

Physical Education

Advanced GCE **2565**

Physical Education: Historical, Comparative, Biomechanical and Sport Psychology options

Mark Scheme for June 2010

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

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Question

Mark

Section A - Historical Studies in Physical Education

- 1 (a) (i) Many pre-industrial popular recreations developed into rational recreations, for example, pedestrianism developed into track and field athletics.

Outline features of early pedestrianism.

[4]

4 marks in total:

1	(footmen)	footmen employed as messengers / as competitive runners
2	(wagering)	wagering
3	(patronage)	gentry patrons looked after lower class runners/set up races/provided 'purses'/promoters/sponsors
4	(festival)	festival occasions/spectator attractions/highly organised or structured
5	(example)	Robert Barclay Allardice / Deerfoot (Native American) or other suitable example/1000 miles in 1000 hrs/hopping races around Hyde Park or other suitable example
6	(simple)	cheap/simple
7	(violence/corruption)	cheating common/match fixing/violence among crowd/pedestrianism gained bad reputation
8	(gentlemen)	gentlemen amateurs competed to test themselves.
9	(rules)	rules established by organisers/more organised than most other popular recreations
10	(rewards)	prize money for competitors/fame/status/occupational/rags to riches
11	(links...)	linked attractions eg horse racing or prize fighting

- 1 (a) (ii) Describe the emergence of track and field athletics.
4 marks total:

[4]

1	(AAC)	Amateur Athletics Club (AAC) or governing body formed (1866)/clubs for gentlemen amateurs
2	(amateurs)	middle class amateurs/amateurs participated for love or intrinsic rewards/amateurs could not earn money from running/amateurs did not train seriously or aim to win at all costs/amateur athletics elitist
3	(exclusion clause)	exclusion clause/no 'mechanic artisan or labourer' could join the governing body
4	(professionalism)	professionals ran for a living or to make money/professional athletics developed in cities/sports days organised by local promoters
5	(corruption)	corruption or cheating in professional athletics/accept suitable example eg conspiracy by promoters
6	(facilities)	most big cities had a track/ spectator attraction/urban sports festival took the place of rural fairs
7	(clubs)	cross country/harrier clubs founded for working class/harrier clubs evolved from hare and hounds
8	(Olympic Games)	Modern Olympic Games established/impact of Baron Pierre de Coubertin/games to promote international relations or friendship among youth

- 1 (b) (i) The English public schools went through three stages of development. By stage three it was widely believed that playing team games promoted desirable values such as team work. Describe the nature of public school sports and pastimes in stage one of development before the reforms of headmasters such as Dr Thomas Arnold. [3]

3 marks in total:

1	(boy culture)	'boy culture'/organised by and for the boys/no master involvement
2	(time)	Played in own time
3	(not organised)	low levels of organisation/no leagues/no cups/no competitions/no fixtures/no special kit/no special equipment
4	(not skilful)	low levels of skilfulness/no coaching/no coaches/often violent/emphasis on force not skill
5	(pop rec)	institutionalised popular recreation/occasional
6	(no specialist Facilities)	using the natural environment eg rivers/fields/no specific facilities/use of off-site areas
7	(childlike)	Some childlike games and pastimes eg running, spinning tops, playing with hoops
8	(adaptation /adoption/ versions)	activities adapted/adopted from home (eg hare and hounds/mob football/cricket)/Non-local nature of schools led to different versions

- 1 (b) (ii) Identify four values other than teamwork and explain how each could be promoted through playing team games [4]

4 mark in total: sub max one if no explanation given.
Mark first four attempts only.

1	(physical endeavour)	physical endeavour / doing your best / trying hard / never giving up eg even if losing heavily.
2	(moral integrity)	Sportsmanship / fair play / self discipline / honour / etiquette eg taking part thought to be more important than winning / even if things not going your way in the game.
3	(loyalty)	loyalty to house / school eg through (working together and) representing them against others.
4	(courage)	showing courage / manliness / bravery eg against strong opposition or carrying on when injured.
5	(leadership)	Leadership eg through captaining the team/response to leadership or authority eg by obeying captain.
6	(skill)	Development of skill / physical prowess eg cricket skills as bowler or rugby skills as place kicker.
7	(health)	Health / stress relief eg a welcome change from academic work.

