

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

2006

**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 and 13

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

Section II Pages 17–18

40 marks

- Attempt TWO questions from Questions 23–27
- 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.

Select the alternative A, B, C or D that best answers the question. Fill in the response oval completely.

Sample: $2 + 4 =$ (A) 2 (B) 6 (C) 8 (D) 9
A B C D

If you think you have made a mistake, put a cross through the incorrect answer and fill in the new answer.

A B C D

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word **correct** and drawing an arrow as follows.

A B C D
correct
↙

1 What is *atherosclerosis*?

- (A) Failure of a heart valve
- (B) Hardening of artery walls
- (C) Ballooning of an artery wall
- (D) Build-up of fatty tissue on artery walls

2 Which risk factor contributes most to mortality in Australia?

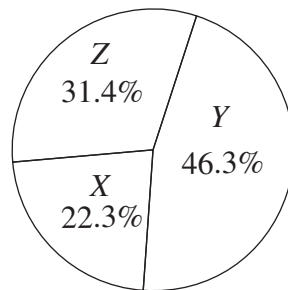
- (A) Alcohol
- (B) Smoking
- (C) High-fat diet
- (D) Physical inactivity

- 3 Which factor is used to identify priority areas for health in Australia?
- (A) Costs to individuals
 (B) Ability to recoup costs
 (C) Threats from epidemics
 (D) Patterns from overseas priorities
- 4 In the male population of Australia, which cancer has decreased in incidence over the last 15 years?
- (A) Lung
 (B) Testicular
 (C) Colorectal
 (D) Melanoma
- 5 Which initiative is an example of the new public health model for dealing with the increase in childhood obesity?
- (A) Increased child allowance payments to parents
 (B) Medical interventions for overweight children
 (C) Student-conducted survey of canteen products
 (D) Compulsory school screening for obesity levels
- 6 What are the trends in mortality for cardiovascular disease in Australia from 1992 to 2002?

	<i>Females</i>	<i>Males</i>
(A)	Decreased	Increased
(B)	Decreased	Decreased
(C)	Increased	Decreased
(D)	Increased	Increased

- 7 Which strategy is an example of creating supportive environments to assist people who experience mental health problems?
- (A) Reducing the use of alcohol and other drugs
 (B) Establishing relevant community-based mental health services and networks
 (C) Assessing information and education about the management of mental illness
 (D) Developing public policy that encourages institutional treatment for depression

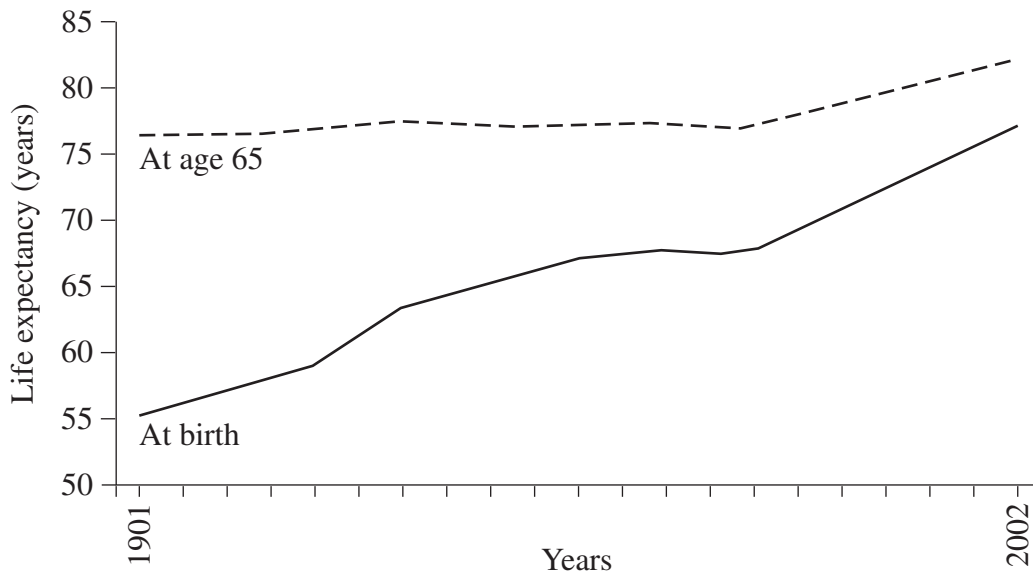
- 8 Which contributes most significantly to health inequities experienced by Aboriginal and Torres Strait Islander peoples?
- (A) Mainstream health services are not always accessible for geographic, social and cultural reasons.
 - (B) Aboriginal and Torres Strait Islander peoples choose not to be considered as part of the health care system.
 - (C) Australian governments allocate large sums of money to the health needs of Aboriginal and Torres Strait Islander peoples.
 - (D) Aboriginal and Torres Strait Islander peoples' traditional approaches to health and medicine are not covered by private health funds.
- 9 The sectors in the pie graph represent total health expenditure by Commonwealth government, state government and non-government agencies in Australia in 2001–2002.



