SHORE

Exam Number: ☐☐☐

Year 12

Personal Development, Health and Physical Education

HSC Trial Examination

2019

General instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black or blue pen
- Write your exam number at the top of this page

Total marks – 100

Section 1 Pages 3 - 18

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 section

Part B – 40 marks

- Attempt Questions 21 – 28
- Allow about 1 hour and 10 minutes for this part

Section 2 Pages 19 - 20

40 marks

- Attempt TWO questions from Questions 29 - 33
- Allow about one hour and 10 minutes for this section
- Complete each option in separate booklets

Note: Any time you have remaining should be spent revising your answers.

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Section I

Part A – 20 marks
Attempt Questions 1 – 20
Allow about 40 minutes for this section

Use the multiple-choice answer sheet for Questions 1 – 20

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1. Cardiovascular disease is a leading cause of illness and death in Australia.
   What is a modifiable factor for cardiovascular disease?

   A) Age

   B) Heredity

   C) UV exposure

   D) Smoking

2. Which one of the following is the correct order for an athlete progressing through the stages of skill acquisition?

   A) Cognitive, autonomous, associative

   B) Autonomous, associative, cognitive

   C) Cognitive, associative, autonomous

   D) Associative, cognitive, autonomous

3. What positive impact are emerging new treatments and technology having on health care?

   A) More expensive health care services

   B) Early detection and treatment of disease is possible

   C) More visits to medical professionals are required

   D) An ageing population requiring more treatment

4. A coach provides feedback to an athlete after their performance. This is considered what type of feedback?

   A) Internal feedback

   B) External feedback

   C) Concurrent feedback

   D) External & internal feedback

5. What is the Ottawa Charter action area that focuses on a public health approach working with communities attempting to do?

   A) Strengthening community action

   B) Developing personal skills

   C) Reorientation health services

   D) Building health public policy

6. How can intrinsic motivation of an athlete best be described?

   A) As motivation that comes from prize money and rewards

   B) As motivation that comes from the coach

   C) As motivation that comes from both the athlete and the coach

   D) As motivation that comes from within the athlete

7. Australia spends a large amount of money on health care each year.
   Where is the majority of this money spent?

   A) Curative services

   B) Early intervention programs

   C) Mental Health facilities

   D) Health promotion campaigns

8. Caffeine is a stimulant that can affect an athlete's performance in a range of ways. Which of the following would be considered a negative side effect for an aerobic athlete?

   A) Increased arousal

   B) Vasodilation of blood vessels in the brain

   C) Decreased perceived exertion

   D) Diuretic effect

9. The Australian government spends a large amount of money on Medicare. Why are financial incentives offered to people who take out or hold private health insurance?

   A) Increase the cost of health care to individuals that can afford it

   B) Reduce the burden on Medicare

   C) Decrease the Medicare levy at tax time

   D) Encourage people to claim extras through private health insurance

10. What is the predominant energy system used by an athlete who competes in a 10,000 metre track event?

    A) Alactacid

    B) Lactic

    C) Anaerobic

    D) Aerobic

11. Current data indicates a large gap exists between Indigenous and Non-Indigenous health in Australia. What factor would contribute to this gap?

    A) Non-Indigenous Australians have a lower life expectancy

    B) Indigenous Australians have a higher life expectancy

    C) Indigenous Australians have a higher rate of preventable disease

    D) Non-Indigenous Australians have a higher rate of infant mortality

12. What is an example of a sport which uses objective measures of performance?

A) A surfer in a competition

B) A diver in a diving competition

C) A sprinter in a 100 m race

D) A gymnast performing a floor routine in a gymnastics competition

13. What are some of the problems that the health care system will face in relation to an ageing population?

A) Workforce shortages, availability of volunteers to meet demand

B) High demand for health services, availability of carers and volunteers to meet demand

C) Increased demand for services, decreased chronic diseases in the aging population

D) Increased demand for health services, decreased demand for careers in the workforce

14. Stretching is considered important for athletes and should be performed slowly. Which one of the following methods has the greatest potential to cause muscle damage?

