

Student number



Personal Development, Health and Physical Education

General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using blue or black pen
- Write your student number at the top of this page and pages 10 and 13

Total marks – 100

Section I – Pages 2–15

60 marks

This section has two parts, Part A and Part B

Part A – 20 marks

- Attempt Questions 1–20
- Allow about 40 minutes for this part

Part B – 40 marks

- Attempt Questions 21–22
- Allow about 1 hour and 10 minutes for this part

Section II – Pages 16–17

40 marks

- Attempt TWO questions from Questions 23–27
- Allow about 1 hour and 10 minutes for this section

1 Which health condition is responsible for the most number of deaths in Australia each year?

- (A) Stroke
- (B) Lung cancer
- (C) Breast cancer
- (D) Cardiovascular disease

2 The points below represent characteristics associated with a particular type of cancer.

- 16% lower testing rate among people in this category
- the cancer is likely to be at a more advanced stage when diagnosed
- reduced access to urologists
- distance from treatment services

Which cancer issue is characterised by the features listed above?

- (A) Increased rates of prostate cancer experienced by men in rural areas
- (B) Increased rates of breast cancer experienced by women over 40 years
- (C) Increased rates of lung cancer experienced by young people in urban areas
- (D) Increased rates of skin cancer experienced by young people under 25 years

3 What is a limitation associated with relying on life expectancy data as the primary measure of health status?

- (A) Life expectancy rates are only accurate for a short period of time
- (B) Life expectancy rates do not provide information about quality of life
- (C) Life expectancy rates are disproportionately influenced by infant mortality rates
- (D) Life expectancy rates are only applicable to people born in the year in which the data is collected

- 4 Why are health conditions occasionally added to the list of National Health Priority Areas?
- (A) To attract media attention for the purpose of maintaining community focus on the importance of good health
 - (B) To coincide with medical advances so that political benefits can be derived from the subsequent improvements in health status
 - (C) Because many health conditions previously listed as priority areas have been adequately addressed and can therefore be replaced
 - (D) Because health is dynamic and new epidemiology data can indicate that some health conditions now satisfy criteria for inclusion as a priority area
- 5 The table below provides data about changing patterns of overweight and obesity in school-age girls and boys between 1997 and 2004.

Gender	1997	2004
Girls	20.5%	23.7%
Boys	20.2%	26.1%

Source: 2004 NSW Schools Physical Activity and Nutrition Survey

What immediate implications do these changing patterns of overweight and obesity in boys and girls have for the public health system?

- (A) More money will need to be spent on treating cardiovascular diseases occurring in children
- (B) More money will need to be devoted to health promotion strategies targeting disordered eating
- (C) More money will need to be spent on strategies promoting physical activity and healthy eating practices
- (D) More money will need to be allocated to enhancing treatment services for all National Health Priority Areas

6

- 7 Which of the following government initiatives best represents action to directly address the health needs of priority population groups?
- (A) A program that delivers nutritious foods to rural and remote communities
 - (B) Building physical activity facilities in an existing park for young people
 - (C) Closing two existing smaller hospitals and replacing them with one new large hospital
 - (D) Reducing the level of tax on superannuation money when it is accessed by people upon retirement
- 8 In what way can an individual best contribute to building healthy public policy?
- (A) By attaining educational qualifications
 - (B) By refusing to vote at political elections
 - (C) By volunteering at a community health centre
 - (D) By writing letters about health issues to the editors of newspapers
- 9 Why are many alternative health care products and services commonly referred to as complementary health care?
- (A) Because they are free of charge under Medicare
 - (B) Because they are free of charge under private health insurance policies
 - (C) Because they can replace traditional health care products and services
 - (D) Because they can be used in conjunction with traditional health care products and services

- 10** The table below contains data about the amount of funding spent annually on public health care facilities and services by the Commonwealth and State/Territories Governments.

Year	Total Government Public Health Expenditure	Amount Spent Per Person (average)
2001 – 2002	\$1091 million	\$55.84
2002 – 2003	\$ 1200 million	\$60.75
2003 – 2004	\$ 1266 million	\$63.31

Source: The Australian Institute of Health and Welfare

Why have the changes in annual expenditure on public health care facilities and services been necessary?

- (A) Increased immigration rates; increased unemployment
 - (B) Increased use of private health care; increased expenditure on health promotion
 - (C) Increased costs associated with providing modern medical services; an ageing population
 - (D) Increased membership of private health care funds; more doctors electing to use bulk billing
- 11** What is the main factor causing fatigue in the lactic acid energy system?
- (A) Glycogen depletion
 - (B) Phosphocreatine depletion
 - (C) Accumulation of lactic acid
 - (D) Decreasing levels of fat stores
- 12** What is the reversibility effect for athletes when they cease regular strength training?
- (A) Increased body fat as a result of muscle turning into fat
 - (B) Muscle atrophy as a result of muscle fibres reducing in size
 - (C) Increased flexibility as a result of muscles not being so tight
 - (D) Increased power as a result of increasing the strength-to-body weight ratio

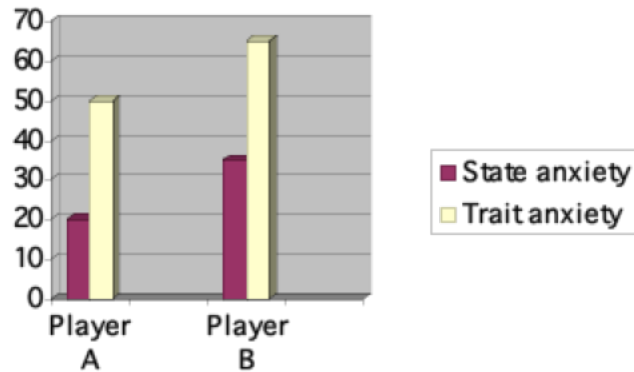
- 13 The table below presents data about aerobic training using the FITT principle.