Which initiative is funded by sector Y?

- (A) NSW Driver Reviver program
- (B) Sun Herald City to Surf fun run
- (C) National Drug Strategic Framework
- (D) Community before- and after-school care program

- 10** The graph shows trends in female life expectancy in Australia from 1901 to 2002.



Which statement best represents the data in the graph?

- (A) Upon reaching 65 years of age, females are more likely to live longer than their life expectancy measured at birth.
 - (B) Life expectancy measured at age 65 has increased at a greater rate than life expectancy measured at birth.
 - (C) Life expectancy trends are mainly due to the reduction in mortality rates among middle-aged and elderly females.
 - (D) Reduction in the cardiovascular mortality rate was responsible for the differences in life expectancy measured at birth and at age 65 in 1901.
- 11** In order to reduce his anxiety, a high-jumper practises walking through his run-up in preparation for his jump.

What is this strategy called?

- (A) Goal setting
- (B) Attentional skill
- (C) Extrinsic motivation
- (D) Social reinforcement

- 12** What does an athlete do at the associative stage of skill acquisition?
- (A) Concentrates on developing sub-routines
 - (B) Rehearses the sequencing of movement patterns
 - (C) Uses anticipation and timing accurately and consistently
 - (D) Requires demonstrations to create visual images of the skill
- 13** Why is a soccer player participating in the World Cup able to accurately kick the ball into the top corner of the goal?
- (A) Because the player is highly motivated by the crowd
 - (B) Because the player has received external feedback from the coach
 - (C) Because the player is able to recognise and respond to relevant cues
 - (D) Because the player has undertaken specific fitness training at an elite level
- 14** How would you classify the nature of the skill used when a goalkeeper defends a penalty stroke in hockey?
- (A) Closed and self-paced
 - (B) Closed and externally-paced
 - (C) Open and self-paced
 - (D) Open and externally-paced
- 15** Which alternative is an example of a valid skill-related test?
- (A) The Harvard Step Test for balance
 - (B) A standing long jump to test power
 - (C) A vertical jump to test reaction time
 - (D) A Multi-Stage Fitness Test to measure agility
- 16** What is a good example of a post-event recovery nutritional plan for an elite endurance athlete?
- (A) A high-protein snack consumed one hour after the event
 - (B) A meal consumed within 15 minutes of completing the event
 - (C) A high-protein and carbohydrate meal consumed 2 hours after the event
 - (D) A complex carbohydrate snack consumed within 20 minutes of completing the event

17 Which is an example of specificity in strength training?

	<i>Athlete</i>	<i>Reps</i>	<i>Sets</i>	<i>Resistance</i>	<i>Recovery</i>
(A)	800-metre swimmer	2–10	2–3	light	2–4 minutes
(B)	Spring-board diver	15+	3–5	light	30–90 seconds
(C)	Long-jumper	3–6	3–5	heavy	2–4 minutes
(D)	Weight-lifter	10–15	2–3	heavy	30–90 seconds

Use the information in the table below to answer Questions 18 and 19.

