

GCE

Physical Education

Unit **G453**: Principles and concepts across different areas of Physical Education

Advanced GCE

Mark Scheme for June 2014

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This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which marks were awarded by examiners. It does not indicate the details of the discussions which took place at an examiners' meeting before marking commenced.

All examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes should be read in conjunction with the published question papers and the report on the examination.

OCR will not enter into any discussion or correspondence in connection with this mark scheme.

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Annotations used in the detailed Mark Scheme (to include abbreviations and subject-specific conventions)

| Annotation | Meaning |
|------------|---|
| ✓ | = Correct response |
| S | = Sub max |
| BOD | = Benefit of the doubt |
| REP | = Repeat |
| TV | = Too Vague |
| KU | = Knowledge and understanding (levels scheme) |
| DEV | = Development (levels scheme) |
| IRR | = Significant amount of material which does not answer the question |
| SEEN | = Noted but no credit given |
| L1 | = Level 1 (levels scheme) |
| L2 | = Level 2 (levels scheme) |
| L3 | = Level 3 (levels scheme) |
| L4 | = Level 4 (levels scheme) |
| EG | = Practical example (levels scheme) |
| ВР | = Blank page |

Subject-specific Marking Instructions

Marking responses 'a - c'; points marked questions

An element of professional judgement is required in the marking of G453. Correct answers should always be rewarded irrespective of whether or not they appear on the mark scheme. If you are in doubt about the validity of any answer then consult your Team Leader (Supervisor) by phone or e-mail.

Marking response 'd'; levels of response marked question

It is quite possible for an excellent and valid answer to contain knowledge and arguments which do not appear in the indicative content on the mark scheme. Each answer must be assessed on its own merits according to the generic descriptors and discriminators.

The levels of response descriptors are cumulative, ie a description at one level builds on or improves the descriptions at lower levels. Not all qualities listed in a level must be demonstrated in an answer for it to fall in that level.

Candidates will take different approaches to achieve within the same level. Some will adopt a less focused approach but demonstrate a wide range of knowledge others may adopt a more focused approach using a narrower range of well-developed knowledge.

Approach to marking levels of response questions:

- read the candidate response in full;
- working from the top down and using a *best-fit* approach, refer to the generic descriptors and discriminators to determine the level;
- re-read the answer, highlighting credit worthy aspects of the response in relation to knowledge, understanding, development, examples, etc;
- confirm or revise initial decision re level;
- determine the mark within the level as per the guidance in 10 (above), with reference to the discriminators, and, again, using a *best-fit* approach.

Section A: Historical Studies (Option A1)

| on | | Answer | Marks | Guidance |
|----|---|---|-------|--------------------|
| | 5 marks for 5 of: | | | |
| | | action on young people's participation in physical activity | 5 | |
| | Sub max 3 | | | |
| | 1. (less provision) | less provision or less opportunity (for physical activity) | | |
| | 2. (fewer staff) | fewer (non-specialist) staff helping with extra-curricular activities | | |
| | 3. (less | less participation (in schools) or fewer/no extra-curricular activities or fewer Saturday | | |
| | participation) | fixtures | | |
| | 4. (lifetime sport) | (potential) negative impact on lifelong involvement or less likely to carry on with participation in later life | | |
| | 5. (more community / positive view) | increased community or club provision/ participation (due to reduced school provision) | | |
| | | ts of the National Curriculum. | | |
| | Sub max 2 Possible Positive in | nnacts | | |
| | Possible Positive in | | | |
| | Possible Positive in 1. (standards) | (Higher) standards or clear (national) standards or better progress (due to assessment) | | |
| | Possible Positive in | | | Accept |
| | Possible Positive in 1. (standards) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools | | Accept |
| | Possible Positive in 1. (standards) 2. (consistency) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools or easy transfer between schools | | first two |
| | Possible Positive in 1. (standards) 2. (consistency) 3. (balance) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools or easy transfer between schools A balanced PE experience | | • |
| | Possible Positive in 1. (standards) 2. (consistency) 3. (balance) 4. (pupil rights) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools or easy transfer between schools A balanced PE experience Learners gain the right to certain content or entitlement Leads to greater likelihood of lifelong participation or likely to carry on with physical | | first two attempts |
| | Possible Positive in 1. (standards) 2. (consistency) 3. (balance) 4. (pupil rights) 5. (participation) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools or easy transfer between schools A balanced PE experience Learners gain the right to certain content or entitlement Leads to greater likelihood of lifelong participation or likely to carry on with physical activities Schools can adapt the curriculum to suit themselves/their strengths or (some) autonomy | | first two attempts |
| | Possible Positive in 1. (standards) 2. (consistency) 3. (balance) 4. (pupil rights) 5. (participation) 6. (adaptation) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools or easy transfer between schools A balanced PE experience Learners gain the right to certain content or entitlement Leads to greater likelihood of lifelong participation or likely to carry on with physical activities Schools can adapt the curriculum to suit themselves/their strengths or (some) autonomy for schools or schools can have some choice over what/how they deliver the NC Support provided (especially to non-specialist teachers) Variety or broad range of skills/experiences/sports developed or thinking / analytical / social skills developed or accept examples of skills / values (such as fair play or integrity | | first two attempts |
| | Possible Positive in 1. (standards) 2. (consistency) 3. (balance) 4. (pupil rights) 5. (participation) 6. (adaptation) 7. (support) | (Higher) standards or clear (national) standards or better progress (due to assessment) A consistent experience wherever a child goes to school or same offered in all schools or easy transfer between schools A balanced PE experience Learners gain the right to certain content or entitlement Leads to greater likelihood of lifelong participation or likely to carry on with physical activities Schools can adapt the curriculum to suit themselves/their strengths or (some) autonomy for schools or schools can have some choice over what/how they deliver the NC Support provided (especially to non-specialist teachers) Variety or broad range of skills/experiences/sports developed or thinking / analytical / | | first two attempts |

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| vork or admin or record keeping or restricts time (for creative planning) uming te support or specialist training or support needed for non-specialist or eachers te of assessment or skewed results due to confusion of lack of | | |
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| uming te support or specialist training or support needed for non-specialist or eachers | | |
| eachers | | |
| e of assessment or skewed results due to confusion of lack of | | |
| erience or assessment too subjective or assessment is inaccurate | | |
| omit certain aspects (eg dance) (if teachers not keen on something it r teachers only choose their favourite activities or activities that they | | |
| ers' choice / too prescriptive or you can't teach all that you want to | | |
| | | |
| | | |
| | | |
| ı | • | ers' choice / too prescriptive or you can't teach all that you want to ire on schools or school under pressure to have / provide certain |

| Q | uestion | | Answer | | Marks | Guidance |
|---|---------|--|--|--|-------|---|
| 1 | 1 (b) | 6 marks for 6 of Comparison of (sub max 4) | f: ^r mob football and real tenni: | s | 6 | Sub max 4 for comparison Direct comparison needed for each mark |
| | | | Mob football | Real tennis | | · |
| | | 1. (rules) | simple rules or unwritten rules or limited rules | complex rules or written rules | | Accept 'implied' comparison eg 'more' or 'less'. |
| | | 2. (facility) | simple or natural facility or in the countryside or rural | purpose built facility or court | | |
| | | 3. (equipme | nt) simple or natural equipment or pigs bladder for ball or just a ball | Sophisticated / expensive / specialist equipment or specialist rackets / balls | | |
| | | 4. (regularity |) occasional or irregular or annual or festival | (more) regular / more frequent | | |
| | | 5. (location) | Local | not (only) local | | |
| | | 6. (class) | lower class or peasants or for 'the people' / populace or for everyone | upper class or royalty or courtly or gentry or aristocracy or exclusive/elitist | | |
| | | 7. (violence) | violent / dangerous/physical | non-violent or sophisticated or peaceful or friendly or skilful or safe | | |
| | | 8. (clothing) | no specialist clothing | specialist clothing | | |
| | | 9. (wagering |) wagering | wagering | | |
| | | 10. (male) | male dominated / men only | male dominated/ men only | | |
| | | 11. (spectato | s) not for spectators or if nearby, assumed involved | a game for spectators | | |
| | | | | | | |

| Question | | Answer | Marks | Guidance |
|----------|---|---|-------|---|
| | Two reasons for lin | nited participation in real tennis today | | |
| | (sub max 2) | | | Sub max 2 for real tennis today |
| | 12. (facilities) | few courts or few clubs or limited (specialist) facilities | | Only mark first two identifiable attempts at possible reasons |
| | 13. (coaches) | Limited number of (specialist) coaches | | |
| | 14. (expensive) | expensive | | |
| | 15. (skill) | A skilful or difficult game or complex rules | | |
| | 16. (schools) | Not played in (most) schools | | |
| | 17. (few role models / others who play) | Don't know others who play or friends don't play or lack of role models of media coverage | | |
| | 18. (perception/ choice) | (Perception that it is) an exclusive game or (perception that it is) a game for Royalty or upper class or do not choose to play / feel it's 'not for them' or lack of motivation (to play) or for wealthy | | |
| | 19. (initiatives) | Few initiatives or little advertising or unaware of existence/opportunities or don't know much about it | | |
| | 20. (lawn tennis) | (Lawn) tennis as alternative or people play (lawn) tennis instead | | |
| | | | | |
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| | | | | |
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| | | | | |

