

HIGHER SCHOOL CERTIFICATE EXAMINATION

1998

**PERSONAL
DEVELOPMENT,
HEALTH, AND PHYSICAL
EDUCATION**

2 UNIT

*Time allowed—Three hours
(Plus 5 minutes reading time)*

DIRECTIONS TO CANDIDATES

Section I (20 marks)

- Attempt ALL questions.
- Complete your answers in blue or black pen, or in pencil on the Answer Sheet provided.
- Each question is worth 1 mark.

Section II (60 marks)

- Attempt ALL questions.
- Answer the questions in the spaces provided in this paper.
- Each question is worth 15 marks.
- Write your Student Number and Centre Number in the spaces provided on the first page of each question.

Section III (20 marks)

- Attempt ONE question.
- Answer the question in a SEPARATE Writing Booklet.

SECTION I

(20 Marks)

Attempt ALL questions.

Each question is worth 1 mark.

Complete your answers in blue or black pen, or in pencil on the Answer Sheet provided.

Select the alternative A, B, C, or D that best answers the question.

1. Which of the following strategies is most effective in preventing breast cancer mortality?
 - (A) Managing stress and increasing physical activity.
 - (B) Modifying diet and modifying drug use.
 - (C) Reducing exposure to passive smoking and to other chemicals.
 - (D) Self-monitoring and regular examinations.

2. The frequency and severity of asthma attacks are best reduced by
 - (A) adopting an asthma management plan.
 - (B) avoiding regular vigorous physical activity.
 - (C) developing strategies to reduce allergens.
 - (D) using medication on a regular basis.

3. The group most at risk of suicide mortality is
 - (A) females in rural areas.
 - (B) females in urban areas.
 - (C) males in rural areas.
 - (D) males in urban areas.

4. The strategy that has had the greatest influence on current trends of HIV infection in Australia is
 - (A) drug combination therapy to slow the progress of the virus.
 - (B) health promotion for specific populations.
 - (C) legislation requiring people with HIV to tell their partners.
 - (D) media campaigns for the entire population.

5. As the first step in an investigation, a researcher looks at a range of statistics that describe the incidence of disease in Australia. From this information alone, the researcher can determine
- (A) causes and treatment of diseases.
 - (B) frequency of related risk factors.
 - (C) nature and distribution of diseases.
 - (D) the specific populations at risk.
6. The area of health expenditure that receives the least allocation of government resources is
- (A) administration and research.
 - (B) health promotion.
 - (C) pharmaceuticals.
 - (D) private hospitals.
7. Changes in the health status of Australians since 1900 have been most influenced by
- (A) advances in public health strategies.
 - (B) health promotion initiatives.
 - (C) improvements in life expectancy.
 - (D) the introduction of health insurance.
8. In comparison to the general population, people from areas of high unemployment have
- (A) greater access to community health services.
 - (B) higher morbidity and mortality rates.
 - (C) lower levels of domestic violence.
 - (D) lower levels of hospital admissions.
9. A health promotion initiative on immunisation for whooping cough would best reach the target audience through
- (A) education programs for schoolchildren.
 - (B) leaflets available through general practitioners.
 - (C) letter-box drops to houses in new suburbs.
 - (D) media campaigns aimed at parents of young children.

10. An indicator of the reduction of morbidity in children due to poisoning would be
- (A) increased calls to the Poisons Information Centre.
 - (B) increased spending on research into childproof packaging for medications.
 - (C) reduced hospital admissions due to poisoning.
 - (D) the installation of childproof medicine cupboards in all dwellings.
11. The body in motion converts
- (A) chemical energy to mechanical energy.
 - (B) kinetic energy to potential energy.
 - (C) mechanical energy to chemical energy.
 - (D) potential energy to kinetic energy.
12. An 18-year-old student recently completed a series of tests to measure specific aspects of fitness. The results are recorded in the following table.

	OBJECTIVE RESULTS		SUBJECTIVE RESULTS	
<i>Test</i>	<i>Intensity % maximum heart rate</i>	<i>Duration of exercise</i>	<i>Personal comments on performance</i>	<i>Observer's comments on performance</i>
Softball pitch	30%	2 seconds	'My arm hurts'	'Poor accuracy'
100-metre swim	85%	1 m 10 s	'I was happy with my start'	'Excellent swimming style'
400-metre run	90%	58 seconds	'I feel sick'	'Excellent running style'
40-kilometre cycle	75%	1 h 45 m	'I'm exhausted'	'Poor pedalling technique'

Which statement is correct?