A) Static stretching

B) Ballistic stretching

C) Dynamic stretching

D) Proprioceptive neuromuscular facilitation (PNF)

15. Which health care facilities and services are State Governments responsible for?

A) Public hospitals & family health services

B) Pharmaceutical Benefits Scheme

C) Medicare

D) Immunisation clinics

16. What is the name of the muscle contraction that occurs when the muscle is under tension, but the length of the muscle is unchanged during the contraction?

A) Isotonic

B) Isometric

C) Eccentric

D) Concentric

17. Which of the following is a cancer of the skin, lungs, and breast?

A) Sarcoma

B) Leukaemia

C) Carcinoma

D) Lymphoma

18. Which of the following traits would best describe how the characteristics of a learner can influence skill acquisition and the performance of skills?

A) Personality, heredity, confidence, prior experiences, ability

B) Character, genetics, assurance, confidence, ability

C) Personality, heredity, prior understandings, poise, ability

D) Heredity, self-confidence, prior practices, composure, ability

19. Which of the following is the best example of Equity?

A) All Australians have access to health care services

B) Community is involved in the decision-making process

C) A lack of justice and fairness for all

D) Social and economic differences between populations

20. How do we determine if a test is valid?

A) The test results can be repeated

B) The test is dependent on the extent of its measurement error

C) The test cannot produce repeatable results

D) The degree to which a test measures what it is designed to measure

Section I (continued)

Part B – 40 marks
Attempt Questions 21-28
Allow about 1 hour and 10 minutes for this part

Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.
Extra writing space is provided on page 17. If you use this space, clearly indicate which question you are answering.

Question 21 (3 marks)
Epidemiology is used as a measure of health status. Explain the limitations of epidemiology.

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Question 22 (4 marks)
What are the benefits of private health insurance for the Australian population?

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Question 23 (5 marks)
Discuss the reasons for the growth in complementary and alternative health care approaches, products and services in Australia.

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Question 24 (8 marks)
Describe the five (5) specific criteria used in identifying priority health issues for Australia.

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Question 25 (3 marks)
Outline the nutritional considerations of athletes during a sporting performance.

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Question 26 (4 marks)
Describe two (2) recovery strategies that benefit performance.

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Question 27 (5 marks)
Describe two (2) psychological strategies an athlete could use to enhance motivation and manage their anxiety.

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Question 28 (8 marks)
Explain the physiological adaptions an athlete experiences in response to training.

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Section I Part B extra writing space.

If you use this space, clearly indicate which question you are answering.

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Section II

40 marks
Attempt any TWO questions from Questions 29-33
Allow about 1 hour and 10 minutes for this section
Answer BOTH questions in a writing booklet. Extra writing books are available.

Your answers you will be assessed on how well you:
■ demonstrate knowledge and understanding of health and physical activity concepts relevant to the question
■ apply the skills of critical thinking and analysis
■ communicate ideas and information using relevant examples
■ present a logical and cohesive response

Question 29 – The Health of Young People. (20 marks)

(a) Explain how young people prioritise and value their health by relating to the developmental aspects that affect the health of young people.
8

(b) Explain the skills young people can use to experience good health. **12**

Question 30 – Sport and Physical Activity in Australian Society. (20 marks)

(a) Explain how the meaning of physical activity and sport have influenced the lives and identities of Indigenous Australians. **8**

(b) Recently Tayla Harris who plays women's AFL was targeted on social media. Analyse how the social construction of gender reinforces or challenges traditional narrow understandings of gender in sport.
12

Question 31 – Sports Medicine (20 marks)

(a) Assess the factors a coach should consider to prevent medical conditions occurring in children and young athletes who are under their supervision. In your answer provide examples. **8**

(b) Justify the rehabilitation procedures used to manage specific sporting injuries. **12**

Question 32 – Improving Performance (20 marks)