| Question | | Answer | Marks | Guidance |
|----------|---|--|-------|--|
| 1 (c) | 4 marks for 4 of: How these social relationships were games in stage one and stage three (sub max 2) | e reflected in the nature of sports and | 4 | |
| | Social relationships Stage one 1. Bullying or brutality or poor relationships (between themselves) or mutual disrespect (between boys and masters) or reference to fagging system or boy slaves became boy tyrant as they moved up the school or poor relationships between school and the local community or boys involved in | violent or force not skill or outright / un-channelled aggression or lack of respect for teammates or opposition or there were (occasional) deaths or trespassing (activities) | | Sub max 2 for how social relationships reflected the nature of sports and games in stages one and three. One mark for stage one One mark for stage three Link any element of the 'social relationships' box with any element of the 'nature of sports and games' box for each mark Accept: Stage 1 'ruling by the rod' |
| | poaching/fighting/trespassing | | | |
| | 2. less bullying / brutality or improved relationships / more mutual respect (between boys and masters) or more caring / friendly / paternal teachers / Head Teachers or more friendly relationships between Sixth Form /Prefects and young boys or better relationships between school and the local community or boys in mainly school-based activities | Less violent or skill rather than force or channelled aggression or sportsmanship/fair play or respect for team mates/opposition /or safer or more pastoral care or (more) rules | | |

| Question | | Answer | Marks | Guidance |
|----------|--|---|-------|---|
| | Reasons for changes in social relationships - stage one to stage three | | | |
| | (sub max 2) | | | Sub max 2 for changes in social |
| | 1. (Heads) | impact / reforms of Dr Thomas Arnold / head teachers | | relationships |
| | 2. (Sixth Form) | impact of sixth form being given responsibility /or raised status of Sixth Form or Sixth Form given powers of discipline or Sixth Form Arnold's 'eyes and ears' around school or Sixth Form as link between masters and boys or Sixth Form were 'a police force'. | | Mark first two identifiable reasons given |
| | 3. (house system) | due to impact of house system | | |
| | 4. (social control) | improvements in social control or impact of stage two / transition stage | | |
| | 5. (games) | due to increased status / regularity / organisation (of games or sports) | | |
| | 6. (Muscular Christianity) | impact of Muscular Christianity or Arnold/Headteachers keen to produce Christian gentlemen or chapel as centre of school life or delivery of Christian message | | |
| | 7. (civilising process) | the civilising process in society or society becoming more civilised / orderly or less primitive or reflection of societal change or increased law and order or new moral code | | |
| | | | | |
| | | | | |

| (d)* Levels of Response Impact of socio-cultural factors on devel | lopment of Association Football from 1850 to today. |
|--|---|
| Level 4 (18-20 marks) | At Level 4 answers are likely to include: |
| A comprehensive answer: detailed knowledge & excellent understanding detailed analysis and excellent critical evaluation well-argued, independent opinion and judgements which are well supported by relevant practical examples very accurate use of technical and specialist vocabulary high standard of written communication throughout. | detailed and developed discussion of a wide range of sociocultural factors. detailed coverage of its development up to more recently – today. knowledge consistently and accurately applied to Association Football |
| Level 3 (13-17 marks) A competent answer: good knowledge and clear understanding good analysis and critical evaluation independent opinions and judgements will be present but may not always be supported by relevant practical examples generally accurate use of technical and specialist vocabulary written communication is generally fluent with few errors. | At Level 3 answers are likely to include: good with some developed discussion of a range of sociocultural factors. good coverage of its development more recently. knowledge accurately applied to Association Football |
| Level 2 (8-12 marks) A limited answer: limited knowledge and understanding some evidence of analysis and critical evaluation opinion and judgement given but often unsupported by relevant practical examples technical and specialist vocabulary used with limited success written communication lacks fluency and contains errors. | At Level 2 answers are likely to include: discussion, with little development, of some socio-cultural factors. limited coverage of its development more recently. knowledge sometimes applied accurately to Association Football |
| Level 1 (0 – 7 marks) A basic answer: basic knowledge and little understanding little relevant analysis or critical evaluation little or no attempt to give opinion or judgement little or no attempt to use technical and specialist vocabulary errors in written communication will be intrusive. | At Level 1 answers are likely to include: |

| Question | | Answer Ma | rks Guidance |
|----------|---|---|---|
| 1 (d)* | Indicative Content: Impact of socio-cultur today. | ral factors on development of Association Football from 1850 to | Give KU for <u>relevant</u> knowledge points (usually main headings) |
| | 1. (mob game) 2. (1800-1850) | Background reference to pre-industrial or mob football Background reference to first half of nineteenth century when opportunity and provision for football and other sports and pastimes limited | Give DEV for <u>relevant</u> development points (usually bullet points) |
| | 3. (urbanisation) | Background reference to (post1800) urbanisation / migration of lower class from rural to urban areas Iarge numbers in same place / captive audience Overcrowding / disease | Always indicate the Level at the base of the |
| | 4. (free time) | increased free time • shorter working day / shorter working week • 12 to 10 hours / 72 to 60 hours • week paid holiday •1870-1890 – first for skilled, then semi-skilled, then unskilled • Factory Act | answer (L1,L2, L3 or L4) Do not be limited by the indicative content give credit for other relevant points or developments. Do not give credit to irrelevant material |
| | 5. (half day) | Saturday half day •for factory workers • 1870-1890 – first for skilled, then semi-skilled, then unskilled | ed |
| | 6. (early closing) | Early closing movement shop workers half day | |
| | 7. (transport) | improved transport notably railways significance of third class tickets (working class could afforto travel) spectators could travel to 'away' matches increased the regularly of matches / more fixtures players could play teams from further away | rd |

| Question | | Answer | Marks | Guidance |
|----------|----------------------------|--|-------|----------|
| | 8. (rules/NGBs) | (so)rules needed or established / standardisation of rules / codification e.g. regarding numbers on team or 'off side' • Establishment of NGBs • FA (in 1863) | | |
| | 9. (competitions) | (so) leagues or cups of competitions established e.g. FA cup | | |
| | 10. (technology) | Improved technology / purpose built or specialist facilities | | |
| | 11. (affordable) | affordable / could afford it / not too expensive / could afford entror gate money • could afford transport (significance of third class travegiven in 3 above) | | |
| | 12. (broken time payments) | (impact of) broken time payments compensation for loss of earnings working class unable to afford to miss work | | |
| | 13. (professionalism) | opportunities for professional players professional football a (comparatively) 'good' job But – not a secure job chance for skilled footballers to 'escape' factory or urb deprivation | pan | |
| | 14. (class) | impact of class association football became 'the people's game' or the working class game middle class influenced game / game became more respectable e.g. middle class team - Corinthian casuals | e | |
| | 15. (business) | business opportunity • running a club | | |

| Question | | Answer | Marks | Guidance |
|----------|--------------------------------|--|-------|---|
| | 16. (literacy) 17. (media) | improved literacy/ education of working class | | For higher band answers look for more recent developments |
| | 18. (law and order) | increased law and order •so less gambling (on football) •so game became socially acceptable | | For Level 4 look for the inclusion of today |
| | 19. (ex public school boys) | | e | |
| | 20. (factory and church) | expansion through factory or church teams • Church acceptance • e.g. Everton or other example More recently - today: | | |
| | 21. (golden triangle) | impact of 'golden triangle'/ increased impact of media or sponsor | rship | |
| | 22. (role models) | top players as superstars or role models Positive and negative role models high salaries for top players e.g. Wayne Rooney or other example | | |

| Question | | Answer | Marks | Guidance |
|----------|-----------------------|---|----------|----------|
| | 23. (minority groups) | involvement by minority groups • gender discrimination impacting on female de (until more recently) • e.g. women or other example • reference to women's football in London 2012 • Development of women's (Super) league • Kick racism out of football | · | |
| | 24. (foreign players) | Foreign players • Bosman rules / non-English players in Premie e.g. accept any suitable example | r League | |
| | 25. (transport) | transport developments • cheap international travel | | |
| | 26. (grass roots) | grass roots FA skill schools Expansion of school sport | | |
| | 27. (comps) | more fixtures or competitions | | |
| | 28. (technology) | Impact of modern technology Influence of internet Football info via Smartphones e.g. goal line technology e.g. ref's mic | | |

