



B O A R D O F S T U D I E S
NEW SOUTH WALES

2010

**HIGHER SCHOOL CERTIFICATE
EXAMINATION**

Personal Development, Health and Physical Education

General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black or blue pen
- Write your Centre Number and Student Number at the top of pages 9, 11, 13 and 15

Total marks – 100

Section I Pages 2–16

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 21–26
- Allow about 1 hour and 10 minutes for this part

Section II Pages 17–18

40 marks

- Attempt TWO questions from Questions 27–31
- Allow about 1 hour and 10 minutes for this section

Section I

Part A – 20 marks

Attempt Questions 1–20

Allow about 40 minutes for this part

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

- 1 Peripheral vascular disease is a cardiovascular disease affecting
 - (A) the arteries.
 - (B) the skeletal muscles.
 - (C) blood vessels in the limbs.
 - (D) blood vessels in the pancreas.

- 2 By researching the nature and benefits of a health product an individual is able to
 - (A) use a holistic health approach.
 - (B) make informed health consumer choices.
 - (C) access alternative health care approaches.
 - (D) access a range of complementary medicines.

- 3 How can volunteer organisations reduce the impact of an ageing population on the public health system?
 - (A) By subsidising prescription medicines
 - (B) By transporting the aged to health care services
 - (C) By assisting the aged to remain in their own homes
 - (D) By increasing the number of trained health professionals in the workforce

- 4 In recent times, there has been a decrease in cancer related deaths and an increase in new cancer cases in Australia.

These changes are most likely to be the result of

 - (A) improved detection and increased survival rates.
 - (B) improved detection and decreased skin cancer rates.
 - (C) an increase in healthy eating and physical activity habits.
 - (D) an increase in the Australian population and the influence of gender and family history.

- 5 Which of the following results of illness have indirect costs to the community?
- (A) Absenteeism, education and screening, loss of potential earnings
 - (B) Absenteeism, loss of potential earnings, retraining in the workplace
 - (C) Loss of potential earnings, pharmaceutical prescriptions, absenteeism
 - (D) Loss of potential earnings, retraining in the workplace, pharmaceutical prescriptions
- 6 An increase in the life expectancy of Australians is most likely to result from
- (A) lower morbidity rates.
 - (B) higher morbidity rates.
 - (C) lower infant mortality rates.
 - (D) higher infant mortality rates.
- 7 The criteria used to determine Australia's priority health issues are
- (A) social justice principles, potential for prevention and morbidity rates.
 - (B) priority population groups, life expectancy and social justice principles.
 - (C) cost to individual and communities, mortality rates and social justice principles.
 - (D) social justice principles, priority population groups and prevalence of condition.
- 8 What are some features of Medicare?
- (A) Bulk billing, ancillary cover
 - (B) Bulk billing, Pharmaceutical Benefits Scheme
 - (C) Free treatment in public hospitals, Pharmaceutical Benefits Scheme
 - (D) Free treatment in public hospitals, subsidised or free treatment by medical practitioners
- 9 Which of the following are factors that protect against preventable chronic disease?
- (A) Maintaining a healthy weight range, not smoking, eating healthily, having regular health checks
 - (B) Maintaining a healthy weight range, not smoking, hypertension, having regular mammograms
 - (C) Maintaining a healthy blood pressure, being male, eating healthily, maintaining a healthy weight range
 - (D) Maintaining a healthy weight range, not smoking, exercising regularly, being over the age of 40 years

- 10** Which option best explains the decrease in mortality rates in Australia over the last century?

	<i>Improved</i>	<i>Decreased</i>	<i>Access to</i>
(A)	medical technology	infectious disease	vaccination programs
(B)	medical technology	infectious disease	private health insurance
(C)	knowledge of infectious disease	chronic disease	Medicare
(D)	life expectancy	chronic disease	Medicare

- 11** What is the most effective source of fuel for replenishing energy stores after an athlete has completed a 800 metre track event?

- (A) Fat
- (B) Fibre
- (C) Protein
- (D) Carbohydrate

- 12** A coach tells his players that a poor performance in their next match may result in them being replaced in the team.

What type of motivation is this?

- (A) Positive and intrinsic
- (B) Positive and extrinsic
- (C) Negative and intrinsic
- (D) Negative and extrinsic

- 13** What does Fartlek training or ‘speed play’ involve?

- (A) Set exercises interspersed with high intensity intervals
- (B) Split intervals of rapid work and active or passive recovery
- (C) Continuous efforts interspersed with high intensity intervals
- (D) Intense continuous activity interspersed with short intervals

- 14** Which behaviour is preferred to optimise nutrition for physical activity?
- (A) Eating a nutritious, varied diet
 - (B) Eating a nutritious diet rich in protein
 - (C) Hydrating regularly and taking nutritional supplements
 - (D) Eating a varied diet that includes nutritional supplements
- 15** How would you classify the nature of the skill used by a goal keeper defending a penalty kick in soccer?
- (A) Open and self paced
 - (B) Closed and self paced
 - (C) Open and externally paced
 - (D) Closed and externally paced
- 16** The table shows the progression of a basketballer learning to do layups.

<i>Training Session</i>	<i>Attempts</i>	<i>Successful Goals</i>
1	15	3
2	15	3
3	15	12
4	15	14

At which stage of skill acquisition is the basketballer?