(a) Explain the planning considerations needed to avoid overtraining of an athlete. **8**

(b) Justify each of the elements that need to be considered when designing a training session. **12**

Question 33 – Equity and Health (20 marks)

(a) Explain the actions that improve health when working for sustainable improvement for disadvantaged groups. **8**

(b) Analyse the characteristics required for an effective health promotion strategy to predict its potential for success. **12**

End of Paper

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Year 12

Personal Development, Health and Physical Education

HSC Trial Examination 2019

Marking Guidelines

SECTION 1 – PART A

Multiple-choice Answer Key

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

SECTION 1 – PART B

Question 21

Criteria	Marks
• Provides characteristics and features of the limitations of epidemiology	3
• Sketches in general terms some limitations of epidemiology	2
• Provides relevant information about a limitation of epidemiology	1

Sample answer
Epidemiology is used to provide information about a population. Limitations to epidemiology include not explaining the cause of the illness or disease as epidemiology focuses on the physical illness and no other causal factors, for example, sociocultural factors related to drinking or tobacco use. Information in epidemiology may be hard to collect such as in emergency situations or remote areas.

Question 22

Criteria	Marks
• Makes evident the benefits of private health insurance for the Australian population	4
• Sketches in general terms the benefits of private health insurance to the Australian population	2-3
• Provides relevant information about the benefits of private health insurance for the Australian population	1

Sample answer
There are two types of cover offered by private health insurance, Hospital and Ancillary cover:
Hospital Cover: depending on the level of cover, covers the individual for the charges occurred during their stay. However, it does not cover the gap if the doctor charges over the scheduled fee.
Ancillary Cover: enables individuals to claim benefits that are not covered under Medicare.
Private health insurance offers a range of benefits to the individual including:

- Individuals have peace of mind knowing that in the event of illness they have extra options available to them
- No waiting lists
- Choice of doctor
- Avoiding the extra charges at tax time depending on income.
- Can have your own room, if available
- Ancillary covers extra benefits e.g. ambulance, dental, optical, and others
- Choice of public or private hospital

The Government has openly encouraged the population to take out private health insurance by offering incentives to individuals that do so by:

- offering lifetime cover to encourage young people to join
- offering a rebate on private health insurance
- charging individuals an extra percentage at tax time if they earn over a certain amount of money.

Question 23

Criteria	Marks
• Provides reasons for and/or against the growth in complementary and alternative health care approaches, products and services in Australia	5
• Provides characteristics and features for the growth in complementary and alternative health care approaches, products and services in Australia	4
• Sketches in general terms reasons for the growth in complementary and alternative health care approaches products and services	2-3
• Identifies a reason for the growth in complementary and alternative health care approaches	1

Sample answer

Reasons for the growth in complementary and alternative health care approaches include more people being interested in natural healing methods. Many are looking to avoid drugs and have a more holistic approach towards their own health care. Complementary and alternative health care is not designed to replace modern medicine but complement it.

- Range of services available include acupuncture, homeopathy, massage and naturopathy
- Courses available and qualifications of practitioners include university courses and other recognised qualifications
- Covered by Ancillary cover under private health insurance include physiotherapy and naturopathy
- Side effects of prescription medicines
- Complementary and alternative health care approaches focus on prevention rather than cure of illnesses

Question 24

Criteria	Marks
• Provides accurate characteristics of the five specific criteria used in identifying priority health issues for Australia • Provides a range of relevant examples • Provides a logical and cohesive response	8
• Provides characteristics of the five specific criteria used in identifying priority health issues for Australia • Provides relevant examples	6-7
• Provides some characteristics of the criteria used in identifying priority health issues for Australia • May provides relevant examples	4-5
• Sketches in general terms some characteristics of priority health issues for Australia • May provide an example	2-3
• Provides some relevant information regarding the priority health issues in Australia	1

Sample answer

The **social justice principles** of equity, diversity and supportive environments are used to help determine health priority issues in Australia. Equity is the fair and equitable distribution of funding and resources which is evident in services such as Medicare. Diversity is recognising that Australia has a multicultural population and that their needs are met by, for example, including community groups in planning and decision-making regarding health issues which affect the community. Australians have a right to be healthy and environments need to be supportive through availability of services.