Question

Marks

- 1 (c) Explain how the industrial revolution restricted opportunities for the lower class to take part in their traditional sports and pastimes in the first half of the nineteenth century. Explain how opportunities improved in the second half of the century.

[6]

6 marks in total: Levels mark scheme.

Level 3: 5-6 marks

A comprehensive answer showing very good knowledge and understanding.

A number of well explained or developed points.

Clear differentiation and good balance between first and second half of century.

Level 2 : 3-4 marks

A satisfactory answer showing good or satisfactory levels of knowledge and understanding, with some explanation/development especially at the top of the level.

Both halves of century addressed though may lack balance between first and second half.

Level 1: 1-2 marks

A limited/superficial answer, with little explanation/development.

Answer likely to be predominantly descriptive.

Only one half of century addressed.

Indicative content:

First half of the century		
1	(space)	loss of space/facility
2	(holidays)	decrease in public holidays
3	(time shift)	shift from seasonal time to machine time/more structures lifestyle
4	(work hours)	work for 12 hour day/longer work hours
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 or hygiene provision/disease/no energy for play
7	(loss of rights)	loss of rights/could not take part in previous activities eg mob football, blood sports/increased law and order/effective police force by mid century/RSPCA
8	(acceptance)	'old' ways no longer acceptable to emerging middle class
Second half of the century		
9	(physical)	cleanliness/hygiene/health improved
10	(time)	factory Acts improved conditions/opportunities for sport/Saturday 1/2 day
11	(middle class)	the emergence of the new middle class M C in positions of authority. New middle class attitudes/new ways of behaving and playing/the civilising process/old ways of playing changed.
12	(Public Schoolboys)	the Influence of ex-Public Schoolboys in industry/the Church/local Government/new ways of and reasons for taking part.

13	(Athleticism)	values of Athleticism being spread to lower classes.
14	(Patronage)	Industrial patronage/provision for sport by wealthy industrialists eg provision of public parks for recreation in late 19th century/development of factory teams/other recreational opportunities
15	(excursion trips)	excursion trips provided by some factory owners/ trips to the seaside.
16	(church)	increased involvement of Church/acceptance and encouragement of sports and games by Church/Sunday school teams
17	(transport)	improved transport/communications/influences distance spectators or players could travel.
18	(cost)	cheaper to play/travel
19	(professionalism)	Broken time payments / professional opportunities
20	(technology)	Stadia / equipment changes

Question	Description of PASE (sub max 3)	Mark
2 (a) (i)	Why is Outdoor Education an important subject in Australian High Schools?	[3]

3 marks in total:

1	(climate)	Favourable to outdoor lifestyle eg beach culture
2	(wilderness)	Genuine wilderness exists/uncharted territory no population
3	(environment)	Outback and beach environment
4	(survival)	Necessary in a country with inhospitable climate and terrain
5	(frontierism/Bush culture)	Outdoor Education experiences reflect frontier/bush culture
6	(nationalism)	Pride in country/a chance to show the beauty of the country
7	(colonialism)	Influence of 'Motherland' and traditions of outdoor activities
8	(exam)	Outdoor Education is an examined subject
9	(educational value)	Development of skills/self discovery/development of the whole person

2 (a) (ii)	Describe the Australian schools initiatives SEPEP and PASE.	[4]
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Description of SEPEP (sub max 3)

1	(content)	Skills and performance/games sense
2	(time)	100 mins PE and 100 mins sport per week
3	(government)	A government requirement/government funded
4	(framework)	Loose framework/curriculum/adaptable/teacher has choice
5	(fair play)	Emphasis on fair play
6	(competition)	Fixtures/competition/tournaments
7	(competition)	Intra school sports/games in lesson time
8	(excellence)	Excellence not a priority
9	(non-participants)	Non-sporting roles/jobs in administration and officiating

Question

Mark

- 2 (b) (i) In French schools what are Transplantee classes? Describe the benefits of these classes to French school children.

