



HIGHER SCHOOL CERTIFICATE EXAMINATION

1996

**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.
- Mark your answers 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

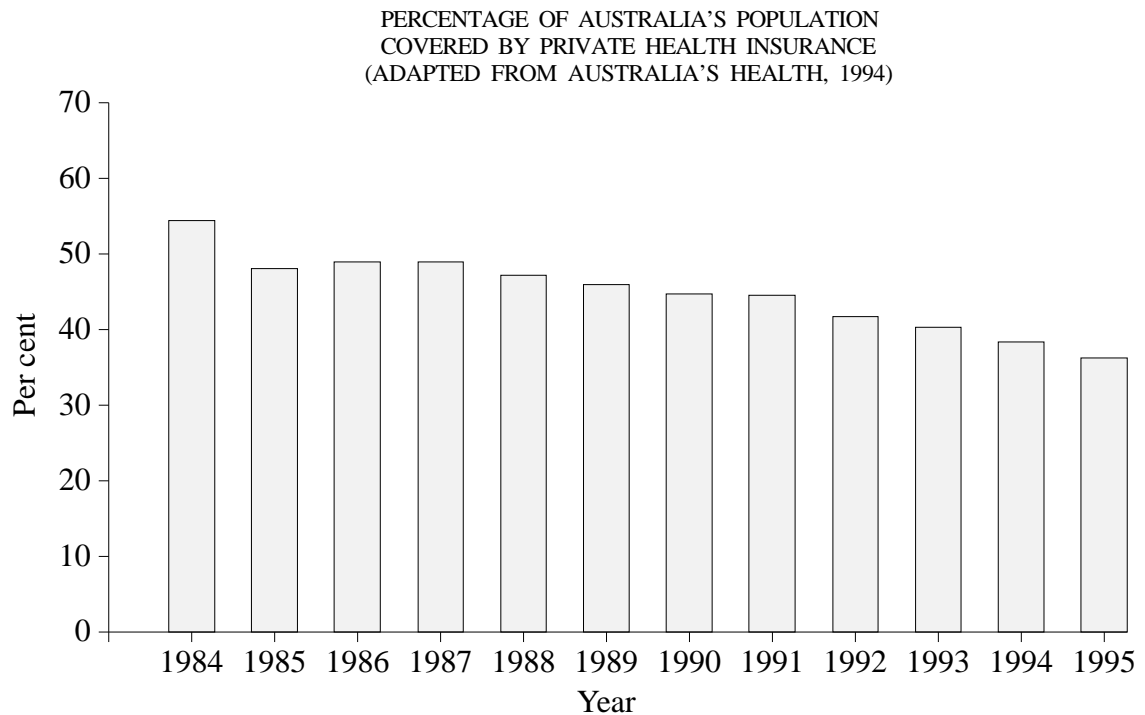
(20 Marks)

Attempt ALL questions.

Each question is worth 1 mark.

Mark your answers in pencil on the Answer Sheet provided.

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

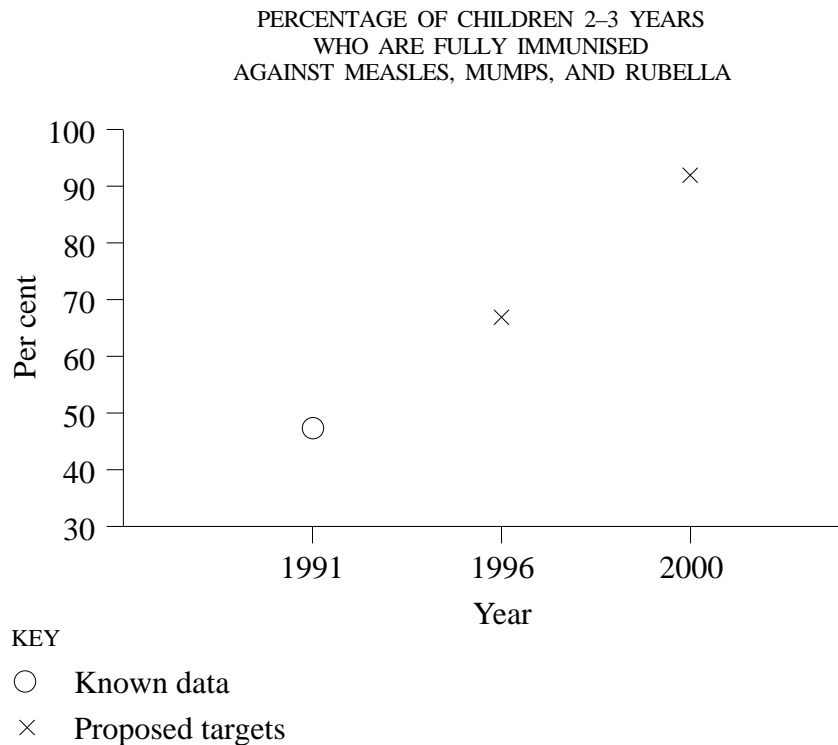
1 . Study the figure below.