Priority population groups are determined to be groups experiencing health inequalities and include Aboriginal and Torres Strait Islanders, people living in rural and remote areas, the elderly, people with disabilities and people who were born overseas.

Prevalence of condition examines the number of cases of the illnesses or condition (morbidity) and looks at the leading causes of death (mortality). Examples of prevalent conditions include cardiovascular disease and cancer.

Potential for prevention and early intervention for those health issues where change to lifestyle behaviours can improve health and avoid future illness and disease.

Cost to the individual and community such as direct and indirect costs need to be evaluated for health issues. Direct costs can include the financial cost associated with their illness for the individual, including potential loss of income and doctor's bills, and for the community, where there are impacts on the Medicare system and PBS scheme. Indirect costs are the non-measurable costs such as the physical, social and emotional factors impacting on the individual, their family and their community. The community also may suffer from the individual's lack of health which contributes to their inability to be consistently at work and become a valuable member of the community.

Question 25

Criteria	Marks
• Sketches in general terms the nutritional considerations of athletes during a sporting performance • Provides an example	3
• Sketches in general terms the nutritional considerations of athletes during a sporting performance	2
• Provides some relevant information about nutritional considerations of athletes during a sporting performance	1

Sample answer
The nutritional considerations for an athlete during a sporting performance include rehydration and the need for additional fuel sources, if exercise lasts longer than 60 minutes. For example, in the Tour de France, fluids are replaced with drinks, gels and other carbohydrates.

Question 26

Criteria	Marks
• Provides characteristics and features of **TWO** recovery strategies that benefit performance • Provides relevant examples	4
• Sketches in general terms **TWO** recovery strategies that benefit performance Provides an example	2-3
• Provides some information about recovery strategies	1

Sample answer
Recovery strategies are designed to limit the injury and illnesses athletes could experience. Recovery strategies include:

- Physiological strategies:
    - Cool down – This provides athletes with physical and psychological benefits at the end of a training session or event. The cool- down including stretching, which helps reduce delayed onset muscle soreness.
    - Hydration – If the athlete has been exercising they would have been losing fluids through sweating and breathing which need to be replaced.
- Neural strategies: These aim to target the nervous system and decrease mental and physical fatigue.
    - Hydrotherapy – Involves immersion of the body in water. Hot water immersion increases blood flow and helps alleviate muscle soreness and fatigue. Cold water immersion helps relieve swelling, inflammation and pain from injuries.
    - Massage – Helps to decrease muscle soreness, increase joint flexibility, relieve tension and stress and help the athlete relax.
- Tissue damage strategies: Cryotherapy helps to relieve swelling of damaged tissues, relieve muscle soreness, move blood away from the extremities and remove waste products with it.

- Psychological strategies: Relaxation techniques and having adequate sleep help the athlete to recover from the rigors of training and competing.

Question 27

Criteria	Marks
• Provides detailed characteristics and features of TWO psychological strategies an athlete could use to enhance motivation and manage their anxiety • Provides relevant examples	5
• Provides characteristics or features of TWO psychological strategies an athlete could use to enhance motivation and manage their anxiety • Provides an example	3-4
• Sketches in general terms TWO psychological strategies an athlete could use to motivation and manage their anxiety	2
• Provides some relevant information about psychological strategies used to enhance motivation and manage anxiety	1

Sample answer

Concentration/attention skills: The ability of the athlete to focus on the task and eliminate all distractions is important if the athlete is to achieve their goal. Distractions can come from a variety of sources that may be environmental e.g. weather or the noise of the crowd. It could also come from the feeling of the player and the team.