Section A: Comparative Studies (Option A2)

| Question | Answer | | Marks | Guidance |
|----------|------------------------|---|-------|----------|
| (a) | | | 5 | |
| | Outline the growth and | development of Association Football in Australia. | | |
| | 5 marks for 5 of: | | | |
| | Early days | | | |
| | 1.(ethnicity) | Game associated with immigrants/colonial period/ 'Pommie game'/copied from 'Motherland' | | |
| | 2.(not accepted) | Australia wanted own game or game not accepted / adopted initially | | |
| | 3.(concern) | Concern that football would become top sport (above rugby codes and Aussie Rules) or not enough players to go around or lack of 'sport space' | | |
| | 4.(violence) | Spectator and player violence (associated with ethnic rivalry - made it widely unacceptable) | | |
| | 5.(media/sponsorship) | Limited media interest or limited sponsorship | | |
| | More recently | | | |
| | 6.(NGB) | Improved leadership or improved efficiency of governing body or governing body has improved image of game | | |
| | 7.(ethnicity) | Reduced ethnic troubles (as ethnic origin of teams no longer recognised) | | |
| | 8.(media sponsorship) | Increased media coverage / support or increased sponsorship/merchandising or National League set up | | |
| | 9.(school/community) | Popular in schools / communities | | |
| | 10.(AIS- elite) | Supported by AIS/Australian Institute of Sport | | |
| | 11. (star players) | Australian players in European leagues or English premiership/'star' European players sought by Australian teams (for skill development, entertainment, role modelling) | | |
| | 12.(success) | Increased international success/profile of national team or success in (2006) world cup or 2010/2014 world cup qualification or 2009 Aus reached 14 in world rankings. | | |
| | 13.(Spectators) | Increased spectators or international matches played around the country (no national stadium) encouraging interest/spectators | | |

| Question | | Answer | | Marks | Guidance |
|----------|------------------------|--|---|-------|---|
| | 5 marks for 5 of: | | | | |
| (b) | Compare provision | for sporting excellence in Australia | and UK | | |
| | | Australia | UK | | |
| | 1.(decentralised) | Both have decentralised systems | | | |
| | 2.(institutes) | Both have institutes or UK copied Au home country institutes | stralia or UK has UK Sport / | | |
| | 3.(examples) | Eg Australian Institute of Sport / Victorian Institute of Sport (VIS)/Melbourne/SASI/NSWIS/NTIS Or European Training Centre | Eg English Institute of Sport (EIS) at Bisham or Sheffield/SINI/SIS/WIS Or Sport UK | 5 | Points 1,2, 7-10 must have reference to both countries |
| | 4.(state v country) | Each state has at least one Institute or all institutes of equal status | Each home country has its own institute or all institutes of equal status | | Points 3 – 6 must directly compare with Australia and UK |
| | 5.(Govt) | Government (ASC) directly involved in sporting decisions | Government not (directly) involved with sporting policy/funded via NGB's etc | | |
| | 6.(funding) | Funded by government or business or private enterprise | Funded by National Lottery or business sponsorship | | |
| | 7.(facilities) | Institutes in both countries have work facilities/equipment/technology | d class / excellent / top | | |
| | 8.(support) | maximises potential/supports high pe in both countries provide world class coaching/medical/scientific | | | |
| | 9.(financial help) | Institutes in both countries provide fir performers | ancial aid/sponsorship to | | |
| | 10.(Education /ASE) | Institutes in both countries provide ed vocational opportunities eg ASE eg a finance | | | |

| uestion | | Answer | Marks | Guidance |
|---------|--|--|-------|----------|
| (c) | 5 marks for 5 of: | | | |
| | Dominant values in USA that affect participation and performance in physical activity. | | | |
| | The USA: sub max 3 | | 7 5 | |
| | 1.(Lombardianism) | Lombardianism or win at all costs or winning more important than taking part | | |
| | 2.(American dream) | All people are equal (in terms of opportunity and regardless of background) or it is possible through hard work to succeed. | - | |
| | 3.(counter culture ethic) | (less dominant) counter culture ethic or taking part more important than winning | - | |
| | 4.(radical ethic) | (less dominant) radical ethic or taking part and winning of equal importance | | |
| | 5.(rags to riches) | Rags to riches opportunities or ref American Dream or land of opportunity or work ethic or frontier spirit | | |
| | 6.(pluralism) | Pluralism or different ethnic / religious / political groups (within one society) or minority groups maintain cultural differences / but share power | | |
| | 7.(assimilation) | Americanisation or identifying with/being accepted (by the USA) | | |
| | 8.(hegemony) | Hegemony or control / domination / power / authority held by certain group or discrimination or key roles / positions held by dominant societal group or WASP domination / centrality / stacking | | |
| | TWO different values in U | | | |
| | 9.(democracy) | Democracy or citizens encouraged to be active in civic rights / laws / procedures (apply equally to all citizens). | | |
| | 10.(teamwork) | Teamwork or co-operation or joint effort (is respected / admired). | 1 | |
| | 11.(individuality) | Individuality or each person is unique |] | |
| | 12.(fair play) | Fair play or sportsmanship |] | |
| | 13.(competitiveness) | Competitiveness or desire to achieve |] | |

| Question | | Answer | Marks | Guidance |
|----------|--------------------------------|---|-------|---|
| | 14.(participation) | Participation/(traditionally)taking part more important than winning | | |
| | 15.(overcoming discrimination) | overcoming discrimination/Multiculturalism/ fairness/egalitarianism/equal opportunity/social equality | | |
| | | | | Only accept points that show differences in values Eg if candidate |
| | | | | gives point 3 for USA then cannot give point 14 for the UK |

| 2 (| d)* Levels of Response [Compare American football in the US | SA and Rugby Union in the UK with reference to origins and status] |
|-----|---|---|
| Le | vel 4 (18-20 marks) | Discriminators at Level 4 are likely to include: |
| A | comprehensive answer: | detailed knowledge and excellent understanding of both origins and |
| • | detailed knowledge & excellent understanding | status |
| • | detailed analysis and excellent critical evaluation | direct comparisons successfully made between origins and status of |
| • | well-argued, independent opinion and judgements which are | American football in the USA and Rugby Union in the UK; other |
| | well supported by relevant practical examples | relevant stand-alone points may also be made |
| • | very accurate use of technical and specialist vocabulary | impact of commercialism on American football in the USA and Rugby |
| • | high standard of written communication throughout. | Union in the UK probably included. |
| | | sound structure and balance between parts of the question |
| | vel 3 (13-17 marks) | Discriminators at L3 <u>are likely</u> to include: |
| A | competent answer: | good knowledge and understanding of both origins and status |
| • | good knowledge and clear understanding | mostly direct comparisons made of origins and status of American |
| • | good analysis and critical evaluation | football in the USA and Rugby Union in the UK; other relevant stand- |
| • | independent opinions and judgements will be present but may | alone points may also be made . |
| | not always be supported by relevant practical examples | an attempt at structuring/answering the question with balance |
| • | generally accurate use of technical and specialist vocabulary | between parts of the question |
| • | written communication is generally fluent with few errors. | |
| | vel 2 (8-12 marks) | Discriminators at L2 <u>are likely</u> to include: |
| A | imited answer: | limited knowledge and understanding of both origins and status |
| • | limited knowledge and understanding | some direct comparisons made between origins and status of |
| • | some evidence of analysis and critical evaluation | American football in the USA and Rugby Union in the UK; stand-alone |
| • | opinion and judgement given but often unsupported by | points are likely to be more in evidence |
| | relevant practical examples | an attempt at structuring/answering the question but not necessarily |
| • | technical and specialist vocabulary used with limited success | with balance between parts of the question |
| • | written communication lacks fluency and contains errors. | |
| Le | vel 1 (0 – 7 marks) | At L1 responses are likely to: |
| ΑI | pasic answer: | demonstrate basic knowledge and understanding of origins or |
| • | basic knowledge and little understanding | status |
| • | little relevant analysis or critical evaluation | demonstrate a basic comparison of origins and status of American |
| • | little or no attempt to give opinion or judgement | football in the USA and Rugby Union in the UK; stand alone points |
| • | little or no attempt to use technical and specialist vocabulary | are more likely than direct comparisons |
| • | errors in written communication will be intrusive. | Some inaccuracies |

| Que | estion | Answe | r | Marks | Guidance |
|-----|--------|---|--|-------|--|
| 2 | (d)* | Indicative Content: Compare American football in the USA and Rugby Union in the UK with reference to origins and status. | | 20 | Give KU for <u>relevant</u> knowledge points (usually main headings) |
| | | American Football in USA | Rugby Union in UK | | Give DEV for relevant |
| | | Origins / Background | | | development points |
| | | 1.In early 1800s (originally) there were no | In early 1800s (originally) there were no | | (usually bullet points) |
| | | generally accepted rules | generally accepted rules | | Give EG for <u>relevant</u> |
| | | mob game / characteristics of the mob game | characteristics of the mob game | | practical examples |
| | | 2. Evolved during 1800s | Evolved during 1800s | | Give DEV for relevant |
| | | 3.Adapted from Rugby Union Developed in Ivy League Universities | Developed in (nineteenth century) Public Schools | | evaluative points relevant independent |
| | | • eg Yale (in 1800s) | eg Rugby School/and universities eg Oxbridge | | opinionAlways indicate the |
| | | 4.Remained a university game or became professional game no tradition of club structure for game | Schools impacted on senior game as many clubs were formed • by 'Old Boys'/strong / club structure | | Level at the base of the answer (L1,L2, L3 or L4) Do not be limited by the |
| | | 5.There is no single national governing body for AF in the USA there are several leagues including the NFL/NFL formed in 1920 | National Governing body / NGB • RFU established (in 1871) | | indicative content give credit for other relevant points or developments. • Do not give credit to |
| | | 6.(by 1900) game was highly physical or violent or dangerous | Controlled aggression rather than outright violence | | irrelevant material |
| | | serious injury or deaths of players not uncommon intervention by President in 1910 season 6 players were killed which | no real evidence of catastrophic injury or death during developmental stages | | |
| | | resulted in rule changes | | | |
| | | 7. Pitch markings | Pitch markings present | | |
| | | originally called 'grid-iron' | | | |
| | | pitch markings were originally horizontal and vertical | | | |
| | | 8. Rules increased or encouraged physicality | Rules restrict physicality | | |