Commonwealth of Australia copyright, reproduced by permission.

If this trend continues,

- (A) hospital costs will increase.
- (B) doctors will be forced to increase fees.
- (C) government health care costs will increase.
- (D) there will be longer waiting lists in private hospitals.

2. Study the figure below.



*Goals and Targets for Australia's Health
in the Year 2000 and Beyond, 1993*
Commonwealth of Australia, reproduced by permission.

The major purpose for establishing the above targets is to

- (A) reduce the incidence of communicable disease.
 - (B) establish specific programs on a national basis to increase immunisation.
 - (C) monitor the effectiveness of future immunisation programs.
 - (D) improve the health status of young children.
3. Which of the following statements relating to blood alcohol concentration (BAC) is correct?
- (A) A high BAC acts as a stimulant and causes aggressive behaviour.
 - (B) A high BAC acts as a depressant on brain centres that control inhibition.
 - (C) A high BAC decreases reaction time and causes drivers to have tunnel vision.
 - (D) The BAC limit is lower for young drivers because they are more affected by alcohol.

4. A local council used State Government funding to establish a breast cancer clinic offering free mammograms to women aged over 40. The clinic used the local media to raise awareness about the risk factors of breast cancer. A counselling service was also provided for women who received positive mammogram results. The State Cancer Council provided assistance with these initiatives.

This health promotion could best be described as

- (A) an intersectoral approach.
 - (B) a focus and settings approach.
 - (C) a secondary prevention method.
 - (D) a combination of secondary and tertiary prevention methods.
5. The Better Health Commission identified five priority areas for health promotion. These included
- (A) cancer prevention and improved nutrition.
 - (B) adolescent mental health and injury prevention.
 - (C) type II diabetes and women's health.
 - (D) cardiovascular disease and improved health for the elderly.
6. Reduction of the incidence of sexually transmitted diseases (STDs) in Australia can best be achieved through
- (A) increased community awareness and health promotion.
 - (B) government legislation and establishment of STD clinics.
 - (C) research into methods of transmission and greater availability of condoms.
 - (D) increased levels of education and individual behaviour changes.
7. A doctor offering bulk billing requires a patient to
- (A) pay in cash and claim a refund from Medicare.
 - (B) claim the cost of the service from Medicare and then pay the doctor.
 - (C) pay 15% only and the doctor will claim the remaining 85% from Medicare.
 - (D) pay nothing, as the doctor will claim the cost of the service from Medicare.
8. Type I diabetes differs from Type II diabetes in that Type I diabetes
- (A) has an onset later in life.
 - (B) requires lifelong insulin administration.
 - (C) is caused by lifestyle factors.
 - (D) affects a greater number of people.

9. Building healthy public policy is an important strategy for health promotion. An example of this strategy is the
- (A) promotion of stress management programs in the workplace.
 - (B) involvement of community groups in the design and management of recreational facilities.
 - (C) establishment of legislation prohibiting smoking in public places.
 - (D) provision of ramps in a shopping centre to improve access for disabled people.
10. Coronary heart disease can be best defined as
- (A) restricted blood supply to cardiac muscle, probably due to atherosclerosis.
 - (B) arteriosclerosis of blood vessels in the extremities, causing hypertension.
 - (C) high systolic blood pressure, causing excess strain on the heart.
 - (D) a congenital defect causing abnormal heart function.
11. The advantage of circuit training over other types of training is that
- (A) a wider variety of fitness components can be developed.
 - (B) it is better in developing the anaerobic energy system.
 - (C) it is the best method for developing muscular strength.
 - (D) the need for equipment is minimised.
12. A young sportswoman is in a dilemma about whether to continue in her sport. She is not sure that all her training is really important or worth while. None of her friends trains or plays in the same team. She feels that there are no tangible rewards when success is achieved. She requires additional
- (A) intrinsic motivation.
 - (B) reinforcement.
 - (C) extrinsic motivation.
 - (D) mental rehearsal.
13. A basketball player is finding difficulty dribbling the ball in the game situation. Although he has been practising well on his own for quite some time, his skill level is low when confronted with opposition. His dribbling skill level could best be represented by a
- (A) negatively accelerating curve in the cognitive stage of skill acquisition.
 - (B) negatively accelerating curve in the associative stage of skill acquisition.
 - (C) plateau curve in the cognitive stage of skill acquisition.
 - (D) plateau curve in the associative stage of skill acquisition.