Principle	Application to Aerobic Training
Frequency	5 – 6 times per week
Intensity	70% of maximum heart rate
Time	40 – 50 minutes
Type	Jogging and cycling

In order to derive greater aerobic training benefits what immediate changes to the training plan would be most appropriate?

- (A) Increase frequency to 7 times per week
 - (B) Reduce training time to 30 – 40 minutes
 - (C) Increase intensity to 80% of maximum heart rate
 - (D) Change the type of training to walking and swimming
- 14 A decrease in resting heart rate is a training adaptation that occurs in response to aerobic training. What are the related adaptations for stroke volume and cardiac output at rest?
- (A) Stroke volume increases; cardiac output decreases
 - (B) Stroke volume decreases; cardiac output increases
 - (C) Stroke volume increases; cardiac output remains the same
 - (D) Stroke volume decreases; cardiac output remains the same
- 15 What is the main purpose of using positive motivation strategies with athletes?
- (A) To protect the self esteem of the athlete
 - (B) To reinforce desirable behaviours and encourage them to continue
 - (C) To instill fear into the athlete so that undesirable behaviours are discouraged
 - (D) To ensure that athletes receive prizes that are appropriate rewards for their achievements

- 16 The graph below represents anxiety levels experienced by two athletes of similar ability completing the same movement skill under the same conditions.

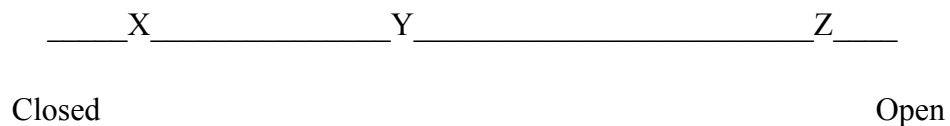


Which of the following statements is a valid interpretation from the anxiety levels of Player A and Player B?

- (A) Player A is more likely to complete movement skills successfully when under pressure in a game situation
 - (B) Player B is more likely to complete movement skills successfully when under pressure in a game situation
 - (C) Player A and B need state and trait anxiety levels to be equal in order to complete movement skills successfully
 - (D) Players A and B need state and trait anxiety levels to be zero in order to complete movement skills successfully
- 17 What are likely consequences from inadequate fluid intake prior to and during movement performance?
- (A) Increased body temperature and premature fatigue
 - (B) Increased body temperature and increased urination
 - (C) Reduced body temperature and reduced urination
 - (D) Reduced body temperature and increased perspiration

- 18** In which circumstance would the massed practice method be most appropriate?
- (A) When coaching a team whose motivation level is low
 - (B) When coaching a team of children who are new to the sport
 - (C) When coaching an adult team who are playing the sport for recreational purposes
 - (D) When coaching a national representative team whose players live in different parts of the country

- 19** The diagram represents a continuum on which skills can be classified ranging from closed to open.



Which movement skills are represented by X, Y and Z?

- (A) X = putting in golf; Y = juggling balls; Z = batting in softball
 - (B) X = putting in golf; Y = throwing darts; Z = serving in tennis
 - (C) X = playing a badminton rally; Y = rowing; Z = high diving
 - (D) X = playing a badminton rally; Y = throwing a javelin; Z = weightlifting
- 20** When judging a dance competition the following processes are put in place:
- A panel of five experienced judges is used
 - For each performance three judging scores are counted, with the highest and lowest scores being discarded
 - A set of prescribed criteria is used by all judges
 - Competitors and the audience are familiar with the prescribed criteria being used

What is the purpose of implementing this judging process?

- (A) To increase subjectivity and validity
- (B) To increase objectivity and reliability
- (C) To increase subjectivity and reliability
- (D) To increase objectivity and subjectivity

2006 TRIAL HSC EXAMINATION
Personal Development, Health
and Physical Education

Section I (continued)

Part B – 40 Marks

Attempt Questions 21 and 22

Allow about 1 hour and 10 minutes for this part

Answer the questions in the spaces provided

In your answers you will be assessed on how well you:

- demonstrate an understanding of health and physical activity concepts
 - apply the skills of critical thinking and analysis
 - illustrate your answers with relevant examples
 - present ideas in a clear and logical way
-

Marks

Question 21 – Health Priorities in Australia (20 marks)

- (a) In relation to ONE National Health Priority Area outline reasons why some groups are especially at risk.

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Question 21 continues on page 11

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Question 21 (continued)

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End of Question 21

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Section I – Part B (continued)

In your answers you will be assessed on how well you:

- demonstrate an understanding of health and physical activity concepts
 - apply the skills of critical thinking and analysis
 - illustrate your answers with relevant examples
 - present ideas in a clear and logical way
-

Marks

Question 22 – Factors Affecting Performance (20 marks)

- (a) Recommend a type of flexibility training that would be suitable for a person who plays sport once per week at a social level.

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Question 22 continues on page 14

Question 22 (continued)

Marks

- (b) Explain how the duration and the intensity of physical activity influence the contribution made by each energy system to ATP production.