| Question | Answe | er | Marks | Guidance |
|----------|---|---|-------|----------|
| | 9.Game reflected 'frontier' or 'pioneering' spirit | Game reflected values of public schools or Empire leadership/courage /determination | | |
| | 10.Initially little protective clothing Description | No protective clothing until relatively recently • Description | | |
| | 11. Forward pass made legal | No forward pass | | |
| | 12.Strong rivalry between universities | Strong rivalry between universities | | |
| | 13.Became professional early in development | Remained amateur until 1995 • 'Friendly' Matches until 1990s/leagues developed with onset on professional etc • Paris declaration | | |
| | 14. Professional coaches employed by universities. | No professional coaching during development / prof. coaching post professional era | | |
| | 15.Game not influenced by class structure | Upper / Middle class game (initially) | | |
| | stacking and centrality | more egalitarianmore discrimination | | |
| | 16.An American game that supported isolationist policy of USA | Game spread to circa18 countries of Empire | | |
| | is America's own gamegame has been mainly rejected elsewhere | | | |
| | 17. Embraced commercialism | Resisted commercialism | | |
| | Contemporary status | 1 | | |
| | 18. Very high status | (Very) high statusEspecially in some parts of the UK (eg south of England | | |
| | 19.Most popular (spectator) sport in USA Or One of the ' Big Four ' | Not the most popular sport | | |

| Question | Answer | | | Guidance |
|----------|---|--|--|----------|
| | 20.Game is entertaining sensational or intense or hard-hitting which arguably raises its status or popularity | Skill or creativity or flair as or more important than intensity • greater intensity since game went professional | | |
| | 21.Entertainment off the pitcheg cheerleaders or mascots | Increasingly has entertainment off the pitch • eg cheerleaders or mascots • copying USA model / game 'Americansied' | | |
| | 22. Outright winners (no draws)win ethicwin at all costs | There are draws • participation ethic | | |
| | 23. Has high media profile or hype Huge media interest huge amount of air time / highest TV audience in US Regular commercial breaks | Increasing media product or hype impact of Sky TVGrowing business | | |
| | 24. Is linked to big business / commercialised Super Bowl as showpiece or commercial event / SB as championship game of NFL reference cost of advertising during half time show etc Teams bought or sold (as franchises) teams move within country when bought or sold Draft system with players 'bought / sold' | (Increasingly) linked with business and commercialism Golden triangle e.g. profit from ticket sales or merchandise/ media rights or TV deals arguably golden triangle or commericialism has increased deviance e.g. drug taking or other suitable example (Rugby Union) copying USA model / game 'Americansied' league structures established in Rugby Union in UK e.g. European or Heineken Cup established | | |

| 2: | 25. Gives access to the American Dream to very few | Gives opportunity for fame and fortune to | |
|----|--|--|--|
| | produces sport stars eg accept any suitable example | very few/produces sport stars | |
| 20 | 26. High status in High Schools little league / modified competitions | High status in schools High status in (some) independent schools Mini rugby / modified competitions | |
| 2 | 27.Image remained largely the same Image of game has been knocked by scandal eg drugs and deviance | Image or status of game has (arguably) changed since onset of professional era Impact of Rugby World Cup / 6 Nations coverage | |

Section B: Sports Psychology (Option B1)

| C | uestion | | Answer | Marks | Guidance |
|---|---------|---|---|-------------------|--|
| 3 | (a) | 4 marks for 4 of: Reference to question practical examples | on: Characteristics of need to achieve with | 4 | Only award marks if practical example is used as part of each description. Do not accept if no attempt at a |
| | | 1.(approach) | They have approach behaviour or do not have avoidance behaviour or they seek success or they seek mastery orientation e.g a football player will always attend training | | practical example. Do not accept if practical example does not match the characteristic described. Give TV for a practical example but not |
| | | 2.(challenge) | They like a challenge / like 50-50 situations or they take risks or don't take the easy route eg hockey player will risk losing possession by using a creative pass | | fully exemplified eg 'Approach behaviour when playing football' = Vg (0 marks). • Do not accept 'extroverts' or 'Type A' |
| | | 3.(feedback) | They like / seek feedback or are not afraid of negative feedback eg a swimmer will ask her coach to tell her what is wrong with her technique | | as characteristics (these are types of personality rather than characteristics of Nach). |
| | | 4.(competitive) | They are (very) competitive eg a basketball player will want to win | | Guidance (Attribution) • Internal is normally associated with |
| | | 5.(not afraid to fail) Not afraid to fail or they view failure as a rout success eg a netball player views a recent loss as a | | effort or ability | |
| | | 6.(attribute success) | Attributes success internally or attributes to stable factors eg a tennis player will state that it is her own hard | | changed eg abilityUnstable is an attribution that is |
| | | 7.(attribute failure) | training that has brought success Attributes failure to controllable or internal or to unstable (external) factors eg a sprinter will blame her own start technique as the reason for her poor race. | | A controllable attribution is one that is under the performers control and tend to be internal unstable factors (tactics) |
| | | 8.(task persistence) | Task persistence or will stick to the task or does not give up or determination Eg will keep trying to score in basketball | | |

| Question | Answer | | Marks | Guidance |
|----------|---|--|-------|----------|
| | 9.(responsibility) 10.(Confidence/self efficacy) | Takes responsibility Eg will readily become captain of hockey team Has (high levels of) confidence / self-efficacy Eg will show confidence by volunteering to take a penalty | | |

| Qu | estion | | Answer | Marks | Guidance |
|----|--------|--|--|-------|--|
| 3 | (b) | 5 marks for 5 of: The advantages of personali | ty profiling in sport. (sub max 3) | 5 | Sub max 3 for advantages Sub max 3 for disadvantages |
| | | 1.(link personality and performance) | Identifies those who might succeed or links between personality and performance or the credulous approach supports the link between personality and performance or that personality is unpredictable | | |
| | | 2.(Moods /POMS) | Profiles of mood states (POMS) show links between moods and performance. Or positive moods/vigour/optimism links with success in sport or links between negative moods/confusion/fatigue and unsuccessful sports performance | | |
| | | 3. (motivate/insight) | Helps to identify what motivates performers or those that persist with tasks or gives insight about what might drive performers to succeed | | |
| | | 4.(stress) | Helps control performers' anxiety/arousal/stress | | |
| | | 5.(understanding) | Helps to understand performers or know where they are coming from or appreciate them or get to know them | | |
| | | 6.(sport / position in sport) | You can put them in the right sport or in the right position in the team | | |
| | | 7.(leadership) | Helps to identify potential leadership qualities | | |
| | | | | | |

| Question | | Answer | Marks | Guidance | |
|----------|---|---|-------|---|--|
| | The disadvantages of personality profiling in sport. (sub max 3) | | | | |
| | 8.(link personality and performance) | (Links between personality and sports performance/sport choice/task persistence) too tenuous / the sceptical approach denies the link between personality and performance / personality is unpredictable lots of different personalities are found in similar positions/sports and therefore profiling is a waste of time | | Point 8 is a general point about the failure of profiling to link personality with performance or sport/position choice. Points 9 – 14 are more specific methodology points. | |
| | 9.(unreliable) | Profiling results too vague/unreliable or makes results inconsistent | | 'Profiling does not identify good performers' = 1 mark (point 8) | |
| | 10.(validity) | Results do not link cause and effect / profiling may not measure what it seeks to measure / not accurate / not valid | | 'and shows unreliable results' = 1 mark point 9 (therefore 2 marks total) | |
| | 11.(demand characteristics) | Too many demand characteristics/lying (on questionnaires) / behaviour of performer may be altered due to profiling/being observed. | | | |
| | 12.(sample) | Profiling may be based on a limited sample or the sample is unrepresentative | | | |
| | 13.(unrealistic) | Results lack ecological validity / profiling is not true to real life or does not relate to sports performance / does not take into account the environment/situation | | | |
| | 14.(subjective) | Profiling is too subjective and results explained differently by different people so unreliable interpretations/stereotyping | | | |
| | 15.(Generalised) | Results cannot be generalised or results cannot be applied to the general population/other people | | | |
| | | | | | |

