions per week, together with the length of each session.

### 3. Method of achieving the goals

Strong candidates covered this area in great detail. They included detail of exactly what they would do to achieve their goal. This included details of exercises, sets, repetitions, weights etc. for fitness programmes together with progressions etc. When the goal was skill related, they would include detail of the practices they would undertake, the progressions they would make, the coaching points they would focus on, the number of times they would do a drill etc.

Weaker candidates covered this area very superficially. Often their methods were unrealistic, not specific to the activity concerned and generally lacked detail.

### 4. Record of implementation of the plan

This area, if the method of achieving the goals has been covered in detail, could simply be a record/diary of the candidate applying their action plan. Good candidates included a subjective comment on how they felt each session had gone and when they felt it appropriate to progress.

Weaker candidates simply listed their sessions often in a table form with little detail and no evaluative comment.

### 5. Method of evaluating the action plan

In this section, the candidate identifies how they are going to measure whether or not they have achieved their goal. Some goals can be measured by objective tests which in many cases are established, recognised and standardised. E.g. The Multi-stage fitness test for 'stamina', one repetition maximum for 'strength', 30 metre run for 'speed'.

Strong candidates identified a clear and concise method by which they would identify whether or not they had achieved their goals. Weaker candidates often missed this out.

### 6. Record of results

This is simply a record of the candidate applying their method of evaluating their action plan identified in point 5.

Major weaknesses in this section were candidates:

- not covering all six aspects
- having goals which were vague and unspecific
- a general lack of detail particularly in their method of achieving their goals

This section has the largest weighting and is assessed against the following criteria:

<b>10-12</b>	The candidate has a comprehensive understanding of the factors that interact and affect performance resulting in the implementation of a highly successful strategy to improve their practical performance.
<b>8-10</b>	The candidate has a sound understanding of the factors that interact and affect performance resulting in the implementation of a very good strategy to improve their practical performance.
<b>4-8</b>	The candidate has some understanding of the factors that interact and affect performance resulting in the implementation of an appropriate

	strategy to improve their practical performance.
<b>2-4</b>	The candidate has limited understanding of the factors that interact and affect performance resulting in the implementation of a basic strategy to improve their practical performance.
<b>0-2</b>	The candidate has an inadequate understanding of the factors that interact and affect performance resulting in the implementation of a flawed strategy to improve their performance.

### Quality of the portfolio

#### Review

The candidate gives their subjective opinion of as to the quality, effectiveness and general worth of the action plan as a whole. Candidates scoring highly in this section discussed/explained their opinions as to their perceived value/worth of their action plan and whether or not they had achieved their goal and if not why not. They also talked about the benefits of their action plan to their performance of their activity in general. They also included an opinion as to what parts of their action plan they would change if they were to use it again. Many weaker candidates did not complete this section.

The following areas of the Quality section are the teacher's judgement of the portfolio:

#### Candidate's understanding and depth of knowledge

An assessment of the candidates' general appreciation and understanding of the theoretical areas covered in all sections of the portfolio and their ability to apply it to their activity within the portfolio.

#### Originality

The candidates ability to research information and to extract the sections of that information which are relevant to their portfolio. Strong candidates will customise the information to suit their needs. Weaker candidates tend to include all the information that they have found and also fail to acknowledge their source.

#### Presentation

An assessment of the general structure and appearance of the portfolio. Neatness, conformity to the prescribed structure, presence of authenticity statement, contents page, bibliography etc.

This section is assessed against the following criteria:

<b>5-6</b>	The document is highly informative and concise.
<b>4-5</b>	The document is informative and concise.
<b>2-4</b>	The document is accurate and sound in most areas.
<b>1-2</b>	The document is sound in most areas.
<b>0-1</b>	The document is superficial and of limited substance.

The presence of irrelevant material will deny access to the top two bands of this section as they require the portfolio to be 'concise.'

The portfolio is now a fairly stable document, exemplar material is available and candidates should have a clear plan of what they are expected to produce. It is important that candidates follow the prescribed guidelines as it makes it easy for them to produce the portfolio, easier for teachers to mark it and easier for it to be moderated.

Centres are reminded that each portfolio should have an authentication statement signed by the candidate included at the front of the portfolio. The Centre itself also needs to submit a Centre authentication statement which should be included with the



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PPP assessment sheet. It is essential that when Centres submit their portfolios to the moderator that they include their Centre portfolio assessment mark sheet.

Generally all those involved in the teaching and assessing of units 2564 and 2567 should be pleased with 2004-5 as there were many outstanding practical performances on view and many extremely informative portfolios produced.

**Advanced Subsidiary GCE (Physical Education) (3875)  
June 2005 Assessment Session**

Unit Threshold Marks

<b>Unit</b>		<b>Maximum Mark</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>u</b>
<b>2562</b>	Raw	60	46	41	36	31	27	0
	UMS	120	96	84	72	60	48	0
<b>2563</b>	Raw	45	34	31	28	25	22	0
	UMS	90	72	63	54	45	36	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	<b>Maximum Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>U</b>
<b>3875</b>	300	240	210	180	150	120	0

The cumulative percentage of candidates awarded each grade was as follows:

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>U</b>	<b>Total Number of Candidates</b>
<b>3875</b>	12.34	28.24	48.67	69.62	86.74	100	13235

**Advanced GCE (Physical Education) (7875)  
June 2005 Assessment Session**

Unit Threshold Marks

<b>Unit</b>		<b>Maximum Mark</b>	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>u</b>
<b>2565</b>	Raw	45	30	27	24	21	19	0
	UMS	90	72	63	54	45	36	0
<b>2566</b>	Raw	60	46	42	38	34	30	0
	UMS	120	96	84	72	60	48	0

Specification Aggregation Results

Overall threshold marks in UMS (i.e. after conversion of raw marks to uniform marks)

	<b>Maximum Mark</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>U</b>
<b>7875</b>	600	480	420	360	300	240	0

The cumulative percentage of candidates awarded each grade was as follows:

	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>U</b>	<b>Total Number of Candidates</b>
<b>7875</b>	13.24	32.25	56.35	78.80	95.37	100	9931





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Registered Office; 1 Hills Road, Cambridge, CB1 2EU  
Registered Company Number: 3484466  
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