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Question 22 continues on page 15

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2006 TRIAL HSC EXAMINATION
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Section II

40 marks

Attempt TWO questions from Questions 23–27

Allow about 1 hour and 10 minutes for this section

Answer each question in a SEPARATE writing booklet

In your answers you will be assessed on how well you:

- demonstrate an understanding of health and physical activity concepts
 - apply the skills of critical thinking and analysis
 - illustrate your answers with relevant examples
 - present ideas in a clear and logical way
-

Marks

Question 23 – The Health of Young People

- (a) Justify how developing a sense of connectedness can help young people attain better health. 8
- (b) Critically evaluate the health of Australia's young people and implications this has for the future. 12

Question 24 – Sport and Physical Activity in Australian Society

- (a) Justify the importance of sport being equally accessible for males and females. 8
- (b) Critically evaluate ways in which mass media coverage can impact on a sport. 12

In your answers you will be assessed on how well you:

- demonstrate an understanding of health and physical activity concepts
 - apply the skills of critical thinking and analysis
 - illustrate your answers with relevant examples
 - present ideas in a clear and logical way
-

Marks

Question 25 – Sports Medicine

- (a) Justify the need for drug testing in sport. 8
- (b) Critically evaluate the appropriateness of resistance training for young athletes. 12

Question 26 – Improving Performance

- (a) Justify the use of overload techniques when training for strength. 8
- (b) Critically evaluate the importance of tapering in the lead up to a competition. 12

Question 27 – Equity and Health

- (a) Justify the importance of strengthening disadvantaged communities as a strategy for addressing health inequities. 8
- (b) Critically evaluate the view that Australia embraces diversity in ways that promote health. 12

End of paper

Student number

Multiple Choice Answer Sheet

1	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
2	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
3	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
4	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
5	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
6	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
7	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
8	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
9	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
10	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
11	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
12	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
13	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
14	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
15	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
16	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
17	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
18	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
19	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>
20	A	<input type="radio"/>	B	<input type="radio"/>	C	<input type="radio"/>	D	<input type="radio"/>

**2006 Trial HSC Examination
PDHPE**

Mapping grid

Question	Marks	Content	Syllabus Outcomes	Targeted Performance Band
1	1	Epidemiology	H2	2-3
2	1	Cancer	H1, H2	3-4
3	1	Epidemiology	H2	3-4
4	1	NHPA	H1, H4	4-5
5	1	Health promotion	H4, H15	4-5
7	1	Priority population groups	H3, H4	4-5
8	1	Building healthy public policy	H4, H5	4-5
9	1	Alternative health care	H4	4-5
10	1	Health care expenditure	H5	5-6
11	1	Energy systems	H7	3-4
12	1	Reversibility	H7	3-4
13	1	FITT	H8, H10	4-5
14	1	Adaptations to training	H7, H8	4-5
15	1	Motivation	H11	3-4
16	1	Anxiety	H11	5-6
17	1	Fluid intake	H7, H11	4-5
18	1	Massed practice	H9, H10	4-5
19	1	Open and closed skills	H9, H10	4-5
20	1	Judging performance	H9, H16	5-6
21 (a)	5	NHPA; groups at risk	H2, H3	3-4
(b)	15	Health care facilities and services	H4, H5, H15	5-6
22 (a)	4	Flexibility training	H8, H10	3-4
(b)	8	Energy systems	H7	4-5
(c)	8	Carbohydrate loading	H10, H11	4-5
23 (a)	8	Connectedness	H6, H15	2-4
(b)	12	Young people's health status	H2, H15	4-6
24 (a)	8	Gender	H12	2-4
(b)	12	Mass media	H12, H16	4-6
25 (a)	8	Drug testing	H8, H13	2-4
(b)	12	Resistance training for young athletes	H8, H17	4-6
26 (a)	8	Overload techniques	H8, H10	2-4
(b)	12	Tapering	H7, H8, H10	4-6
27 (a)	8	Disadvantaged communities	H4, H14, H15	2-4
(b)	12	Diversity	H14, H15	4-6

Suggested answers and marking criteria

Multiple choice

1	D		11	C	16	A	
2	A	7	A	12	B	17	A
3	B	8	D	13	C	18	D
4	D	9	D	14	C	19	A
5	C	10	C	15	B	20	B

Question 21 - Health Priorities in Australia

21. a) In relation to ONE National Health Priority Area outline reasons why some groups are especially at risk.

5

Outcomes Assessed: H2, H3

Suggested Answer

- One of the following NHPAs could be selected: cardiovascular disease, cancer, injury, mental health, diabetes or asthma.
- Groups commonly experiencing health inequities include: Aboriginal and Torres Strait Islanders, socioeconomically disadvantaged, Australians born overseas, people living in rural and isolated locations, people living with disabilities, gender and age groups. Common reasons why some groups are especially at risk include the impacts of social determinants such as: socioeconomic status, education, employment, ethnicity, gender, age and geographic location of residence.
- In order to *outline* candidates need to sketch in general terms the reasons why some groups are at risk of a specific NHPA and indicate the main features of these risks. For example, young people are at a stage of life where they are gaining increasing responsibilities without necessarily having the knowledge, skills, attitudes and experience to manage the responsibilities effectively. This is true for driving and contributes to young people having higher rates of road and traffic related injuries.