| Question | Answer | | | Guidance |
|----------|--|---|--|--|
| 3 (c) | 6 marks for 6 of: (sub max 4) Describe cognitive anxiety management techniques: | | | Sub max 4 for cognitive |
| | 1.(mental rehearsal) | Mental rehearsal or mental practice or focussing involves going over/mentally repeating what needs to be done | | Sub max 4 for somatic Accept strategies that are not labelled as |
| | 2.(Imagery) | Imagery or visualisation or meditation involves creating mental pictures (to control arousal / to calm down) | | cognitive or somatic But if labelled incorrectly do not accept. |
| | 3.(positive self-talk) | Positive self-talk or smart talk or positive thinking (helps to control arousal / leads to an optimistic attitude) | | Cognitive = mental techniques Somatic = techniques linked to body systems |
| | 4.(rational thinking) | Thinking through what can/cannot be achieved or cognitive awareness or reflecting on past success or making sense of past failures or making internal statements that lead to success being optimistic. | | Look for description rather than a list of single words Eg '(cognitive techniques) include imagery, goal setting and mental rehearsal' = 0 marks Eg '(cognitive techniques) include mental |
| | 5.(negative thought- stopping) | Negative thought stopping blocks out irrational or negative thoughts (to help with arousal and less anxiety) | | rehearsal that involves running through skills in your head' = 1 mark |
| | 6.(goals) | Goal setting that is SMART/realistic/achieve able (can help to manage anxiety) or use of process or performance goals (rather than product goals) | | To 'calm down' = too vague Do not give point 8 yoga and point 13 yoga - can only score this point once either for cognitive method or somatic method. |
| | 7.(Distractions) | Using distractions (to avoid stressors) or using music/other people (to escape anxiety) or doing other activities (to take your mind off competition / stressful situations) or count to ten | | Eg 'Yoga helps to relax body and mind' = 1 mark only |
| | 8.(Yoga) | Activities such as yoga/Pilates (if related to cognitive or mental relaxation) | | |
| | | | | |

| Question | | Answer | Marks | Guidance |
|----------|----------------------|--|-------|----------|
| | (sub max 4) Describe | somatic anxiety management techniques | | |
| | 9.(relaxation) | (physiological) relaxation techniques can help calm the body/mind) or progressive relaxation techniques (PRT) (that relaxes muscle groups) or helps the body deal with stress by contracting and then relaxing groups of muscles | | |
| | 10.(massage) | Massage (of muscles) to relax | | |
| | 11.(breathing) | Deep / slow / steady / controlled breathing (can lower arousal levels) | | |
| | 12.(Biofeedback) | Biofeedback or an awareness of anxiety symptoms or aware of heart rate (gives awareness of body and thus more able to deal with stress). | | |
| | 13.(Yoga) | Activities such as yoga/Pilates (if related to relaxing the body) | | |
| | | , reseming me accepy | | |
| | | | | |
| | | | | |
| | | | | |

| 3 (d)* Levels of Response Explain why some young people have negative attitudes to sport and following a healthy lifestyle. | | | | | | |
|---|---|--|--|--|--|--|
| Describe how you might change negative attitudes into positive attitudes towards sport. | | | | | | |
| Level 4 (18-20 marks) | At Level 4 answers <u>are likely</u> to show: | | | | | |
| A comprehensive answer: | An excellent explanation of a range of reasons for negative | | | | | |
| detailed knowledge & excellent understanding | attitudes related both to sport and healthy lifestyle | | | | | |
| detailed analysis and excellent critical evaluation | Reasons are backed up accurately with reference to cognitive | | | | | |
| well-argued, independent opinion and judgements which are well | (beliefs) and affective (emotional) elements | | | | | |
| supported by relevant practical examples | Description of changing attitudes includes a good explanation of | | | | | |
| very accurate use of technical and specialist vocabulary | cognitive dissonance | | | | | |
| high standard of written communication throughout. | Excellent links to sport throughout for changes in attitude | | | | | |
| Level 3 (13-17 marks) | At Level 3 answers <u>are likely</u> to show: | | | | | |
| A competent answer: | A good explanation of a range of reasons for negative attitudes | | | | | |
| good knowledge and clear understanding | related both to sport and healthy lifestyle | | | | | |
| good analysis and critical evaluation | Reasons are backed up with reference to cognitive (beliefs) and | | | | | |
| • independent opinions and judgements will be present but may not | affective (emotional) elements | | | | | |
| always be supported by relevant practical examples | Description of changing attitudes includes some explanation of | | | | | |
| generally accurate use of technical and specialist vocabulary | cognitive dissonance | | | | | |
| written communication is generally fluent with few errors. | good links to sport throughout for changes in attitude | | | | | |
| Level 2 (8-12 marks) | At Level 2 answers <u>are likely</u> to show: | | | | | |
| A limited answer: | An explanation of a range of reasons for negative attitudes related | | | | | |
| limited knowledge and understanding | to sport or lifestyle | | | | | |
| some evidence of analysis and critical evaluation | Description of changing attitudes includes some explanation of | | | | | |
| opinion and judgement given but often unsupported by relevant | how attitudes can be changed (but not necessarily related to | | | | | |
| practical examples | cognitive dissonance) | | | | | |
| technical and specialist vocabulary used with limited success | Limited links to sport for changes in attitude | | | | | |
| written communication lacks fluency and contains errors. | | | | | | |
| Level 1 (0 – 7 marks) | At Level 1 answers <u>are likely</u> to show: | | | | | |
| A basic answer: | | | | | | |
| basic knowledge and little understanding | Little or no explanation of a limited range of reasons for negative | | | | | |
| little relevant analysis or critical evaluation | attitudes related to sport or lifestyle | | | | | |
| little or no attempt to give opinion or judgement | Description of changing attitudes with little/no explanation | | | | | |
| little or no attempt to use technical and specialist vocabulary | Few or no links to sport for changes in attitude | | | | | |
| errors in written communication will be intrusive. | Some inaccurate information | | | | | |
| | | | | | | |

| Question | | Answer | Guidance |
|----------|---|---|---|
| 3 (d)* | Indicative Content: Explain why some you healthy lifestyle. | ung people have negative attitudes to sport <u>and</u> following a | Give KU for <u>relevant</u> knowledge points (usually main headings) |
| | 1. (experience) | Attitudes arisen from negative previous experience or lack of success • Learned helplessness • EG - Injury when playing rugby • BAHL – Last diet didn't work | Give DEV for relevant development points (usually bullet points) Give EG for relevant practical examples |
| | 2. (Beliefs) | Attitudes affected by beliefs cognitive component Triadic model attitudes that are stable/consistent with behaviour - known as consonance EG – Participant thinks that rugby is a waste of time BAHL – Junk food does me no harm | Always indicate the Level at the base of the answer (L1,L2, L3 or L4) Do not be limited by the indicative content give credit for other relevant points or developments. |
| | 3. (emotions) | Attitudes affected by feelings | Do not give credit to irrelevant material |
| | 4. (role models) 5. (culture/norms) | Attitudes are shaped via role models More likely to copy significant others Influence of peers and other groups Poor experiences reinforced by significant others Attitudes shaped by cultural reasons / expectations Examples of cultural restrictions/religious beliefs Socialisation | - |

| Question | | Answer | Guidance |
|----------|---------------------------|---|----------|
| | 6. (Boredom) | Sport/ healthy lifestyle is thought to be boring | |
| | | Non-participation to lack of meaning /usefulness of sport/healthy lifestyle | |
| | | A belief or cognitive element. | |
| | | Could also been seen as affective or emotional element | |
| | 7. (motivation) | Therefore lack of motivation to participate | |
| | | Could lead to dysfunctional behaviour / leading others down an unhealthy route / bad influence | |
| | 8. (ability) | (perceived) lack of ability or I am no good at it - gives sense of helplessness or lack of confidence | |
| | | learned helplessness | |
| | | Leads to lack of self-esteem | |
| | 9. (rebel) | Counter-cultural attitudes / | |
| | | wanting to be different | |
| | | wanting to oppose authority/parents or to want to rebel | |
| | 10.(Upbringing / parents) | Attitudes shaped by upbringing or by parental influences | |
| | | EG Didn't experience sport as a child | |
| | | BAHL Parents allowed you to go to bed at midnight as a young teenager | |
| | | Socialisation / adopting their values and norms | |
| | 11.(Media) | Negative reporting or lack of reporting or can persuade towards negative attitudes | |
| | | EG Focus on Ryan Giggs alleged indiscretions | |
| | | BAHL Images of sports stars such as Wayne Rooney smoking | |
| | 12.(Opportunities) | Limited opportunity or provision to participate | |
| | | EG No ice rinks near = don't like ice skating | |
| | | BAHL Limited NHS help to stop smoking = don't want to give up | |