Mental rehearsal/ Visualisation/ imagery: Is the process by which an athlete performs the required activity in their mind before the performance. For example, a gymnast visualises in their mind every movement of their floor routine before their performance.

Relaxation techniques: The athlete needs to respond to the performance appropriately without being too aroused or anxious. Techniques such as focusing on breathing, mental imagery/rehearsal, meditation and listening to music can enable the athlete to become more focused and feel more in control to complete the performance.

Goal-setting: Enables the athlete to focus on achieving long and short-term goals and experiencing success. This therefore helps with motivation and maintaining performances throughout the season.

Question 28

Criteria	Marks
• Makes evident how and why physiological adaptations occur in response to training • Provides relevant examples	8
• Provides characteristics and features of the physiological adaptations an athlete experiences in response to training • Provides relevant examples	6-7
• Provides some characteristics and features of the physiological adaptations an athlete experiences in response to training • May provide an example	4-5
• Sketches in general terms some characteristics and features of the physiological adaptations an athlete experiences in response to training	2-3
• Provides some relevant information regarding physiological adaptations	1

Sample answer
Athletes train to improve performance and physiological adaptions occur in response to training and include:

Resting heart rate: Is decreased due the heart being able to eject more blood (increased stroke volume) each beat becoming stronger and more efficient in response to training therefore, the minimum amount of blood needed to service the body at rest is met by less heart beats reducing the resting heart rate. For example, a trained athlete's resting heart rate could be around 60 bpm rather than 80 bpm due to adaptations as a result of training.

Stroke volume: Is the amount of blood the heart is able to pump each beat from the left ventricle. In response to training there is an increased amount of blood being ejected from the heart each contraction. As the heart becomes stronger in response to training, the volume of blood it can pump becomes greater enabling the athlete to maintain an optimal level of performance for a longer period of time. For example, a trained athlete's stroke volume could be around 90mls rather than 70mls due to adaptations as a result of training.

Cardiac output: As stroke volume increases so does cardiac output, therefore more blood leaves the heart each minute and more oxygen in the blood is then delivered to the working muscles. The heart muscle becomes stronger with more powerful contractions and can eject more blood each contraction in response to training. This enables the athlete to maintain a higher level of performance in aerobic events. For example, a trained athlete's increased cardiac output would enable them during exercise to pump more blood around the body compared to an untrained athlete.

Oxygen uptake: Increased amount of oxygen is absorbed due to the body's increased capacity to absorb oxygen in response to training. The more oxygen an athlete can transport around the body the longer they can maintain their performance at a higher level. This is measured through VO2 Max testing.

Lung capacity: Can be increased through increasing breaths per minute and the lungs can marginally increase in size and develop more capillaries. These adaptations occur due to the strengthening of the muscles around the lungs and the increase in the number of capillaries in

the lungs results in more blood being held in the capillaries and an increased ability to reoxygenate the blood. The better the lung function the better the ability of the athlete to perform.

Haemoglobin levels: They are increased due to training. The more haemoglobin an athlete has in their blood, the more oxygen they can carry to the muscles, resulting in less fatigue and improved performance in aerobic events. For example, altitude training or certain drugs can have this effect.

Muscle hypertrophy: Muscle size is increased as a result of strength or resistance training. Training causes the muscles to enlarge and increases their ability to store more ATP and glycogen stores.

Effect on fast/slow twitch muscle fibres: Training increases the capacity of the fibres to store the relevant fuel sources. Specific training causes fast-twitch fibres to increase ATP and PC storage with capacity for some red fast-twitch fibres to convert to white fast-twitch fibres and become more efficient in anaerobic events and slow-twitch fibres to store more glycogen and become more efficient in aerobic endurance events.