Criteria	Marks
<ul style="list-style-type: none">• Outlines a range of reasons why some groups are especially at risk of a NHPA• Illustrates answer with relevant examples	5
<ul style="list-style-type: none">• Outlines how some groups experience health inequities with limited links to a specific NHPA OR <ul style="list-style-type: none">• Outlines a NHPA with some links to groups at risk• Includes examples	3-4
<ul style="list-style-type: none">• Identifies some groups experiencing health inequities OR <ul style="list-style-type: none">• Outlines a NHPA OR <ul style="list-style-type: none">• Lists some social determinants	1-2

21. b) Evaluate the extent to which public health care facilities and services have contributed to achieving better health for all Australians. **8**

Outcomes Assessed: H4, H5, H15

Suggested Answer

- The health status of Australians has been improving steadily in recent decades as evidenced by increasing life expectancy, decreasing infant mortality rates, positive self-reporting survey results about quality of life, declining mortality rates for nearly all NHPAs as well as morbidity trends that reflect declining incidence of many NHPAs. In cases where increased incidence is present it is usually as a result of greater awareness and early intervention.
- Public health care facilities and services can be viewed as making a positive contribution to achieving better health for Australians, e.g. Australians generally have excellent access to necessary medical care through Medicare. This means that cost is removed as a barrier for important diagnosis and treatment services, thus enabling people to partake in preventative check ups, seek early intervention when necessary and be treated extensively when required. Similarly the Pharmaceutical Benefits Scheme (PBS) provides subsidized access to important drug therapies. Other features that have made a positive contribution to the health of Australians include the Medicare Safety Net that covers medical costs once the threshold is met in any calendar year and the capacity to have additional health cover through private health insurance if that is viewed by the individual as important.
- Some negative impacts also exist, such as: reduced access to public health care facilities and services in many regional, rural and remote communities as a result of distance and geographic isolation as well as limited numbers of doctors and other health care personnel in these areas; improved health not evident for some population groups such as ATSI; and the detrimental impacts on health resulting from limited hospital bed numbers and lengthy waiting lists for non-essential but still important surgery.
- In order to *critically evaluate*, candidates need to make judgments with a high degree of accuracy and depth by addressing a broad range of relevant impacts that includes both positive and negative impacts that health care provision has had on the health of all Australians.

Criteria	Marks
<ul style="list-style-type: none"> • Makes detailed and accurate judgments about the extent to which public health care facilities and services have contributed to achieving better health for all Australians • Addresses both positive and negative impacts on the health of all Australians • Illustrates answer with relevant and accurate examples • Presents ideas in a clear and logical way 	7-8
<ul style="list-style-type: none"> • Discusses, with some judgments, the extent to which public health care facilities and services have contributed to better health for Australians • Illustrates answer with examples • Presents ideas in a clear and logical way 	5-6
<ul style="list-style-type: none"> • Describes features of the public health care system with some links to the impact on health <p>OR</p> <ul style="list-style-type: none"> • Describes the health status of Australians with limited links to public health care and facilities • Includes examples 	3-4
<ul style="list-style-type: none"> • Identifies some features of the public health care system <p>OR</p> <ul style="list-style-type: none"> • Identifies some characteristics of the health status of Australians 	1-2

Question 22 - Factors Affecting Performance

22. a) Recommend a type of flexibility training that would be suitable for a person who plays sport once per week at a social level.

4

Outcomes Assessed: H8, H10

Suggested Answer

- Types of flexibility training commonly include static, proprioceptive neuromuscular facilitation (PNF), dynamic and ballistic. Of these, static stretching would be most appropriate for a person playing sport once per week socially. Reasons include: it is generally considered to be safest; it is effective at preparing for activity; it is effective for preventing injury; and it is easy to do. Static stretching involves holding the muscle for 15-30 seconds in a stretched position at which tension is felt but pain or discomfort are not present.
- PNF stretching or dynamic stretching could possibly be used but these are slightly more complex and carry a slightly higher risk of injury. Ballistic stretching is not recommended for a person at this level.
- In order to *recommend*, candidates need to provide valid reasons in favour of a selected type of flexibility training.

Criteria	Marks
<ul style="list-style-type: none">• Provides valid reasons why a selected type of flexibility training is suitable for a person playing sport once per week socially• Includes examples	4
<ul style="list-style-type: none">• Identifies a type of flexibility training and provides some supporting reasons for its use	3
<ul style="list-style-type: none">• Identifies features of flexibility training OR <ul style="list-style-type: none">• Outlines basic reasons supporting flexibility training	2
<ul style="list-style-type: none">• Lists types of flexibility training OR <ul style="list-style-type: none">• Identifies issues relating to social sport participants	1

22. b) Explain how the duration and the intensity of physical activity influence the contribution made by each energy system to ATP production.

8

Outcomes Assessed: H7

Suggested Answer

- The duration and the intensity of physical activity are the two factors that determine the proportion in which each energy system will contribute to ATP production. All 3 energy systems usually make some contribution to ATP production for a given activity but the duration and intensity will influence the proportions in which they contribute.
- In circumstances where intensity is very high, duration can only be maintained at this level for a short period of time. This is because ATP production will predominantly be via the ATP-PC system which lasts approximately 10-12 seconds at maximal levels of intensity. Examples include 100-metre sprinting. When intensity is at a moderate to high level, duration at this intensity can be maintained for slightly longer (30 seconds to 3 minutes) because increased reliance is now placed on the Lactic Acid system. Examples include 400-metre running. In order to maintain activity for long durations, intensity must be lower (e.g. below the Anaerobic threshold) as this will enable the Aerobic system to be dominant. Examples include 1500-metre running.
- In order to *explain* candidates need to relate cause and effect by making evident the relationship between duration, intensity and the resulting contribution made by each of the 3 energy systems.