| Question | | Answer | Guidance |
|----------|-----------------------------------|---|----------|
| | Describe how you towards sport. | might change negative attitudes into positive attitudes | |
| | 13.(Cognitive dissonance) | Cognitive dissonance theory | |
| | 14.(Change Cognitive component) | Cognitive element is changed Through education new information or changing/reinforcing belief | |
| | 15.(Change Affective component) | Change Affective component -Through new experience or making the activity fun | |
| | 16.(Change behavioural component) | Change behavioural component -Through reward or punishment - Positive reinforcement | |
| | 17.Attributional retraining | Change—uncontrollable attributions / reasons to controllable or internal attributions eg I have control in changing my own diet | |
| | | change stable attributions to unstable attributions eg I have the power to change my behaviour and be more healthy | |
| | 18.Persuasion | Persuasion/persuasive communication needs to be from high status model/role model/significant other message relevance | |
| | 19.(watching) | Watching others who are getting something out of sport • Use of vicarious experiences | |

| Question | | Answer | Guidance |
|----------|-----------------|---|----------|
| | 20.(success) | Give success or less emphasis on competition or make it enjoyable • redefine success/raise confidence/self-efficacy • Make skill easier (to give success) • -goal setting (SMART to give success) • Give positive experiences | |
| | 21.(arousal) | Lower anxiety/ arousal or use encouragement. • Arousal affected in different ways / inverted U / catastrophe theories | |
| | 22.(Goals) | SMART(er) Goal setting • Apply aspect of SMART to show how it can change attitudes | |
| | 23.(Popularity) | Change in popularity of sport / fashion in sport / sports equipment Sport is attitude object that has been changed Eg Gum shields are modernised to encourage positive attitudes to them | |
| | 24.(Peers) | Peer pressure / support Friends / peers have shown positive attitudes to sport Want to remain in a group or belong to a group or be accepted | |

Section B2 Biomechanics

| Q | uestio | n | Answer | Marks | Guidance |
|-------|--------|--|--|-------|---|
| 4 (a) | | 5 marks for 5 of 2 marks max for dia Free Body Diagram player during take of the following take of the followi | agram to show vertical forces acting on basketball | 5 | 2 marks sub max for diagram 3 marks sub max for explanation |
| | | (3 marks sub-max) 3. (Relationship) | R > W means there is an unbalanced force acting on basketballer. | | |
| | | 4. (Relationship) | R > W means there is a net / upward force. | | |
| | | 5. (Impact) | Therefore there is an upwards acceleration. | | |
| | | 6. (Impact) | The bigger the reaction force, the greater the net upward force / the greater the upwards acceleration / the greater the height achieved by the basketball player. | | |

| Q | uestion | | Answer | Marks | Guidance | |
|---|---------|---------------------------|--|-------|--|--|
| 4 | (b) | gain mark) (sub max 4) | naximise stability (Must use practical example to | 5 | Sub max four for maximising stability Sub max three marks for minimising stability Note – Only <u>5 marks max</u> for question | |
| | | 1. (Centre of mass) | Lowering centre of mass/centre of gravity. eg Ski jumpers bending their knees on landing. | | | |
| | | 2. (Base of support) | Increasing size of base of support or increasing the number of points of contact. eg Footballers widen their stance in contact situations. / Eg gymnastics bridge position | | | |
| | | 3. (Line of gravity 1) | Making line of gravity / centre of mass / centre of gravity central to base of support. eg Sprint start the 'on your marks' position is more stable then the 'set' position. | | | |
| | | 4. (Line of gravity 2) | Making line of gravity / centre of mass / centre of gravity closer to a resistance force / point of contact. eg Rugby players lean forwards into a tackle. | | | |
| | | 5. (Increasing mass) | Increasing body mass. eg American Footballers put on weight to make it more difficult for opposition to knock them over. | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

| a performer might of use practical exammax three marks) Reduce movement time) | To reduce movement time. Eg Set position in | | |
|--|---|--|--|
| movement | | | |
| | sprint start in 100m / take your marks in swimming. | | |
| ncrease speed) | To increase speed. Eg Leaning forwards when running to make your line of gravity lie outside your base of support. | | |
| Change direction) | To change direction quickly or increase agility. Eg When swerving in a game of rugby. | | |
| otation) | To rotate from take off. eg leaning forwards to jump with spin in gymnastic somersault | | |
| Unpredictable) | Decrease stability of the ball in flight by using no spin. Eg football penalty applying force through centre of mass. | | |
| Range of ion/stretch) | To increase stretch eg when defending in netball line of gravity lies outside base of support/decreased points of contact / raised centre of mass/gravity | | |
| | otation) Jnpredictable) Range of | outside your base of support. To change direction quickly or increase agility. Eg When swerving in a game of rugby. To rotate from take off. eg leaning forwards to jump with spin in gymnastic somersault Decrease stability of the ball in flight by using no spin. Eg football penalty applying force through centre of mass. Range of ion/stretch) To increase stretch eg when defending in netball line of gravity lies outside base of support/decreased points of contact / raised | outside your base of support. To change direction quickly or increase agility. Eg When swerving in a game of rugby. To rotate from take off. eg leaning forwards to jump with spin in gymnastic somersault Unpredictable) Decrease stability of the ball in flight by using no spin. Eg football penalty applying force through centre of mass. Range of To increase stretch eg when defending in netball line of gravity lies outside base of support/decreased points of contact / raised |

| Question | | | Marks | Guidance |
|----------|---|---|-------|--|
| 4 (c) | 5 marks for 5 of: Effect of topspin on flight | path of a ball (sub max 2) | 5 | Sub max 2 for description of the effect of topspin Sub max 4 for explanation of bounce |
| | 1.(Dip) | Causes ball to 'dip' in flight / follow a non-parabolic or asymmetric flight path. | | |
| | 2.(Reduce distance) | Reduces the (horizontal) distance covered. | | |
| | 3.(More predictable) | Flight path becomes more predictable to | | |
| | Effect of topspin on boun | read/accurate ce of ball (sub max 4) | | |
| | Effect of topspin on boun 4. (Surface of ball) | ce of ball (sub max 4) (On bouncing) bottom surface of ball wants to slide backwards. | | |
| | Effect of topspin on boun 4. (Surface of ball) 5. (Friction opposing) | ce of ball (sub max 4) (On bouncing) bottom surface of ball wants to slide backwards. Friction opposes this sliding motion | | |
| | Effect of topspin on boun 4. (Surface of ball) | ce of ball (sub max 4) (On bouncing) bottom surface of ball wants to slide backwards. | | |
| | Effect of topspin on boun 4. (Surface of ball) 5. (Friction opposing) | ce of ball (sub max 4) (On bouncing) bottom surface of ball wants to slide backwards. Friction opposes this sliding motion Friction acts in same direction of motion / | | |

| Que | estion | | | Marks | Guidance |
|-----|--------|---|--|--|--|
| 4 | (d)* | Explain how rotation is initial Describe the angular analog board diver performing son during the following phase: • Take off from the diving b • During flight • Just before entry into the Indicative Content: | gue of Newton's First Law of Motion and use it to explain how a high mersaults uses their body position to maximise performance s of the dive: oard | 20 | Give KU for relevant knowledge points (usually main headings) Give DEV for relevant development points (usually bullet points) Give EG for relevant practical examples |
| | | 1. (Axes of rotation) | Longitudinal axis • Head to toe • Eg Spin in a discus turn | | Always indicate the Level at the base of the answer (L1,L2, L3 or L4) |
| | | 2. | Transverse axis | | Do not be limited by the indicative content give credit for other relevant |
| | | 3. | Frontal axis Front to back Eg Cartwheel in gymnastics | | points or developments. |
| | | Explain how rotation is | | Do not give credit to irrelevant material | |
| | | 4. (Initiation of rotaton) 5. | Off centre / eccentric force (Reaction) Force applied outside axis of rotation / centre of mass Eg diver leans backwards at take off in a backward somersault / high board diver leans forwards at take off to clear the board Free body diagram showing R force from point of contact passing in front or behind the centre of mass Gives Moment of Force / Torque/couple | | |
| | | | Force x distance from fulcrum Gives object Angular Momentum | | |

| uestion | | | Marks | Guidance |
|---------|---------------------------------|--|-------|----------|
| | how a high board diver pe | logue of Newton's First Law of Motion and use it to explain erforming somersaults uses their body position to maximise ollowing phases of the dive: | | |
| | 6. (Analogue of N1) | The angular momentum of a rotating body will remain constant unless acted upon by an external torque/moment of force/eccentric force • Also known as the Law of Conservation of Angular Momentum Eg the diver will not rotate until a torque/moment of force is applied • e.g. the diver will continue to rotate with constant angular momentum, • until acted upon by an external torque/ moment of force | | |
| | 7. | Angular momentum refers to the amount/quantity of angular motion a (rotating) body possesses / is a measure of angular motion. Depends on its moment of inertia and angular velocity. AM = moment of inertia x angular velocity / lw Moment of inertia is resistance of an object to rotation/ rotational equivalent of inertia. Depends on distribution of mass from the axis of rotation Angular velocity is the rate of change of angular displacement / angular displacement/time (rads.s)/ rate of spin. | | |
| | 8. (Take off from diving board) | MI is high Divers mass is distributed away from axis of rotation / centre of mass Eg Diver is in a straight body position at take off | | |

| Question | | | Marks | Guidance |
|----------|---|--|-------|----------|
| | 9. | (Angular Momentum) given to diver about transverse axis of rotation. Reaction force from feet acts outside of the centre of mass of the diver. Shown through diagram | | |
| | 10. | Angular velocity is low Rate of spin is low. increases control going into the rotation/ somersault | | |
| | 11. (During flight) | MI is reduced Diver's mass is brought closer to axis of rotation Eg diver tucks up | | |
| | 12. | Angular velocity / rate of spin increases Because Angular Momentum is conserved/remains constant Eg This means diver can perform more somersaults during dive. | | |
| | 13. (Just before entry in to the water) | | | |
| | 14. | Angular velocity is reduced Prevents over rotation on entry Eg Diver's entry is safer / scores better | | |