- (A) Learner moving towards associative
 - (B) Cognitive moving towards associative
 - (C) Cognitive moving towards autonomous
 - (D) Associative moving towards autonomous
- 17** What does hydraulic strength training involve?
- (A) Concentric muscular tension occurring at varying speeds
 - (B) Varied tension occurring throughout the full range of motion
 - (C) Constant tension that develops without a change in muscle length
 - (D) Muscular contraction occurring under a constant load throughout the full range of motion

18 What are the characteristics of fast twitch muscle fibres?

- (A) Explosive activities, fatigue slowly
- (B) Endurance activities, fatigue slowly
- (C) Explosive activities, fatigue quickly
- (D) Endurance activities, fatigue quickly

19 Which option reflects the physiological adaptations expected in an endurance swimmer's training program?

	<i>Oxygen uptake</i>	<i>Haemoglobin level</i>	<i>Resting heart rate</i>	<i>Stroke volume</i>
(A)	Increase	Increase	Decrease	Increase
(B)	Increase	Decrease	Decrease	Increase
(C)	Increase	Increase	Decrease	Decrease
(D)	Increase	Decrease	Increase	Increase

20 What should carbohydrate loading involve?

- (A) A high GI diet, followed by a 2–4 day reduction in exercise load
- (B) A 2–4 day reduction in exercise load, followed by reduction in carbohydrates
- (C) A balanced diet high in carbohydrates, followed by a 2–4 day reduction in exercise load
- (D) Carbohydrate depletion, a 2–4 day reduction in exercise load, then an increase in carbohydrates

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Personal Development, Health and Physical Education

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Centre Number

Section I (continued)

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Student Number

Part B – 40 marks

Attempt Questions 21–26

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.

Question 21 (8 marks)

- (a) Outline TWO socioeconomic determinants that contribute to health inequities experienced by Aboriginal and Torres Strait Islander peoples. **3**

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Question 21 continues on page 10

Question 21 (continued)

- (b) Describe the roles that individuals, communities and governments have in addressing health inequities experienced by Aboriginal and Torres Strait Islander peoples. **5**

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End of Question 21

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Centre Number

Section I – Part B (continued)

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Student Number

Question 22 (12 marks)

(a) Describe TWO action areas of the Ottawa Charter.

(i) 2

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(ii) 2

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Question 22 continues on page 12

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Section I – Part B (continued)

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Student Number

Question 23 (3 marks)

Outline THREE physiological adaptations in response to aerobic training.

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Question 24 (4 marks)

Assess the value of products containing creatine as supplements for improved performance.

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Question 25 (5 marks)

Describe the stages of skill acquisition that an athlete should typically pass through when developing a skill. **5**

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Centre Number grid

Centre Number

Section I – Part B (continued)

Student Number grid

Student Number

Question 26 (8 marks)

The following profiles describe two athletes and their sports.

8

Awaiting copyright

Athlete A

- Elite individual target sport athlete
• Maintains a low heart rate and controlled breathing
• Maintains intense focus and concentration
• Considers a range of environmental factors
• Spectators are kept quiet

Awaiting copyright

Athlete B

- Elite team/territorial sport athlete
• High levels of physical exertion
• Performs under pressure from opponents
• Loud spectators and game commentary
• Party-like atmosphere with music over public address system

Compare TWO psychological strategies that each of these athletes would employ to enhance motivation OR manage anxiety.

Five horizontal dotted lines for student response

Question 26 continues on page 16

Question 26 (continued)

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End of Question 26

Personal Development, Health and Physical Education

Section II

40 marks

Attempt TWO questions from Questions 27–31

Allow about 1 hour and 10 minutes for this section

Answer each question in a SEPARATE writing booklet. Extra writing booklets are available.

In 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 27 — The Health of Young People (20 marks)

- (a) (i) Outline the nature of a major health issue that has an impact on young people. **3**
- (ii) Describe some of the protective factors for this health issue. **5**
- (b) Evaluate the actions government and non-government agencies have implemented to target one health issue that impacts on young people. **12**

Question 28 — Sport and Physical Activity in Australian Society (20 marks)

- (a) (i) Why has sport traditionally been seen as a male domain? **3**
- (ii) Explain the role of gender in participation rates in sport and physical activity. **5**
- (b) Evaluate the relationship between sport and Australia's national identity. **12**

Please turn over

In 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 — Sports Medicine (20 marks)

- (a) (i) Outline how problems associated with iron deficiency and bone density can affect female participation in sport. **3**
- (ii) How does sports medicine address the medical conditions of children and young athletes? **5**
- (b) Evaluate how sports policy and the sport environment promote safe participation. **12**

Question 30 — Improving Performance (20 marks)

- (a) (i) What is ONE benefit and ONE limitation of drug testing? **2**
- (ii) Why are performance enhancing drugs considered unethical in sport? **6**
- (b) Justify factors a coach should consider in order to avoid overtraining. **12**

Question 31 — Equity and Health (20 marks)

- (a) (i) What factors contribute to health inequities in Australia? **3**
- (ii) How could government funding be used to reduce health inequities for a population? **5**
- (b) Why are some health promotion strategies more effective than others? **12**

End of paper