Criteria	Marks
<ul style="list-style-type: none"> • Makes evident the significance of the relationship between the duration and the intensity of physical activity to ATP production by each of the 3 energy systems • Illustrates answer with relevant examples • Presents ideas in a clear and logical way 	7-8
<ul style="list-style-type: none"> • Describes ways that duration and intensity of physical activity can impact on energy systems OR <ul style="list-style-type: none"> • Describes features of each of the energy systems with links to duration and intensity • Includes examples 	5-6
<ul style="list-style-type: none"> • Outlines features of the energy systems with limited links to duration and intensity OR <ul style="list-style-type: none"> • Outlines how EITHER the duration OR the intensity of physical activity relates to ATP production OR <ul style="list-style-type: none"> • Outlines some ways that duration and intensity can influence energy needs or the energy systems 	3-4
<ul style="list-style-type: none"> • Identifies some features of energy systems OR <ul style="list-style-type: none"> • Identifies some facts about duration and/or intensity of physical activity 	1-2

22. c) Discuss the effectiveness of carbohydrate loading in preparation for aerobic performance.

8

Outcomes Assessed: H10, H11

Suggested Answer

- Carbohydrate loading is generally recognised as an effective nutritional practice to use in the lead up to aerobic performance. A number of methods can be used. These include: carbohydrate depletion then repletion phases; slightly increasing carbohydrate consumption during the tapering phase; and other variations. Evidence generally supports the view that by consuming additional carbohydrates in the days prior to aerobic performance, higher levels of glycogen (the form that carbohydrates are stored in the body) will be stored and therefore available for use as an energy source by the athlete during their aerobic performance. Since carbohydrates (glycogen) are the most efficient source of fuel for aerobic energy production, this is advantageous to performance.
- Alternatively, some athletes have a personal preference not to consume additional carbohydrates in the days leading up to performance as they are often tapering their training volumes and intensities at this stage and they feel that the additional carbohydrates are not being burnt off and may be stored as fat. Also, some athletes perceive that this practice makes them feel bloated and lethargic. If using the depletion/repletion method significant discomfort can be generated for the athlete. Regardless of the validity of these feelings, it is important to consider that if the practice of carbohydrate loading makes the athlete feel psychologically less prepared to compete, then this must be balanced up against any potential physiological benefits.
- In order to *discuss*, candidates need to identify issues and provide points for and/or against the effectiveness of carbohydrate loading to aerobic performance. For example, candidates may take the position that a variety of carbohydrate loading methods may need to be trialled with the athlete and the method ultimately selected, if any, is done so in consultation with the athlete and based on what impacts most positively on results and the personal preference of the individual athlete.

Criteria	Marks
<ul style="list-style-type: none"> • Discusses the effectiveness of carbohydrate loading in preparation for aerobic performance • Addresses a broad range of issues associated with benefits to performance from using or not using carbohydrate loading • Presents ideas in a clear and logical way 	7-8
<ul style="list-style-type: none"> • Explains the process of carbohydrate loading in preparation for aerobic performance with links to its effectiveness • Addresses issues associated with carbohydrate loading • Presents ideas in a clear and logical way 	5-6
<ul style="list-style-type: none"> • Describes carbohydrate loading • Makes links to aerobic performance OR <ul style="list-style-type: none"> • Outlines ways that carbohydrate loading can be effective in preparation for aerobic performance 	3-4
<ul style="list-style-type: none"> • Identifies some features of carbohydrate loading OR <ul style="list-style-type: none"> • Identifies some features of preparing for aerobic performance 	1-2

Question 23 - The Health of Young People

23. a) Justify how developing a sense of connectedness can help enable young people attain better health.

8

Outcomes Assessed: H6, H15

Suggested Answer

- Connectedness refers to positive feelings of attachment and belonging. The connectedness may be to another significant individual, a number of individuals, groups of people, communities, places and/or events. Examples include having positive relationships and feeling connected to family members, peers, teachers, religious groups, sporting teams or the local community.
- Research suggests that connectedness helps promote positive self-concepts among young people, build self esteem and enhance resilience. Each of these outcomes is considered to be a protective factor and subsequently health-enhancing. For example during times of adversity young people who have a strong sense of connectedness will have good support networks to access as well as a level of personal resilience to help them bounce back from these life challenges.
- In order to *justify* candidates need to support the argument or conclusion that connectedness is positively linked to attaining better health. This may be demonstrated through arguments such as the notion that feeling connected to something or someone generates feelings of care and responsibility. For example, by feeling connected to a local community young people are less likely to place that community at risk by driving dangerously.

Criteria	Marks
<ul style="list-style-type: none">• Provides a range of relevant reasons that clearly supports how connectedness can help young people attain better health• Illustrates answer with relevant and accurate examples• Presents ideas in a clear and logical way	7-8
<ul style="list-style-type: none">• Explains reasons why connectedness can be linked to good health• Provides relevant examples	5-6
<ul style="list-style-type: none">• Outlines some reasons why connectedness is important OR <ul style="list-style-type: none">• Describes features of connectedness• Includes examples	3-4
<ul style="list-style-type: none">• Identifies why good health is important OR <ul style="list-style-type: none">• Identifies some features of connectedness OR <ul style="list-style-type: none">• Identifies examples of connectedness	1-2

23. b) Critically evaluate the health of Australia's young people and implications this has for the future.