Section B: Exercise and Sport Physiology (Option B3)

| Question | | Answer | Marks | Guidance |
|----------|--|--|-------|--|
| 5 (a) | during a game using the 6 marks for 6 of: Sub max 4 per energy sy | team sport, describe how players resynthesise ATP ATP/PC system and lactic acid system. ystem (including example/s) | 6 | Theory must be linked to correct named energy system Appropriate team sport |
| | Alactic/ATP/ PC (must be named) 1. (intensity/duration) 2. (fuel) 3. (energy yield) 4. (process) 5.(enzyme) 6.(Coupled reaction) 7. (location) Lactic acid (must be named) 8. (intensity/ duration) 9. (fuel) 10. (energy yield) 11. (process) 12.(enzyme action) 13. (process) 14.(enzyme action) | e.g from a team sport. Sprinting to get to a ball/ to defend/ make a tackle/ powerful shot on goal/ jump/block/spike (or equiv) Aspects / examples of the game that are high intensity and short duration / <10 seconds (Fuel is) PC/ phosphocreatine (Generate) 1 (mole) of ATP (per PC) / 1:1 ATP:PC Breakdown PC to creatine and phosphate with energy released (used to resynthesise ATP) using the enzyme creatine kinase coupled reaction or PC→P + C + energy and energy + P + ADP → ATP (Takes place in the muscle) sarcoplasm e.g from a team sport Counter attack/ turnover/attack at goal (or equiv) High intensity aspects of a longer duration/up to 3 minutes (Fuel is) glycogen/glucose or carbohydrate (Energy yield is) 2 (moles) ATP (per glycogen/glucose) or 1:2 glycogen/glucose:ATP Glycogenolysis or glycogen to glucose glycogen phosphorylase/GPP/GP converts glycogen to glucose (Anaerobic) glycolysis PFK converts glucose to pyruvic acid or (then) LDH converts pyruvic acid to lactic acid | | examples should be accepted. Do not give a mark for a team sport example unless it is for pts 1 or 8. Do not accept incorrect examples Alactic/ATP/ PC system accept any suitable example: (Very) high intensity, up to 10 seconds. Lactic acid system accept any suitable example: high intensity, lasting over 10 seconds -3 mins. Accept: (location) sarcoplasm once only ie if pt 7 given then do not give point 15 |
| | 15. (location) | (Takes place in the muscle) sarcoplasm | | |

| Question | ı | Answer | Marks | Guidance |
|--------------|---|---|-------|----------|
| 5 (b) | energy system is u 4 marks for 4 of: | | 4 | |
| | Sub max 2 for each | i factor. | | |
| | Oxygen availability | Sub max 2 marks | | |
| | 1. (oxygen available) | If oxygen is available then the aerobic (energy) system would be predominant | | |
| | 2. (oxygen not available) | If no oxygen available then the anaerobic (energy) systems will be predominant or Alactic/ATP/PC/lactic acid system will be predominant | | |
| | 3. (short duration so oxygen unavailable) | If an activity has a very short duration/up to 10 secs then not enough time to transport oxygen to the working muscles therefore the predominant energy system would be the Alactic/ATP/PC system | | |
| | 4. (aerobic threshold) | If oxygen supply falls below the requirements then the lactic acid system would become predominant (in resynthesizing ATP) (the aerobic threshold would have been met) | | |
| | Fuel availability | Sub max 2 marks | | |
| | 5. PC stores) | If there are (sufficient) PC stores then the Alactic/ATP/PC energy system will be predominant for (very) high intensity/short duration exercise (< 10 seconds) | | |
| | 6. PC stores) | PC stores deplete quickly during very high intensity exercise (meaning that) the Alactic/ATP/PC system cannot be the predominant energy system for longer than 10 seconds. | | |
| | 7. (Glycogen) | If glycogen or carbohydrate/glucose is present then the aerobic system will be the predominant system or if the exercise (is high intensity) then lactic acid system is used. | | |

| Question | | Answer | Marks | Guidance |
|----------|--------------------------|---|-------|----------|
| | 8. (Glycogen) 9. (Fats) | The greater the liver/muscle glycogen/carbohydrate/glucose stores the longer the aerobic system can be the predominant system (even up to higher intensity exercise) Fats available then the aerobic system would be the predominant energy system | | |

| Question | | Answer | Marks | Guidance |
|----------|--|--|-------|--|
| 5 (c) | | are used as a method of improving recovery. Give an example of one aid. | 5 | Sub max 4 marks max for explanation of why cooling aids are used Sub max One mark for example of a cooling |
| | 1. (temperature) | Cooling aids can reduce (core) temperature or sustain exercise for longer in hot environment or delays overheating or prevents dehydration | | aid Do not accept: (the acronym) RICE (on its own) Do not accept 'reduce risk of injury' |
| | 2. (injury/pain) | Ice can be used to treat injuries by reducing pain/soreness | | |
| | 3. (swelling) | Cooling aids can be used to reduce swelling/oedema/inflammation | | |
| | 4. (vasoconstriction) | Cooling aids can result in vasoconstriction that reduces blood flow | | |
| | 5. (recovery after removal of cooling aid) | Flush of oxygenated blood / vasodilation helps remove lactic acid | | |
| | 6. (recovery after removal of cooling aid) | Flush of oxygenated blood helps to repair damage / reduces DOMS | | |
| | 7. (thermal strain) | Using cooling aids reduces thermal strain of competing in warm climates to help performance | | |

| Sub max 1 for: example of one cooling aid. 8. (examples) Ice or ice packs/wraps 9. (examples) Ice baths/ cold water (immersion) 10. (examples) Fan cooling 11. (examples) Cold water spraying | Question | | Answer | Marks | Guidance |
|--|----------|----------------------|-----------------------------------|-------------------|----------|
| 9. (examples) Ice baths/ cold water (immersion) 10. (examples) Fan cooling | | Sub max 1 for: examp | le of one cooling aid. | | |
| 10. (examples) Fan cooling | | 8. (examples) | Ice or ice packs/wraps | $\neg \mid \mid$ | |
| | | 9. (examples) | Ice baths/ cold water (immersion) | | |
| 11. (examples) Cold water spraying | | 10. (examples) | Fan cooling | | |
| | | 11. (examples) | Cold water spraying | | |
| 12. (examples) Cooling jacket/ vest | | 12. (examples) | Cooling jacket/ vest | | |

| 5 (| d)* Levels of Response | | |
|-----|--|--------|--|
| Le | vel 4 (18-20 marks) | At lev | vel 4 answers are likely to show: |
| Α | comprehensive answer: | • [| Detailed analysis that includes reasons for all aspects of the |
| • | detailed knowledge & excellent understanding | Q | graph |
| • | detailed analysis and excellent critical evaluation | | Nide range of ideas of how a coach could help improve a hockey |
| • | well-argued, independent opinion and judgements which are well | | player's performance and recovery |
| | supported by relevant practical examples | | ooth performance and recovery are covered evenly |
| • | very accurate use of technical and specialist vocabulary | | Good awareness of other factors that help to improve performance |
| • | high standard of written communication throughout. | | and recovery (i.e. not just recovery/rest) e.g. energy drinks/training methods |
| | vel 3 (13-17 marks) | At lev | vel 3 answers are likely to show: |
| A | competent answer: | • (| Good analysis of most aspects of the graph |
| • | good knowledge and clear understanding | | Some ideas of how a coach could help improve a hockey player's |
| • | good analysis and critical evaluation | | performance and recovery |
| • | independent opinions and judgements will be present but may not | | Points from both performance and recovery, however the balance |
| | always be supported by relevant practical examples | | may be uneven. |
| • | generally accurate use of technical and specialist vocabulary | | Some focus on other factors that help to improve performance |
| • | written communication is generally fluent with few errors. | | and recovery (i.e. not just recovery/rest) e.g. energy drinks/training methods |
| | vel 2 (8-12 marks) | At lev | vel 2 answers are likely to show: |
| A | limited answer: | • E | Basic analysis of most aspects of the graph |
| • | limited knowledge and understanding | | Some ideas of how a coach could help improve a hockey player's |
| • | some evidence of analysis and critical evaluation | • | performance and recovery |
| • | opinion and judgement given but often unsupported by relevant | | both performance and recovery are covered, however this may be |
| _ | practical examples | | superficial. |
| • | technical and specialist vocabulary used with limited success | | _imited/no focus on other factors that help to improve performance and recovery |
| • | written communication lacks fluency and contains errors. vel 1 (0 – 7 marks) | | vel 1 answers are likely to show: |
| | basic answer: | | pasic analysis of some aspects of the graph / mostly descriptive |
| • | basic answer. basic knowledge and little understanding | | nave limited points about how a coach could help improve a |
| • | little relevant analysis or critical evaluation | | nockey player's performance or recovery |
| • | little or no attempt to give opinion or judgement | | only covers performance or recovery |
| • | little or no attempt to give opinion of judgement | | mainly focus on rest periods during and after the game |
| • | errors in written communication will be intrusive. | | Some inaccuracies |
| | one of the second secon | | |
| | | | |