Section II

Question 31(a)

Criteria	Marks
• Demonstrates a clear understanding of factors a coach should consider to prevent medical conditions occurring in children and young athletes who are under their supervision • Provides a range of relevant examples • Provides a logical and cohesive response	8
• Provides characteristics and features of factors a coach should consider to prevent medical conditions occurring in children and young athletes who are under their supervision • Provides relevant examples	6-7
• Sketches in general terms the factors a coach should consider to prevent medical conditions occurring in children and young athletes who are under their supervision • May provide an example	4-5
• Sketches in general terms factors a coach should consider to prevent medical conditions occurring in children and young athletes who are under their supervision	2-3
• Provides some factors a coach should consider to prevent medical conditions occurring in children and young athletes who are under their supervision	1

Sample answer

Coaches should consider the following to prevent medical conditions occurring and how to respond if they occur in children and young athletes who are under their supervision:
Medical conditions including asthma, diabetes and epilepsy. The coach needs to know how to implement or treat a medical condition, the athlete has access to their medication and there is an action plan in place in the event of an emergency.
Asthma is a life-threatening medical condition in which the child or young athlete may experience difficulty in breathing caused by airways being constricted, some athletes may know what triggers their asthma which would be useful knowledge for a coach to have.

Diabetes is a medical condition which effects a person's ability to absorb glucose. In children and young athletes type 1 diabetes will be most predominant and maintaining glucose levels is most important.

Epilepsy is a medical condition which causes the athlete to lose consciousness. The coach should know what treatment is necessary if a seizure occurs.

Question 31 (b)
Justify the rehabilitation procedures used to manage specific sporting injuries.

Criteria	Marks
• Provides an argument that supports the use of rehabilitation procedures for sporting injuries • Makes evident the relationship between the rehabilitation procedure and management of sporting injuries • Provides relevant examples	11–12
• Provides reasons why rehabilitation procedures are used for sporting injuries • Provides relevant example(s)	8–10
• Provides characteristics and features of rehabilitation procedures • Provides a relevant example	5–7
• Sketches in general terms rehabilitation procedures for sports injuries	3–4
• Recognises and names rehabilitation procedures OR • Provides an example of a rehabilitation procedure	1–2

- rehabilitation procedures
  - progressive mobilisation
  - graduated exercise (stretching, conditioning, total body fitness)
  - training
  - use of heat and cold
- examine and justify rehabilitation procedures used for a range of specific injuries, eg hamstring tear, shoulder dislocation

Sample answer:

To ensure an athlete can return to play as soon as possible following a hamstring injury, a variety of rehabilitation processes should be implemented. These should include progressive mobilisation, graduated exercise (including stretching, conditioning and total body fitness), training and the use of heat and cold. When each step is correctly addressed, it will increase the likelihood of a speedy reintroduction to sport. Progressive mobilisation is necessary to enhance the range of movement available at the hamstring.

A hamstring tear causes severe damage to muscle and connective tissues ie tendons and ligaments, leading to scar tissue formation and immobilisation. Active and passive movement techniques can be introduced soon after the injury to prevent muscle inactivity. An example of an active and passive movement exercise for someone who has experienced a hamstring tear might include flexion and extension of the knee by the athlete and physiotherapist respectively. It is important that the athlete is ready to undertake this phase by ensuring the movements are slow, circulation to the area is increased beforehand and movement remains pain free. Therefore progressive mobilisation is a key stage in the initial rehabilitation process as it prevents muscle stiffness. After the injured site has been mobilised, graduated exercise is introduced in the form of stretching, conditioning and total body fitness.

Stretching is beneficial as it reduces muscle tension, increases circulation, increases deltoid muscle and tendon length and improves the range of motion at the injured site. Stretching can be in the form of PNF and static stretches at this stage, ensuring technique is correct and there is no pain. Conditioning of a shoulder injury is vital because inactivity leads to muscle atrophy. Therefore, it is imperative that strength in the muscle is regained and the muscle slowly overloaded with further resistance to initiate further strength gains. Some examples of suitable resistance exercises for someone recovering from a shoulder injury might include anterior deltoid raises with low resistance or rotator cuff exercises.