12

Outcomes Assessed: H2, H15

Suggested Answer

- Generally speaking, young people enjoy good health, e.g. young people have lower rates of CVD, cancer and diabetes than other population groups. In circumstances where mortality and morbidity rates are higher than for other population groups, improvements are often present e.g. declining road-related injuries and higher rates of mental illness resulting from an increased willingness to seek diagnosis and treatment.
- Young people have higher levels of education than previous generations. More young people now attain formal education qualifications and they are better informed about health-related matters. Compulsory PDHPE in Years K-10 and greater access to health information via the internet and other forms of media have contributed positively.
- Despite the many positives some health concerns exist for young people. In comparison to other population groups young people are more likely to consume illicit substances and they have higher rates of sexually transmitted infections, risk-taking and road-related injuries, mental illness and asthma. The presence of multiple risk factors increases the potential for long-term health problems despite being currently asymptomatic, e.g. smoking, physical inactivity and poor dietary practices.
- In order to *critically evaluate*, candidates need to make judgements about the health of young people with an added degree of depth and accuracy. This can be demonstrated in ways such as acknowledging both the positive and negative elements of young people's health and making judgements about likely future trends. For example, young people's health is likely to continue to improve in line with increasing levels of education. This may be reflected in the continuing levels of good health for the current generation of young people as they age or in the improving health of subsequent generations of young people.

Criteria	Marks
<ul style="list-style-type: none"> • Critically evaluates a broad range of positive and negative features of young people's health and makes clear judgements about future implications • Supports answer with relevant examples • Presents ideas in a clear and logical way 	10-12
<ul style="list-style-type: none"> • Discusses, with some evaluation, a range of features about the health of young people and possible implications • Includes examples • Presents ideas in a clear and logical way 	7-9
<ul style="list-style-type: none"> • Describes some features of the health of young people OR <ul style="list-style-type: none"> • Outlines features of the health of young people and makes basic judgements 	4-6
<ul style="list-style-type: none"> • Identifies relevant features OR <ul style="list-style-type: none"> • Makes some basic judgements OR <ul style="list-style-type: none"> • Lists relevant examples 	1-3

Question 24 - Sport & Physical Activity in Australian Society

24. a) Justify the importance of sport being equally accessible for males and females.

8

Outcomes Assessed: H12

Suggested Answer

- Participation in sport promotes a range of outcomes that are beneficial to people regardless of gender. Examples include enhancing self esteem, social networking, stress release, skill development and protecting against a range of lifestyle diseases such as CVD and Type 2 diabetes.
- Currently it would be fair to argue that sport is more accessible at all levels to males. Participation levels in organised sport are higher for males in junior and adult levels and the capacity to compete in sport professionally is far more restricted for female athletes. Socially constructed views of masculinity and femininity have contributed to these patterns and there is a need to continue challenging gender stereotypes and inequities.
- In order to *justify*, candidates need to support the argument or conclusion that sport should be equally accessible for males and females. This may be done through acknowledging the positive outcomes possible for both genders and the need to redress current inequities.

Criteria	Marks
<ul style="list-style-type: none">• Provides a range of relevant reasons that clearly supports sport being equally accessible to males and females• Illustrates answer with relevant and accurate examples• Presents ideas in a clear and logical way	7-8
<ul style="list-style-type: none">• Explains reasons why sport should be equally accessible to males and females• Provides relevant examples	5-6
<ul style="list-style-type: none">• Outlines some reasons why sport should be equally accessible to males and females OR <ul style="list-style-type: none">• Describes features of sports participation by males and females• Includes examples	3-4
<ul style="list-style-type: none">• Identifies why males and females participate in sport OR <ul style="list-style-type: none">• Identifies some features of sports participation OR <ul style="list-style-type: none">• Identifies examples of males and female issues in sport	1-2

24. b) Critically evaluate ways in which mass media coverage can impact on a sport.

12

Outcomes Assessed: H12, H16

Suggested Answer

- Mass media coverage can impact in a range of both positive and negative ways on a sport. Positive impacts include: increased income for the game and individuals involved in it as a direct result of being more attractive to potential sponsors and advertisers; increased participation at a junior level as a result of more children and young people being exposed to and inspired by the sport; and increased viewers/spectators as mass media coverage often ‘legitimises’ a sport in the public’s mind and acts to promote discussion.
- Negative impacts include: the need to accommodate sponsors demands such as players attending corporate functions and maintaining squeaky clean public images; modifying playing conditions; adjusting durations and start/finish times to accommodate media schedules and deadlines; and lost privacy for players as the public becomes more curious about their private lives.
- To *critically evaluate* this issue, candidates need to make judgements about ways in which mass media coverage can impact on a sport with an added degree of depth and accuracy. For example, candidates should weigh up a range of positive and negative impacts before making some judgements about whether or not the value derived from mass media coverage is of sufficient worth to a sport.

Criteria	Marks
<ul style="list-style-type: none">• Critically evaluates a broad range of positive and negative ways mass media coverage can impact on a sport, making clear judgements about the value mass media coverage does or doesn’t provide to a sport• Supports answer with relevant examples• Presents ideas in a clear and logical way	10-12
<ul style="list-style-type: none">• Discusses, with some evaluation, a range of ways mass media coverage can impact on a sport• Includes examples• Presents ideas in a clear and logical way	7-9
<ul style="list-style-type: none">• Describes some ways mass media coverage can impact on sport with limited judgements about the value OR <ul style="list-style-type: none">• Outlines ways mass media coverage can impact on sport and makes basic judgements about the value	4-6
<ul style="list-style-type: none">• Identifies relevant impacts OR <ul style="list-style-type: none">• Makes some basic judgements OR <ul style="list-style-type: none">• Lists relevant examples	1-3

Question 25 - Sports Medicine

25. a) Justify the need for drug testing in sport.