Explanation of Transplantee classes (sub max 1 mark)		
1	(transplanting)	Taking children from classroom to area of outstanding beauty/scenic
2	(outdoor education)	Primary school outdoor activity programme
3	(classes)	Vert, neige and mer/countryside, snow and sea
Benefits (sub max 2 marks)		
4	(skills)	Learn new skills
5	(intellectual)	Classroom skills/academic skills
6	(naturalism)	Introduction to the outdoors/le plein air
7	(nationalism)	Promotion of national culture/love of country
8	(socialisation)	Working with others/friendships
9	(spiritual)	Happiness/achievement
10	(Instrumental)	Transplantee classes are instrumental in introducing children to outdoor education

[3]

Question

Marks

- 2 (b) (ii) Describe one of the following French initiatives, either the Union Nationale du Sport Scolaire (UNSS) or Primary Sports Schools [4]

4 marks in total:

Description of UNSS – 4 marks from		
1	(sport provider)	Sport for all children/all are included/broad participation
2	(government)	Government controlled/funded/central organisation
3	(coaches)	Sports coaches employed
4	(teachers)	Teachers work alongside coaches
5	(community facilities)	Community facilities/joint use provision
6	(fixtures)	Mid week/Wednesday fixtures
7	(intellectualism)	School/ academic work must not suffer/Saturday school
8	(excellence)	Improve standards/teams of international status
9	(fixtures)	Organise sports fixtures/competitions
10	(non sporting roles)	Scope to learn administrative skills / organisation skills
Description of Primary Sport Schools – 4 marks from		
11	(sport provider)	Primary schools that specialise in delivering sports
12	(mission)	To provide sporting experience not to produce elite/champions
13	(funding)	Government funding
14	(facilities)	Share/Joint Provision/exceptional standard. (Good standard = do not accept)
15	(specialist coaches)	Yes/coaches work alongside PE teachers
16	(timetable)	Extended day/integrated day to allow extra sports participation
17	(single sport)	Often/emphasis tends to be gymnastics
18	(multi sport)	Sometimes/volleyball, basketball and handball
19	(non selective)	Open to all children/ability is not important
20	(intellectualism)	Activities do not compromise academic progress/activities shape positive academic attitude/transfer of application to class

Question		Mark
2 (c)	Explain how the Ivy League Colleges helped to develop American Grid Iron Football and explain why it is a popular sport in U.S.A. 7 marks	[7]

Levels Marked**Level 3: 6-7 marks**

Responses will explain how Ivy League helped to develop grid iron football and will fully explain the factors as to why American Grid Iron Football is popular.

Level 2: 3-5 marks

Candidates may offer a description as to how Ivy League helped to develop grid iron football but will provide a satisfactory explanation as to why American Grid Iron Football is popular. At the top of this level some detail in the explanation is expected.

Answers rely on description rather than explanation.

Level 1: 1-2 marks

At the top of this level explanation is attempted but answers rely on description rather than explanation.

Question 2c
Indicative content

Explanation of development in Ivy League

1.	(tradition)	Sport was a tradition/feature of Collegiate system! Ivy League was an early stimulus of USA sport.
2.	(origin).	Grid iron first established in Ivy League Colleges
3.	(adaptation).	Ivy League Colleges adapted grid iron from rugby
4.	(rules)	Rules formalised at Ivy League Colleges/eg forward pass legalised
5.	(Influence)	Ivy League was the major influence on the development of grid iron football.
6.	(culture)	Adapted/formulated a game in line with modern culture/an aggressive game

Explanation of the popularity of grid iron football in USA

7.	(culture).	Suits the modern culture.
8.	(entertainment)	The game is considered as entertainment
9.	(adapted)	Adapted to match American interests/fulfilled a need/adapted for America.
10.	(sensational)	Dramatic action! all action! intense/end to end game
11.	(scoring)	High scoring
12.	(commercial)	Suits the market! a source of money making! a good product for television/ medial sponsors
13.	(media)	Strong media promotion
14.	(Lombardian).	Promotes the Lombardian ethos / no draw
15.	(physique)	Ideal for large players
16.	(aggression)	Capacity for aggression/violence
17.	(ethnic)	Widespread ethnic involvement! adopted/popular with ethnics
18.	(role models)	Produces role models/ superstars
19.	(frontier)	Reflection of the frontier spirit
20	(Dream).	Gateway to the Dream/spectators can live the Dream through team success/vicarious achievement / Rags to Riches for players

Quality of Language

Three marks are available for the quality of Written Communication.

- High:** A well reasoned, well ordered developmental explanation.
In clear, concise and 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**

Question

Marks

- 3 (a) (i) Fig 1 shows the relationship between the velocity and time of the descent of a ski jumper down the ramp prior to take off.