| Question | | | Marks | Guidance |
|----------|--|--|-------|--|
| S (d)* | Indicative Content: [No credit for describing Analyse the physiologica 1. (PC stores) 2. (Lactic acid – lactacid/slow stage) 4. (Lactic acid) | Imeasurements shown on the graph for the hockey player: PC stores are 100 %/ high because after 3 minutes they are fully restored • 50 % recovery after 30 seconds • Energy + P + C = PC • First stage of EPOC/ alactacid/oxygen debt /rapid recovery stage Lactic acid stores are still high because the hockey player has not had time to oxidise the lactic acid • Worked anaerobically • Hasn't had chance within 5 minutes to perform an effective cool down. Lactic acid is removed by the slow stage of recovery/ EPOC/lactacid/oxygen debt • lactacid stage which wouldn't have had chance to take effect / complete within 5 minutes / takes more time to complete. • Lactic acid is oxidised / converted to pyruvic acid Converted to glycogen (glyconeogenesis / glucose (gluconeogenesis) / protein (cori cycle) / sweat / urine Is not at maximum level because the hockey player may have started a cool down which would have started to help remove the lactic acid Maintained venous return, resulting in the removal of lactic acid Flush muscle with oxygenated blood increasing speed of lactic acid removal The hockey player may have been working aerobically and so already had an opportunity to remove some of the lactic acid during performance / active recovery. | 20 | For the graph look for analysis / explanation (because). Give KU for relevant knowledge points (usually main headings) Give DEV for relevant development points (usually bullet points) Give EG for relevant practical examples Always indicate the Level at the base of the answer (L1,L2, L3 or L4) Do not be limited by the indicative content give credit for other relevant points or developments. Do not give credit to irrelevant material |

| Question | | | Marks | Guidance |
|----------|------------------------|---|-------|---|
| | 5. (Muscle glycogen) | Muscle glycogen is low because the hockey player will have used their stores / fuel • during glycogenolysis / conversion to glucose for glycolysis/ anaerobic glycolysis/ aerobic glycolysis | | |
| | 6. (Muscle glycogen) | This is depleted because the performer will not have had chance to eat any carbohydrate after the game / post-event meal • so they will not have had chance to restore their stores | | |
| | 7. (Muscle glycogen) | Not empty because they may have had an energy / isotonic / glucose drink to help maintain blood glucose levels • May have had something to eat at half time, for examples banana/jelly babies/energy bar • Pre-competition meal • may have followed a carbo-loading programme previous to the game so had very high stores to begin with. | | |
| | 8. (Heart rate) | Heart rate is still high following the end of the game because this helps help maintain blood flow. This helps to maintain oxygen supply to the muscles Which helps to remove lactic acid Which helps reduce oxygen deficit Which helps replenish ATP, PC and glycogen stores. Helps to remove CO2 | | Points may refer to performance or recovery or both – this should be taken into account when deciding on the level. |
| | 9. (Heart rate) | Maintain venous return Prevent blood pooling Helps remove lactic acid from muscles | | |
| | 10. (Respiration rate) | High respiration rate diffuses more oxygen into the capillaries Which helps to remove lactic acid Which helps reduce oxygen deficit and OBLA Which helps replenish ATP and glycogen stores. Helps to remove CO2 | | |

| Question | | | Marks | Guidance |
|----------|---|--|-------|----------|
| | 11. (Respiration rate & alactacid debt) 12. (Respiration rate & lactacid debt) | High respiration rate is needed because the alactacid stage of recovery requires 3-4 litres of oxygen to continue aerobic energy production / in order to restore ATP/PC stores High respiration rate is needed because the lactacid stage of recovery requires 5-8 litres of oxygen to continue aerobic energy production in order to remove | | |
| | Manufadan of manayan | lactic acid | | |
| | | y to help improve performance and recovery | | |
| | 13. (warm up) | Completing a warm up prior to the game will increase respiration and therefore oxygen supply so the performer can | | |
| | | perform more aerobically reducing the oxygen deficit so aiding recovery. Delays OBLA | | |
| | | Reduces build-up of lactic acidReduces O2 deficit | | |
| | 14. (subs/time wasting) | A coach could use substitutions to allow players recovery Whilst the substitution is being made other players may benefit from 30 seconds recovery to restore ATP/PC stores Coach could use time-wasting tactics eg fake injury etc | | |
| | 15. (tactics) | A coach could employ pacing tactics to control the intensity of the game to allow players time to recover • E.g. playing the ball around the back to keep possession to allow players 30 seconds to restore ATP/ PC stores • Eg. Man to man versus zonal marking | | |
| | 16. (nutrition- pre competition meal/ snack) | Would encourage players to eat a high carbohydrate meal pre competition (2-4 hours before) Increase blood glucose so they can maintain glycolysis for longer Pre competition snack e.g. banana/ chocolate bar/glucose tablet / gel | | |

| Question | | | Marks | Guidance |
|----------|--|--|-------|----------|
| | 17. (energy drinks – pre and inter match) | Players could have (hypotonic or isotonic) energy drinks just prior to and during the game to avoid dehydration as a supply of glucose. replenish glycogen stores Allow you to perform aerobically for longer and therefore limit the time needed for recovery | | |
| | 18. (nutrition during game) | Players could consume a small amount of carbohydrates at half time to replenish glycogen stores/ delay fatigue Banana/ Jelly babies Glucose tablets/ gels | | |
| | 19. (training - interval) | A coach could use (interval) training to help the hockey player increase their tolerance to lactate • Short work and short rest/ 1:2/ 10 seconds work and 20 seconds recovery • Apply the principle of overload to the lactic acid system so that the hockey player would have a higher tolerance to lactic acid delay OBLA / buffer hydrogen ions and therefore limit its effects on performance. • Would also aid recovery as less lactic acid build up as body becomes more efficient at using/ removing lactic acid. • Periodisation | | |
| | 20. (work rest ratios) | Understanding recovery would allow a coach to use work rest ratios to train the body to become more efficient at replenishing ATP/PC stores. • 10 seconds work:1 minute rest/ 1:3+ • Which would help the hockey player recover during a game • Active recovery during rest to speed up removal of lactic acid | | |
| | 21. (training – anaerobic – ATP/PC stores) | Anaerobic training can help to increase ATP/PC stores which will enable the hockey player to maintain high intensity exercise for longer | | |

| Question | | | Marks | Guidance |
|----------|--|---|-------|----------|
| | 22. (training-improving VO ₂ max) | Training for longer duration/ 1:1 / 1:05 helps to increase VO₂ max resulting in hockey player being able exercise aerobically for longer limiting anaerobic energy production so improving performance due to not having to rely on the lactic acid energy system as much and therefore not generating as much lactic acid. Would enable a quicker recovery due to less lactic acid. | | |
| | 23. (delay thresholds) | Aerobic and anaerobic training will help delay the ATP/PC and lactic acid thresholds / anaerobic threshold • meaning the players can work at all intensities for longer • delay OBLA • aids removal of lactic acid | | |
| | 24. (energy drinks – post match) | Coaches could provide hypertonic energy drinks to aid recovery to help replenish glycogen. To help replenish glycogen Help rehydration/ recovery to enable them to perform again quickly. | | |
| | 25. (nutrition -post game) | The coach could advise/ encourage the player to eat a high carbohydrate meal 1 hour after the football game to help restore glycogen More effective recovery if combined with protein. | | |
| | 26. (ice/ cooling aids) | If performing in hot conditions then ice/ cooling aids could be used to reduce core temperature to prevent fatigue. Aid up recovery by bringing more oxygen to remove lactic acid Remove waste products to help recovery Reduce DOMS Prevents swelling / DOMS | | |

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| estion | | | Marks | Guidance |
|--------|------------------------------------|--|-------|----------|
| | 27. (Loading / supplementation) | Soda loading | | |
| | 28. (Very high intensity training) | Very high intensity training / strength training Increases muscle mass / storage capacity for ATP/PC | | |
| | 29. (cool down) | Complete an (active cool down Heart rate / respiratory rate maintained helps to maintain oxygen supply to the muscles helps to remove lactic acid | | |

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