8

Outcomes assessed: H8, H13

Suggested Answer

- Drugs are available that can enhance performance in a range of sports. As such, drug testing in sport helps to maintain the integrity of sport by promoting an environment in which performances can only be improved legitimately by physical and skill training, dietary practices and psychological strategies. Drug testing reduces the likelihood of competitors using drugs to artificially enhance performance. This is particularly comforting to competitors who want to be successful but do not wish to take drugs and are concerned that they may be placed at a disadvantage if drug use by others is left unchecked. Drug testing also serves to protect some competitors from themselves. Many competitors are so highly motivated and focused on success that they are prepared to risk their health to achieve it. Potential penalties if caught out include public exposure, fines and suspensions.
- Drug testing has an indirect social benefit as drugs on the IOC banned list include many ‘recreational drugs’ such as cannabis, cocaine and ecstasy. This is a protective factor for competitors as well as an example of role modelling for the general public.
- In order to *justify*, candidates need to support the argument or conclusion that drug testing is needed in sport. While some candidates may also examine limitations of the drug testing process this is not essential to answering the question.

Criteria	Marks
<ul style="list-style-type: none">• Provides a range of relevant reasons that clearly supports the need for drug testing in sport• Illustrates answer with relevant and accurate examples• Presents ideas in a clear and logical way	7-8
<ul style="list-style-type: none">• Explains reasons why drug testing is needed in sport• Provides relevant examples	5-6
<ul style="list-style-type: none">• Outlines some reasons why drug testing is used in sport OR <ul style="list-style-type: none">• Describes features of the drug testing process• Includes examples	3-4
<ul style="list-style-type: none">• Identifies why drug testing is used in sport OR <ul style="list-style-type: none">• Identifies some features of the drug testing process OR <ul style="list-style-type: none">• Identifies examples of drug use in sport	1-2

25. b) Critically evaluate the appropriateness of resistance training for young athletes.

12

Outcomes Assessed: H8, H17

Suggested Answer

- Resistance training can be used safely and effectively by young athletes providing certain measures are in place that take into consideration the limited experience and physical maturation of the athlete.
- Measures that help ensure resistance training is safe and effective include: focusing predominantly on loads that are in the lower range with repetitions in the higher range (e.g. 8 – 16 reps); sets that are in the lower range; training times that are in the lower range (e.g. approximately 30 minutes); and substantial periods of time between training sessions (e.g. at least 3 days). Of significant importance at this stage is a focus on developing correct technique. Undertaking exercises that use body weight as the resistance is another useful strategy for young athletes particularly in the early stages.
- In order to *critically evaluate*, candidates need to make judgements about resistance training issues and accurately address in detail reasons for and/or against it being used by young athletes. For example, candidates may acknowledge ways that resistance training can be used safely and effectively (as listed above) and balance that up by recognising that it is inappropriate for young athletes to train using heavy loads or performing complex power lifts because of their physical immaturity and lack of skill development.

Criteria	Marks
<ul style="list-style-type: none">• Critically evaluates the appropriateness of resistance training for young athletes by making clear judgements about ways it can be safe and effective, as well as potentially harmful• Supports answer with relevant examples• Presents ideas in a clear and logical way	10-12
<ul style="list-style-type: none">• Discusses, with some evaluation, how resistance training can be either appropriate or inappropriate for young athletes• Includes examples• Presents ideas in a clear and logical way	7-9
<ul style="list-style-type: none">• Describes some issues related to resistance training and young athletes and makes limited judgements about its appropriateness OR <ul style="list-style-type: none">• Outlines issues related to resistance training and young athletes and makes basic judgements about its appropriateness	4-6
<ul style="list-style-type: none">• Identifies issues related to resistance training OR <ul style="list-style-type: none">• Makes some basic judgements about young athletes OR <ul style="list-style-type: none">• Lists relevant examples	1-3

Question 26 - Improving Performance

26. a) Justify the use of overload techniques when training for strength.

8

Outcomes Assessed: H8, H10

Suggested Answer

- The use of overload techniques is a reflection of Progressive Overload, which is a fundamental principle of training. By using overload techniques in strength training additional stress is placed on the muscle so that the muscle is forced to adapt over time. The adaptations can include increased strength, power and hypertrophy. These are common goals of athletes undertaking strength training and so therefore the use of these techniques has merit.
- The additional loads and stress are introduced gradually and in a controlled manner so that the potential for injury is low. Examples of overload techniques for strength include forced repetitions, pyramid sets, drop sets and super sets.
- In order to *justify* the use of overload techniques, candidates need to support the argument or conclusion that they are beneficial to promoting strength development and achieving related goals. For example, overload techniques can be used effectively so that strength gains are made, related movement performances are improved and the potential for injuries remains low.

Criteria	Marks
<ul style="list-style-type: none">• Provides a range of relevant reasons that clearly supports the use of overload techniques for strength training• Illustrates answer with relevant and accurate examples• Presents ideas in a clear and logical way	7-8
<ul style="list-style-type: none">• Explains reasons why overload training is used• Provides relevant examples	5-6
<ul style="list-style-type: none">• Outlines some reasons why overload training is used OR <ul style="list-style-type: none">• Describes features of overload training• Includes examples	3-4
<ul style="list-style-type: none">• Identifies why overload training is used OR <ul style="list-style-type: none">• Identifies some features of overload training OR <ul style="list-style-type: none">• Identifies examples of strength training	1-2

26. b) Critically evaluate the importance of tapering in the lead up to a competition.