14. Which of the following would be the best example of *specificity* in a training program?

- (A) A cyclist performing isometric exercises for the quadriceps muscle group.
- (B) An endurance swimmer doing triathlons to further develop fitness.
- (C) A shot putter using eccentric exercises for the triceps muscle.
- (D) A cross-country runner using fartlek principles in running training.

15. A marathon runner had completed 37 kilometres of the 42-kilometre course in two hours and then she started to become dizzy and disoriented.

Despite fluid intake at all drink stops, her core body temperature rose to 40°Celsius and she was unable to complete the race.

The most probable reason for this was

- (A) a failure to undergo a carbohydrate loading regime prior to the event.
- (B) the inability of her body to absorb water at the same rate as it was lost.
- (C) that the glucose content in the fluid at the drink stops was too low.
- (D) a failure to acclimatise to the environment before the event.

16. The most appropriate sequence of warm-up activities for a basketball player is

- (A) minor game, skills practice, resistance training.
- (B) stretching exercises, jogging, sprints.
- (C) jogging, stretching exercises, skills practice.
- (D) resistance training, skills practice, sprints.

17. A jockey uses a diuretic prior to a race meeting. The jockey is most likely to experience

- (A) increased endurance capacity.
- (B) delayed onset of fatigue.
- (C) decreased heart rate and lowered blood pressure.
- (D) increased urinary output.

18. A physical activity that depends primarily on the lactic acid energy system will be

- (A) of short duration and will use only carbohydrate as a fuel.
- (B) continuous, of long duration, and will use only carbohydrate as a fuel.
- (C) of short duration and may utilise fat as a fuel.
- (D) continued for no more than 20 seconds and will use only high-energy phosphates as fuel.

- 19.** A skilled dancer is most likely to receive intrinsic feedback from
- (A) applause during the performance.
 - (B) concurrent peer appraisal.
 - (C) kinaesthetic sense.
 - (D) temporal patterning.
- 20.** The consumption of alcohol will most likely influence performance in endurance activities because of its effect on
- (A) temperature regulation.
 - (B) muscular contraction.
 - (C) movement time.
 - (D) heart rate.

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- (b) Death by suicide is a significant health issue in Australia. 9
- (i) Discuss the factors that have contributed to the incidence of suicide.

[illegible]

QUESTION 21. (Continued)

Marks

- (ii) Describe management strategies that could be employed to assist in reducing the incidence of suicide in Australia.

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Question 21 continues on page 12

QUESTION 21. (Continued)

Marks

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- (b) Design a health promotion initiative to reduce the incidence of CVD in Australia. 8
- Outline your initiative, giving reasons for the strategies that you would include.

[illegible]

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CENTRE NUMBER

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Marks

15

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EXAMINER'S USE ONLY

STUDENT NUMBER

**1996
HIGHER SCHOOL CERTIFICATE EXAMINATION
PERSONAL DEVELOPMENT, HEALTH, AND
PHYSICAL EDUCATION
2 UNIT—SECTION II**

CENTRE NUMBER

QUESTION 24. Movement Skill and Performance

Marks

- (a) 'Pre-screening' is essential prior to participation in a fitness training program. **3**
Explain the benefits of pre-screening.

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QUESTION 24. (Continued)

Marks

(b) Compare the effectiveness of different types of flexibility training.

4

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QUESTION 24. (Continued)

Marks

- (c) Discuss the importance of intrinsic and extrinsic motivation at each stage of skill acquisition. **4**

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QUESTION 24. (Continued)

Marks

- (d) Identify and discuss factors that need to be considered when developing tests that measure physical skill and performance. **4**

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**1996
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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. First Aid and Sports Injuries

- | | |
|--|----------|
| (a) Describe how the key principles of taping and bandaging would be applied in the prevention and treatment of an inversion ankle injury. | 6 |
| (b) Identify the major components of sports drinks, and describe how each component may affect sports performance. | 4 |
| (c) Describe the steps you would take in the immediate management of a person experiencing: | 6 |
| (i) an epileptic seizure; | |
| (ii) a diabetic hypoglycemic condition; | |
| (iii) a diabetic hyperglycemic condition. | |
| (d) Compare the administration of CPR and EAR to a child with the administration of CPR and EAR to an adult. | 4 |