Total Body fitness is the final step in the graduated exercise process. It is essential that overall fitness is restored, not just the recuperation of the shoulder dislocation. The choice of total body fitness exercises will depend on the type and severity of the injury. In the case of a shoulder dislocation, some fitness exercises might include light resistance training through the use of elastic bands and low intensity swimming. Graduated exercise is relevant because it assists in the recovery process of the shoulder dislocation. Although an athlete may have returned to full fitness, strength and condition, they are still not fit enough to return to competition. Instead, they must undertake training to ensure speed, agility and muscle coordination are restored to full capacity. For example an AFL player who has sustained a hamstring tear may return to the lower grades before re-entering the senior team. It has been found that this will ensure physiological readiness to return to full competition.

The use of cold is vital in the initial treatment of a shoulder dislocation, while the use of heat is helpful prior to commencing the progressive mobilisation phase. Cold therapies ie cryotherapy, include the use of ice and ice baths to minimise swelling and pain at the shoulder dislocation site immediately post injury and for up to 48 hours post injury. Heat is used to increase circulation, increase tissue healing and relax the injured muscle. Heat can be applied superficially via heat packs after the first 48 hours post injury. Research shows that the use of heat and cold is a key component of the rehabilitation process of a shoulder dislocation as it assists and speeds up the healing of the injured site. It can be seen that rehabilitation procedures are vital to ensuring an athlete is at their peak when returning to play following a soft and hard tissue injury.

Question 32 (a)

Criteria	Marks
• Demonstrates a clear understanding of why considerations are needed in planning to avoid overtraining of an athlete • Provides a range of relevant examples • Provides a logical and cohesive response	8

• Provides characteristics of the considerations needed in planning to avoid overtraining of an athlete • Provides relevant examples	6-7
• Sketches in general terms the elements needed in planning to avoid overtraining of an athlete • May provide an example	4-5
• Sketches in general terms the necessary elements needed in planning to avoid overtraining	2-3
• Provides some relevant information about planning to avoid overtraining	1

Sample answer
Over training occurs when an athlete is doing too much physically and psychologically and has not had enough time to recover form pervious training sessions.
Amount and intensity of training is an important consideration when planning an athlete's training sessions. It is unusual for athletes to be undertrained and more common that athletes are overtrained with athletes doing too much too often with inadequate rest in between. When overtraining without enough adequate rest and recovery the body does not have enough time to repair from the previous training session. Coaches need to work out a balance between frequency and intensity so as not to overtrain the athlete.

Physiological considerations when training an athlete include symptoms of overtraining such as lethargy, sickness, injury, noticeable drop in performance and unwanted weight loss. Sometimes athletes can experience fatigue and tiredness but are not necessarily symptoms of over training.

Psychological considerations need to be evaluated to prevent mental fatigue such as loss of motivation, lack of enthusiasm and depression.
Coaches should make every attempt to avoid over-training their athletes and causing unwanted physiological and psychological symptoms. Monitoring of an athlete's physical and mental well-being such as ensuring they are getting enough rest, nutrition and rest between training sessions is essential to watch for indications that the athlete maybe overtrained. Before increasing an athlete's training load, it is important to consider how they are handling the current workload especially for younger or older athletes. If an athlete is showing symptoms of overtraining reduce the frequency and intensity and provide more recovery time.

Question 32 (b)

Criteria	Marks
• Demonstrates a clear understanding of the elements of a training session • Supports an argument for the use of the elements to be considered when designing a training session • Makes evident the relationship between the elements of a training session and improved performance • Provides relevant examples of the relationship between the elements of a training session and improved performance	11–12
• Demonstrates a clear understanding and draws conclusions between elements of a training session and performance • Provides relevant examples	8–10
• Provides characteristics and features of elements of a training session and/or initial planning considerations or planning a training year • Provides examples	5–7
• Sketches in general terms elements of a training session or initial planning considerations or planning a training year	3–4
• Recognises and names elements to be considered when designing a training session OR • Provides facts or information about training session planning or design	1–2

Sample Answer:

There are many elements that need to be considered when designing a training session. These elements are: health and safety considerations, providing an overview of the session to athletes with specific goals, warm-up, cool down, skill instruction, skill practice, conditioning, evaluation. These are all very important since they assist with matching training with the ability of the athletes and improving performance.