12

Outcomes Assessed: H7, H8, H17

Suggested Answer

- Tapering is a common strategy used by athletes in preparation for important competition events. The purpose is to ensure that the athlete has had a full recovery from their training program or any lead up competitions and is in peak condition for a specific competition. Tapering typically involves reducing training volumes and intensities in the 7-10 days leading up to the competition event. Elite athletes generally taper fully for 2 competition events per year. Beyond the 2 major annual events, athletes may undertake a modified 1-2 day taper for other events.
- Strength, power and speed athletes typically taper for slightly longer, while endurance athletes typically taper for slightly less.
- In order to *critically evaluate* the importance of tapering candidates need to make a judgement of value about tapering and address in detail the potential outcomes or results from tapering. For example, candidates may identify the need to ensure that lactic acid levels are low and glycogen storage levels are high as valid reasons for deeming tapering a worthwhile strategy. Conversely, the concerns expressed by some athletes at the psychological let down that sometimes accompanies full tapering or the proneness to illness during this time as factors reducing its value.

Criteria	Marks
<ul style="list-style-type: none">• Critically evaluates the value of tapering for athletes by making clear judgements about potential positive and negative outcomes• Supports answer with relevant examples• Presents ideas in a clear and logical way.	10-12
<ul style="list-style-type: none">• Discusses, with some evaluation, how tapering can provide a range of outcomes for athletes• Includes examples• Presents ideas in a clear and logical way.	7-9
<ul style="list-style-type: none">• Describes some issues about tapering by athletes with limited judgements OR <ul style="list-style-type: none">• Outlines issues about tapering by athletes and makes some basic judgements	4-6
<ul style="list-style-type: none">• Identifies some aspects about tapering. OR <ul style="list-style-type: none">• Makes some basic judgements about preparing for competition OR <ul style="list-style-type: none">• Lists relevant examples.	1-3

Question 27 - Equity and Health

27. a) Justify the importance of strengthening disadvantaged communities as a strategy for addressing health inequities.

8

Outcomes Assessed: H4, H14, H15

Suggested Answer

- Without specific support to help disadvantaged communities overcome the factors that contribute to them being disadvantaged then these communities are doomed to either remain disadvantaged or struggle to overcome it. For example, communities with disproportionately low levels of education, low SES and poor health status need to be supported to address these barriers.
- Examples of ways that disadvantaged communities can be strengthened include: promoting a sense of ownership in relation to strategies designed to improve their circumstances rather than simply imposing strategies on them; providing additional resources or reallocating them more effectively; and supporting the development of effective leadership structures within the community.
- In order to *justify* candidates need to support the argument or conclusion that strengthening disadvantaged communities is a valid strategy for addressing health inequities. For example by providing additional tertiary opportunities to members of disadvantaged communities or providing additional funding subsidies to help them overcome the education and SES disadvantages they face health status within this community can be improved. This is because education and SES are highly linked to one another and to health status.

Criteria	Marks
<ul style="list-style-type: none">• Provides a range of relevant reasons that clearly supports the need to strengthen disadvantaged communities to address health inequities• Illustrates answer with relevant and accurate examples• Presents ideas in a clear and logical way	7-8
<ul style="list-style-type: none">• Explains reasons why strengthening disadvantaged communities is done• Provides relevant examples	5-6
<ul style="list-style-type: none">• Outlines some reasons why disadvantaged communities receive assistance OR <ul style="list-style-type: none">• Describes features of strengthening disadvantaged communities• Includes examples	3-4
<ul style="list-style-type: none">• Identifies why some communities are disadvantaged OR <ul style="list-style-type: none">• Identifies some disadvantaged communities OR <ul style="list-style-type: none">• Identifies examples of assistance provided	1-2

27. b) Critically evaluate the view that Australia embraces diversity in ways that promote health.

12

Outcomes Assessed: H14, H15

Suggested Answer

- The views on diversity demonstrated by Australia as a nation and by individuals and groups within Australia are wide and varied. These views are also dynamic; they change in response to emotive events and political actions. Examples of emotive events include the Cronulla Riots, the refugees issue, immigration, and the health of Aboriginal and Torres Strait Islanders.
- The key to this question is the capacity for candidates to link their critical evaluation of the issue and any examples raised directly to the impacts these have on health. For example, racially motivated violence can be seen as not embracing diversity and harmful to health as a result of the physical effects of the violence as well as negative impacts on social and emotional health. Alternatively, arguments could be made that advocacy by social justice groups, elements of the media and concerned individuals for child refugees who have been held in detention centres has led to a more humane and healthy political response.
- In order to *critically evaluate*, candidates need to make judgements with an added degree of depth. For example, this could be demonstrated by establishing whether or not Australia does embrace diversity or identifying circumstances where it is embraced and others where it isn't embraced. Once this has been established it is paramount that clear links are made to the extent to which this does or doesn't promote health.

Criteria	Marks
<ul style="list-style-type: none">• Critically evaluates the extent to which Australia embraces diversity and the impacts this can have for health by making clear judgements about potential positive and negative outcomes• Supports answer with relevant examples• Presents ideas in a clear and logical way.	10-12
<ul style="list-style-type: none">• Discusses, with some evaluation, how diversity is or isn't embraced and provides a ranges of health outcomes• Includes examples• Presents ideas in a clear and logical way.	7-9
<ul style="list-style-type: none">• Describes some issues about diversity with limited judgements OR <ul style="list-style-type: none">• Outlines issues about diversity and makes some basic judgements	4-6
<ul style="list-style-type: none">• Identifies some aspects about diversity OR <ul style="list-style-type: none">• Makes some basic judgements about health OR <ul style="list-style-type: none">• Lists relevant examples.	1-3