Characteristics of three different energy systems

<i>System</i>	<i>X</i>	<i>Y</i>	<i>Z</i>
Fuel	Carbohydrate, fat, protein	Carbohydrate	Creatine, phosphate
ATP production	Unlimited	Limited	Very limited
Oxygen required	Yes	No	No

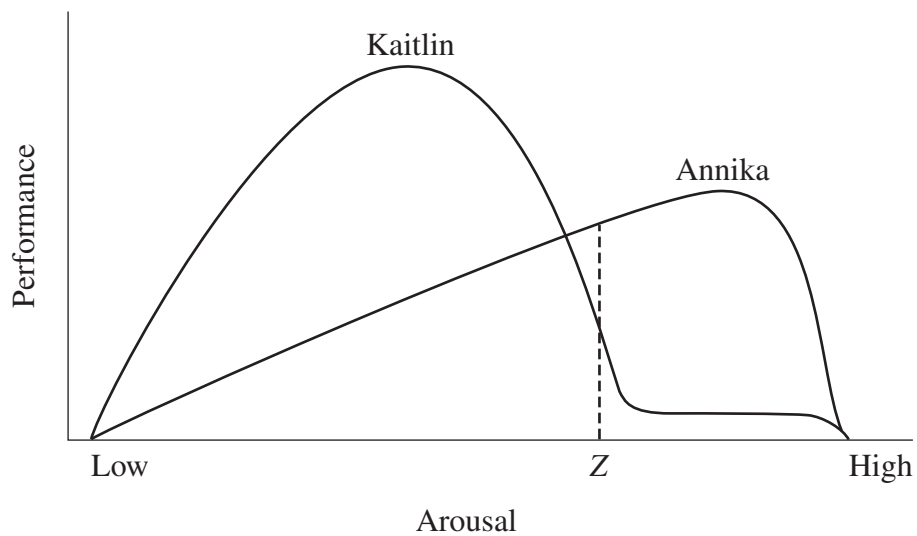
18 Which athletes would use system *X* as their dominant energy system?

- (A) High-jumpers
- (B) 400-metre runners
- (C) 100-metre sprinters
- (D) 1500-metre swimmers

19 How long would it take for energy system *Y* to recover from exhaustion following exercise?

- (A) 1 week
- (B) 1 to 2 days
- (C) 2 to 5 minutes
- (D) 30 minutes to 2 hours

- 20 The graph represents levels of arousal for two athletes (Kaitlin and Annika) for the same activity.



Which statement best describes the performance of Kaitlin and Annika?

- (A) Kaitlin is performing better than Annika at Z because Kaitlin is over-aroused.
- (B) Annika is performing better than Kaitlin at Z because Annika is over-aroused.
- (C) Annika is a better performer than Kaitlin, but at Z is performing worse due to over-arousal.
- (D) Kaitlin is a better performer than Annika, but at Z is performing worse due to over-arousal.

Question 21 (continued)

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End of Question 21

Personal Development, Health and Physical Education

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Centre Number

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Student Number

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 answer with relevant examples
- present ideas in a clear and logical way

Marks

Question 22 — Factors Affecting Performance (20 marks)

(a) Complete the table by identifying the causes of fatigue for the energy systems.

3

<i>Alactacid system ATP/PC</i>	<i>Lactic acid system</i>	<i>Aerobic system</i>

Question 22 continues on page 14

Question 22 (continued)

- (b) Explain how nutritional supplementation affects the performance of athletes. **5**

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Question 22 continues on page 15

Question 22 (continued)

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End of Question 22

Personal Development, Health and Physical Education

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. Extra writing booklets are available.

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 answer with relevant examples
 - present ideas in a clear and logical way
-

	Marks
Question 23 — The Health of Young People (20 marks)	
(a) Clarify how social action can support young people in Australia to attain better health.	5
(b) Investigate how managing developmental aspects impacts on the health of young people in Australia.	15
Question 24 — Sport and Physical Activity in Australian Society (20 marks)	
(a) Clarify how the media in Australia contribute to understandings about the relationship between sexuality and sport.	5
(b) Investigate the consequences of the emergence of sport as a commodity in Australia.	15

Please turn over

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 answer with relevant examples
 - present ideas in a clear and logical way
-

	Marks
Question 25 — Sports Medicine (20 marks)	
(a) Clarify how the nature and extent of injuries are determined.	5
(b) Investigate the management of thermoregulation as a preventative action to enhance the wellbeing of athletes.	15
Question 26 — Improving Performance (20 marks)	
(a) Clarify how flexibility training is used to improve performance.	5
(b) Investigate the coaching considerations when establishing training programs to improve performance.	15
Question 27 — Equity and Health (20 marks)	
(a) Clarify how social risk factors contribute to health inequities in Australia.	5
(b) Investigate the characteristics that contribute to the effectiveness of health strategies in Australia.	15

End of paper