- (A) The softball pitch was poor because of a high arousal level.
- (B) During the 100-metre swim, the ATP-PC energy system was dominant.
- (C) During the 400-metre run, the athlete reached the anaerobic threshold.
- (D) The 40-kilometre cycle indicates an autonomous stage of skill acquisition.

13. A golfer hits the ball and is told it travels well past its target. The feedback the golfer receives is
- (A) extrinsic and concurrent.
 - (B) extrinsic and delayed.
 - (C) intrinsic and concurrent.
 - (D) intrinsic and delayed.
14. Which statement about female athletes is most correct?
- (A) Women generally have fewer red twitch fibres, making them unsuitable for power events.
 - (B) Women demonstrate a lack of strength, due to high levels of oestrogen.
 - (C) Women are less prone to heat stress, due to higher levels of body fat.
 - (D) Women endurance athletes may need to supplement their calcium intake.
15. Three dance groups received the following forms of appraisal.

- Group 1 watched a video replay of a rehearsal.
- Group 2 received a detailed analysis from its choreographer.
- Group 3 was awarded marks by a qualified judge.

Which of the following statements is true?

- (A) Group 1 received subjective appraisal.
 - (B) Groups 1 and 2 received objective appraisal.
 - (C) Group 3 received knowledge of results.
 - (D) All groups received knowledge of performance.
16. Which types of practice would best suit a swimmer in the cognitive stage of development?
- (A) Distributed, emphasising speed.
 - (B) Distributed, emphasising technique.
 - (C) Massed, emphasising speed.
 - (D) Massed, emphasising technique.

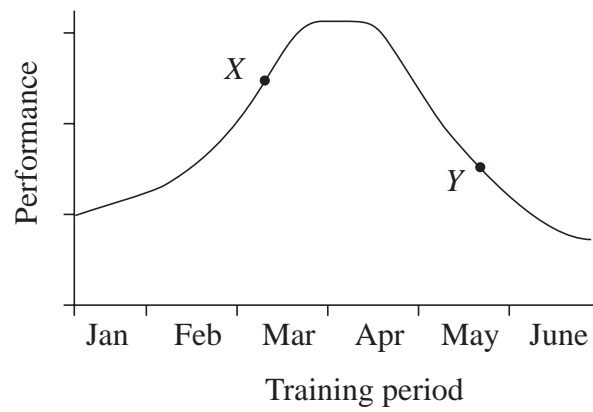
17. Alcohol consumption can produce a diuretic effect on people playing sport. This means that alcohol
- (A) acts as a depressant, increasing fluid retention.
 - (B) acts as a stimulant, increasing fluid retention.
 - (C) decreases haemoglobin levels, improving hydration.
 - (D) changes fluid balance, increasing the risk of dehydration.
18. An endurance athlete maintains effort for three hours. At this stage, the dominant fuel being metabolised is
- (A) carbohydrates.
 - (B) fat.
 - (C) glycogen.
 - (D) protein.
19. The following table shows two training programs.

<i>Program</i>	<i>Time</i>	<i>Frequency</i>	<i>Intensity</i>	<i>Type</i>
<i>X</i>	20 minutes	3 times per week	50% maximum heart rate	Walking
<i>Y</i>	20 minutes	5 times per week	75% maximum heart rate	Walking and swimming

As a person progresses from program *X* to program *Y*, the

- (A) time has been maintained to improve aerobic performance.
- (B) frequency has remained constant to improve anaerobic performance.
- (C) intensity has increased to improve aerobic performance.
- (D) type of exercise has been altered to improve anaerobic performance.

20. The following graph illustrates an athlete's performance.



Which principles of training are represented at points X and Y respectively?

- (A) Overload and reversibility.
- (B) Overload and specificity.
- (C) Reversibility and overload.
- (D) Specificity and overload.

Please do not write on this page

(b) By considering the current health status of Australians, identify THREE priority areas for government action. Give reasons for selecting each as a priority area.

10

[illegible]

[illegible]

Please do not write on this page

- (b) There is a range of health services and information available to the individual. **5**

What factors would you consider when deciding on the suitability of health services and information?

This image shows a full page of a handwriting practice worksheet. It consists of multiple rows of horizontal dashed lines spaced evenly down the page, providing a guide for letter height and placement. The background is plain white, and there are no margins or additional markings.

- (c) Identify TWO principles from the Ottawa Charter for health promotion and show how they apply to the management of ONE global health issue.