Describe the motion of the ski jumper during the descent and use Newton's First Law of Motion to explain the shape of the curve between points B and C.

[4]

4 marks in total:

1.	(A-B)	acceleration/increase in speed/velocity
2.	(B-C)	constant velocity/speed
3.	(Newton 1)	'The skier will move at a constant velocity unless acted upon by an external/unbalanced force
4.	(Explanation B-C)	All forces cancel each other out/net/resultant force is zero

- (ii) Identify the forces acting against the ski jumper between points B and C.

[5]

Explain the methods used by the ski jumper to reduce these forces.

5 marks in total:

Identification of forces - submax 2:

1.	Air resistance/fluid friction.
2.	Friction (between skis and snow)

Explanation of methods used to reduce forces - submax 3:
(must have method and reason)

Method	Reason
3. Body (tuck) position	Reduce frontal/forward cross sectional area
4. Body (tuck) position	More streamline/reduce drag behind skier/teardrop profile
5. Special clothing/lycra suits	Reduce surface friction effects between air and skier
6. Wax skis	Reduce friction between skis and snow

Question

Marks

- 3 (b) During the flight phase a lift force can act on the ski jumper. Explain how this force is generated and describe its effect. [5]

5 marks in total:

Explanation of how force is generated - submax 4:

1.	Ski jumper adopts aerofoil shape
2.	Creates an angle of attack to the direction of air flow
3.	Air travels further over the top of the ski jumper (or opposite)
4.	Air travels faster over the top of the ski jumper (or opposite)
5.	Low pressure is formed above the ski jumper (or opposite)
6.	Bernoulli effect (lift force created)

Description of its effect - submax 1:

7.	Extends the flight time/ski jumper travels further.
8.	Creates non parabolic/asymmetric flight path.

- 3 (c) Fig 2 shows a slalom skier in various positions. The broken line represents the axis of rotation of the skier when turning. Identify the axis through which the skier rotates. Describe how a slalom skier uses the law of conservation of momentum to aid their technique at the start of, during and at the end of a turn. [7]

Levels marked question:

Level 3: 6-7 marks

Responses will show understanding of the concepts involved in the Law of Conservation of Angular Momentum and correctly identify the axis of rotation.

There will be a full, coherent explanation of the changes that take place during all phases of the turn using the correct technical language.

Responses at the lower end of this level may not demonstrate the link with the analogue of Newton's First Law of Motion.

Level 2: 3-5 marks

Responses should identify correct axis of rotation and show some understanding of the concepts involved. Explanation should be coherent but points will be missed and phases of the turn may not be fully related.

Level 1: 1-2 marks

Responses will be limited and explanation lack clarity. For the top of this level the correct axis of rotation should be identified and phases of the turn must be referred to.

Question

Marks

Indicative content. 7 marks in total:

1.	(Axis of rotation) Longitudinal
2.	(Concept 1) Analogue of Newton 1 states that an athlete will continue to rotate with constant angular momentum
3.	unless acted upon by an unbalanced/net/external torque/moment of force
4.	Angular Momentum = $I\omega$ / $M_1 \times$ angular velocity
5.	(Concept 2) M_1 /Moment of Inertia is the body's resistance to rotate/change angular motion
6.	(Concept 3) Angular velocity/speed/ ω is the rate of spin of a body

(Start of turn)

7.	Generate angular momentum
8.	By applying moment of force/torque to skier
9.	The force at the skis is applied outside axis of rotation/longitudinal axis
10.	Large M_1 /body in crouched position/diagram C
11.	Small ω /angular velocity/rate of spin

(During turn)

12.	Reduce M_1 /skier is more upright/diagram A 1
13.	Increases ω /angular velocity/rate of spin
14.	Turn more quickly

(End of turn)

15.	M_1 increased/skier returns to crouched position/diagram C
16.	Angular velocity/ ω decreases
17.	(Crouching) stabilises skier at speed (making it more difficult to turn)

Total Marks [21]

Question

Marks

- 4 (a) (i) Using examples from sport, explain the interactionist approach to personality.

[3]

(interactionist)**Sub max one mark with no sporting example****4 marks for**

1.	Traits that are triggered by environment/situations/ $B=f(pe)$ /social environment.
2.	Involves a combination of trait and social learning.
3.	Typical responses may be affected by circumstances (Hollander).
4.	Therefore behaviour is not predictable
5.	Sportspeople's personalities change in different situations.