Health and safety considerations are very important since they help protect the wellbeing of athletes. Recovery from training and competition is an important health and safety consideration. Communication between athletes and coach and rehabilitation staff ensures that sessions are modified to meet the needs of the athlete, considering factors such as injuries, fatigue, and muscle soreness. For an injured athlete if the session is not modified the injury could get worse leading to the athlete being unable to play in a competition.

Providing an overview of the session helps coaches prepare the athletes psychologically for training. This assists with developing objectives and goals for the session so that the athletes have focus. For example during the in-season the coach may set the objective of improving defence for the soccer team, due to poor defence in the previous game.

A warm-up physically and mentally prepares the body for training. This is essential because it reduces the risk of injury and helps with improved performance during the training session. The cool down is also essential since it assists with recovery and removal of waste products after the training session. For example a soccer team walking three laps around the oval after training to reduce muscle soreness after a high intensity, high quality session.
Skill instruction and practice involves athletes practising skills and improving both game strategies and tactics. This is an essential part of in-season training sessions. For example

during the in-season soccer players may perform skills and drills in competition and game like situations. This is important since it improves performing skills under pressure similar to in competition.

Conditioning includes the development of fitness components necessary for success in the sport. For example a swimmer who specialises in 50m sprints will focus during the in-season on developing the alactic energy system, lactic energy systems, reaction time, power, strength. This is important to assist with the athlete peaking and being in top condition to perform at his or her best.

Lastly is evaluation. This is also important. It involves providing the coach and athletes the opportunity to provide feedback and review the training session. For example the coach may ask questions to assess the rate of perceived exertion, which can be used to modify future training sessions to prevent over training and developing future workloads.

2019 Higher School Certificate
Trial Examination
Personal Development, Health and Physical Education
Mapping Grid

Section I
Part A

Question	Marks	Content	Syllabus Outcomes
1	1	Cardiovascular disease	H1, H2
2	1	Skill acquisition	H8, H9
3	1	Emerging technology	H15
4	1	Learning environment feedback	H16, H17
5	1	Ottawa Charter	H4
6	1	Motivation	H8, H11
7	1	Health care	H15
8	1	Supplementation	H8, H11
9	1	Public healthcare	H14, H15
10	1	Energy systems	H8
11	1	Groups experiencing health inequalities	H2, H3
12	1	Performance criteria	H17
13	1	Aging population	H2, H15
14	1	Types of training	H8
15	1	Government responsibility	H5
16	1	Strength training	H8
17	1	Cancer	H1
18	1	Characteristics of the learner	H9
19	1	Social justice principles	H14
20	1	Validity and reliability of tests	H16

Section I
Part B

Question	Marks	Content	Syllabus Outcomes
21	3	Epidemiology	H2, H15
22	4	Health insurance	H16
23	5	Complementary and alternative health	H5
24	8	Identifying priority health issues	H1
25	3	Nutritional requirements	H8, H11
26	4	Recovery strategies	H8, H17
27	5	Psychological strategies	H11
28	8	Physiological adaptions	H16, H7

Section II

Question	Marks	Content	Syllabus Outcomes
29 (a)	8	Health of young people	H2, H5, H15
29 (b)	12	Skills young people, good health	H2, H6, H15
30 (a)	8	Identities of Indigenous Australians	H12, H16
30 (b)	12	Sport as a traditionally male domain	H12, H16
31 (a)	8	Children and young athletes	H8, H16
31 (b)	12	Adult and aged athletes	H8, H17
32 (a)	8	Overtraining	H8, H16, H17
32 (b)	12	Technology	H10, H17
33 a)	8	Actions that improve health	H2, H3, H14, H15
33 (b)	12	Health promotion strategy	H5, H14