5

Please do not write on this page

(b) Discuss the relationship of EACH of the following to endurance performance:

10

- types of training;
- diet and performance;
- ergogenic aids.

[illegible]

QUESTION 23. (Continued)

Marks

This image shows a full page of a document template. It consists of approximately 28 evenly spaced horizontal dotted lines across the entire width of the page, providing a guide for handwriting or typing. There are no margins, text, or other markings present.

Please do not write on this page

QUESTION 24. (Continued)

Marks

[illegible]

- (b) You have been asked to observe a fitness session to assess the safety of the activities.

- 4

This image shows a full page of a worksheet designed for handwriting practice. It features ten sets of horizontal dashed lines spaced evenly down the page, providing a guide for letter height and placement. The background is plain white, and there are no other markings or text present.

(ii) Select TWO contra-indicated exercises and describe the dangers that may result.

4

[illegible]

Please do not write on this page

1998
HIGHER SCHOOL CERTIFICATE EXAMINATION
PERSONAL DEVELOPMENT, HEALTH, AND
PHYSICAL EDUCATION
2 UNIT

SECTION III

Marks

(20 Marks)

Attempt ONE question.

Answer the question in a SEPARATE Writing Booklet.

Each question is worth 20 marks.

QUESTION 25. Community Health Issues

- | | | |
|-----|--|----------|
| (a) | Interviews are a commonly used fieldwork technique. Outline the issues to be considered when designing and conducting an interview. | 5 |
| (b) | Examine the relationship between socio-economic status and the incidence of health risk factors in a specific region or community that you have studied. | 7 |
| (c) | Discuss how the provision of health services may address the needs of the aged and people with disabilities. | 8 |

QUESTION 26. Sociology of Games and Sport

- | | | |
|-----|---|-----------|
| (a) | The State government is asking for public comment on how it will use funds for sport and recreation. Prepare a response to the government that: | 10 |
| | <p>(i) identifies priority areas for funding;</p> <p>(ii) outlines the potential benefits of each priority area for the whole community.</p> | |

- | | | |
|-----|---|-----------|
| (b) | Professional sport really isn't sport at all. | 10 |
|-----|---|-----------|

Discuss this statement in relation to how economics influences the nature of sport.

QUESTION 27. Two Social Health Issues—Drug Use and HIV/AIDS

- | | | |
|-----|---|----------|
| (a) | The government has considered a proposal to implement HIV screening for all adults. Discuss the community implications of this proposal. | 7 |
| (b) | People with HIV will contract other serious, related conditions in the final stage of infection. Outline the nature of these AIDS-related conditions. | 5 |
| (c) | Evaluate the effectiveness of abstinence as an alternative to drug use. | 8 |

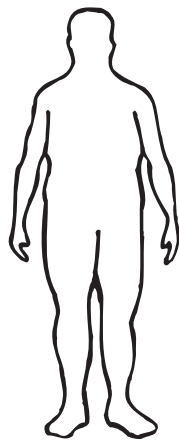
QUESTION 28. Human Movement Analysis**Marks**

Attempt EITHER Part A OR Part B.

EITHER

Part A. Biomechanics of Human Movement

- | | | |
|-----|---|----------|
| (a) | Identify the types of forces involved in a tennis serve and explain how they can be used to maximise performance. | 8 |
| (b) | Explain how imparting spin to a ball may affect its flight path. | 5 |
| (c) | Discuss how the principles of fluid mechanics will affect the following competitors in a swimming race. | 7 |



COMPETITOR A



COMPETITOR B

OR

Part B. Applied Anatomy, Exercise Physiology, Principles of Training, Fitness-testing Protocols

- | | | |
|-----|--|-----------|
| (a) | (i) Identify how the pectoral muscles assist in a range of joint actions. | 6 |
| | (ii) Describe ONE strengthening exercise for EACH joint action identified above in part (i). | |
| (b) | Describe the factors that contribute to the biomechanical efficiency of joint action. | 4 |
| (c) | Discuss the physiological differences between a trained and an untrained individual. | 10 |

QUESTION 29. The Art and Science of Coaching**Marks**

- (a) As a coach of a team, you are required to cater for a range of individual abilities. Describe how you would ensure that all players progress through the stages of skill acquisition. **15**
- (b) As a coach, describe how you would manage the issue of 'coping with winning and losing'. In your answer, refer to the shared responsibilities of coaches, parents and athletes. **5**

End of paper

BLANK PAGE