- 4 (a) (ii) Explain three limitations of personality profiling.

[3]

3 marks for**Mark first three responses only****(limitations of profiling)**

1.	Profiling results too vague/do not link cause and effect.
2.	Results cannot be generalised (to the behaviours of others)/lacks external validity/sample not representative.
3.	Results lack ecological validity/are not true to real life/do not relate to sports performance
4.	Profiling too subjective/results explained differently by different people/unreliable interpretations.
5.	Links between personality and sports performance/sport choice/task persistence too tenuous (sceptical approach).
6.	Too many demand characteristics/behaviour of performer may be altered due to profiling/internally invalid.
7.	Answers not reliable / misleading

- 4 (b) (i) Describe the characteristics of performers who need to achieve in sport.

[4]

4 marks for:

1.	Approach behaviour.
2.	(Nach) (very) competitive.
3.	Likes a challenge.
4.	Likes/seek feedback.
5.	Takes risks.
6.	Not afraid to fail/views failure as a route to success.
7.	Attributes success internally/stable factors.
8.	Attributes failures to unstable/controllable factors.

Question

Marks

4 (b) (ii) Explain what is meant by learned helplessness in sport.

Using practical examples, explain how you would help a sports performer to avoid learned helplessness and to promote mastery orientation.

[6]

Levels Marked

Level 3: 5-6 marks

Candidate explains learned helplessness. Explanation of how to avoid LH and promote MO includes relevant practical examples. High degree of technical language included. Attribution theory applied well.

Level 2: 3-4 marks

Candidate explains learned helplessness. Weaker explanation or description of how to avoid LH and promote MO including limited relevant practical examples. At the top of this level attribution theory applied.

Level 1: 1-2 marks

Candidate describes some aspects of learned helplessness. Very few if any relevant practical examples in explanation. Little or no other theories applied.

Indicative content (LH)

1.	Feeling/affective response/emotion
2.	That failure is inevitable
3.	(linked to) hopelessness/being useless/having low ability
4.	Has low confidence/low self efficacy
5.	(due to) perceived/actual failure/poor past experiences
6.	Failure reinforced by others
7.	Avoidance behaviours/hides from responsibility/seek to escape/ lack of persistence/gives up easily
8.	Global / specific

(Attribution theory linked to LH)

9.	Attribute failure to internal factors
10.	Attribute failure to stable factors
11.	Attribute failure to uncontrollable factors

(Attribution theory linked to MO)

12.	Attribute failure to controllable/internal factors/empower/convince that they can control part of future performances. (Examples may include putting more effort into the activity)
13.	Attribute failure to unstable factors/changeable factors/aspects that are not permanent or enduring (examples may include effort/luck/tactics/developing skills etc)

Question

Mark

(promotion of MO)

14.	Use role models/significant others/leaders/coach/other players.
15.	Use vicarious experiences/to see those of similar ability succeed in the task
15.	Positive reinforcement/encouragement/verbal persuasion.
16.	Raise self-confidence/efficacy
17.	Enable success to be experienced/give success/enable positive outcomes
18.	Control arousal/calm them
19.	Use mental practice/imagery of successful movement
20.	Use goal setting that is specific
21.	Measured target/goal setting
22.	Goal setting that is realistic/achievable
23.	Goals must be challenging

- 4 (c) Explain what is meant by cue utilisation and explain its effect on the performer in sport. [5]

5 marks for:

One mark for:

1.	Use of relevant stimuli/information/signals from the environment.
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4 marks for 4 from:

(sub max 4 marks)

2.	This focuses attention/concentration/perceptual narrowing
3.	As arousal increases
4.	Enter zone of optimal functioning/peak flow experience effecting performance positively/building confidence/well-being
5.	If arousal continues to increase narrowing of attention can result in the missing of vital cues/signals/reduction in performance/poor performance
6.	(The effect on the performer): Performer must concentrate on relevant cues and not be distracted/use of selective attention/mental rehearsal this aids performance
7.	(The effect on the performer): Performer needs to be calm/lower arousal/lower anxiety/stress management to ensure that the right decisions are made/control is maintained
8.	(negative effects): Low levels of arousal/wide field of attention can lead to poor performance because cues are missed

Total Marks [21]

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