QUESTION 26. Community Health Issues

- | | |
|---|-----------|
| (a) You are concerned about the increasing incidence of eating disorders among young people in your local community. In order to convince health authorities that action is required, you plan to present them with a detailed report on the extent of the problem. | 15 |
| (i) Describe the field techniques that you would use to gather relevant data. | |
| (ii) Describe the approach that you would take in preparing this report. | |
| (b) Discuss the factors contributing to inequalities in health status within a specific community or region. | 5 |

QUESTION 27. Sociology of Games and Sport	Marks
(a) Describe how sex-role socialisation has influenced the nature of women's sport. In your answer refer to:	10
(i) patterns of participation of women in sport;	
(ii) the reporting of women's sport in the media.	
(b) Discuss the advantages and disadvantages associated with the sponsorship of sport.	10

QUESTION 28. Two Social Health Issues—Drug Use and HIV/AIDS

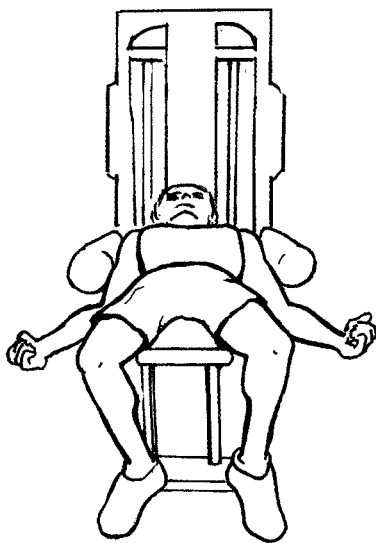
(a) Discuss the nature of the human immunodeficiency virus (HIV) and the resultant symptoms at each stage of infection.	4
(b) Australia's incidence of HIV infection is low when compared to many other parts of the world. Discuss how strategies adopted in Australia have helped to contain the spread of HIV infection.	8
(c) Discuss the role of governments and communities in reducing the harm associated with drug use.	8

QUESTION 29. Human Movement Analysis**Marks**Attempt *EITHER* Part A *OR* Part B.*EITHER***Part A. Biomechanics of Human Movement**

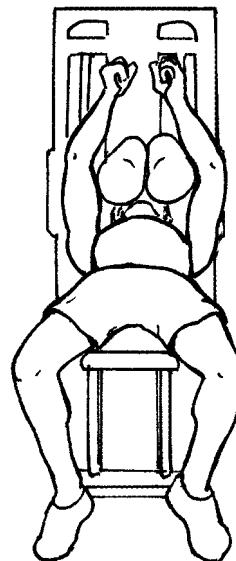
- (a) Explain how biomechanical principles apply to successful performance in the high jump. **10**
- (b) Use biomechanical principles as applied to projectiles to explain how far a javelin will travel through the air. **5**
- (c) Discuss the implications of Newton's first law for the design of softball bats of varying dimensions. **5**

*OR***Part B. Applied Anatomy, Exercise Physiology, Principles of Training, Fitness-Testing Protocols**

- (a) Study the figure below. **3**



POSITION A



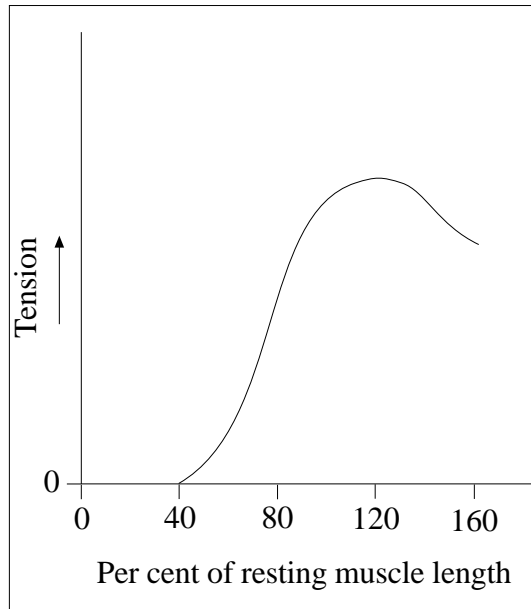
POSITION B

- (i) Identify the major muscle used in the movement from Position A to Position B.
- (ii) Identify the origin and insertion of this muscle.
- (iii) What is the function of the deltoid muscle in this movement?

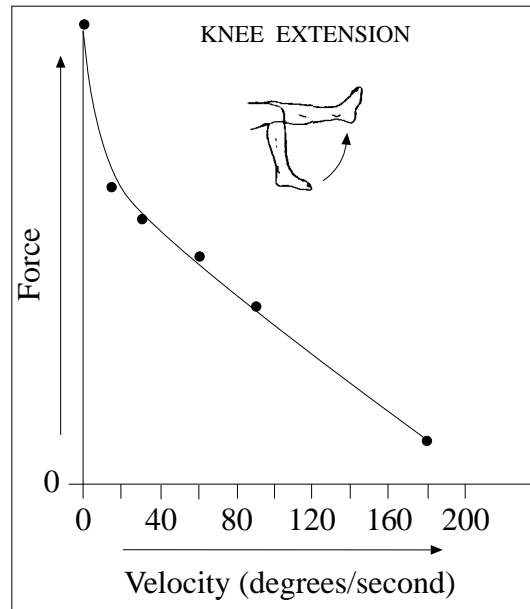
QUESTION 29. (Continued)

Marks

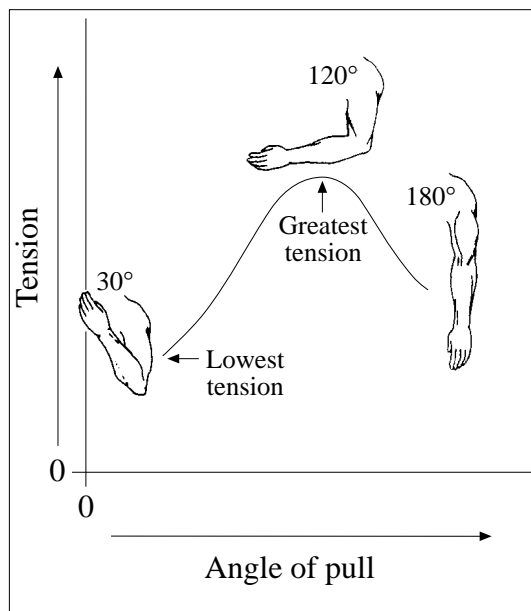
- (b) Outline the reasons for fatigue in activities performed at maximal intensity for about one minute. 5
- (c) Study the graphs below. 4



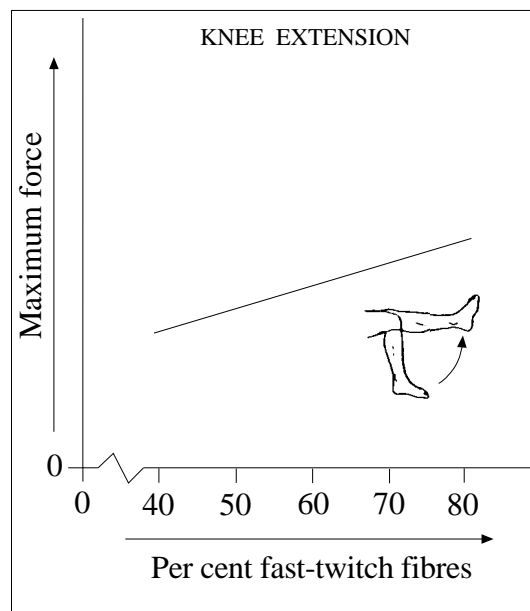
(I)



(II)



(III)



(IV)

Describe the relationship between muscular strength and the FOUR determinants of muscular strength presented above.

QUESTION 29. (Continued)**Marks**

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|-----|--|----------|
| (d) | Describe the relationship between heart rate and workload. Use an example to illustrate how this relationship is used in tests that measure cardiorespiratory endurance. | 5 |
| (e) | Identify an overload technique used in resistance training. Describe the steps involved in this technique. | 3 |

QUESTION 30. The Art and Science of Coaching

- | | | |
|-----|--|-----------|
| (a) | Discuss the importance of the coach's communication, demonstration, and observation techniques in the development of physical skill. | 6 |
| (b) | Describe how you, as a coach, would establish an appropriate balance between the development of skill and the development of physical fitness for a group of ten-year-old children in a team sport. | 4 |
| (c) | Individuals within a sports team may have different needs and levels of experience. Explain how the coach can use various strategies to foster the development and potential of all individuals within a team. | 10 |

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