

BOARD OF STUDIES
NEW SOUTH WALES

2001 HSC Specimen Paper

**Personal Development,
Health and
Physical Education**

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Personal Development, Health and Physical Education

Introduction

This booklet contains the specimen examination paper for the 2001 Higher School Certificate examination in Personal Development, Health and Physical Education. A mapping grid is also included, showing how each question in the examination relates to the syllabus outcomes and content, and to the performance bands.

The specimen paper shows the format of the New HSC examination. It has been printed on A4 paper and side-stapled to make it convenient for use in schools. Actual examination papers will be produced as A4 booklets. All New HSC papers will be printed on white paper.

The 2001 HSC specimen papers have been produced in accordance with the Board's *Principles for Setting HSC Examinations in a Standards-Referenced Framework*, published in Board Bulletin Volume 8 Number 9 (Nov/Dec 99). Questions are closely related to the outcomes of the course, and the paper as a whole is structured to allow for appropriate differentiation of student performance at all levels on the performance scale.

The papers have been designed so that students have a clear understanding of what they are required to do in each question and in working through the paper. Instructions have been standardised, and the demands of the questions have been made explicit. Key words in questions, such as 'discuss', 'analyse', and 'explain', have been used consistently in accordance with the glossary published in the Board's *Assessment Support Document*.

This specimen paper is an example of the type of examination that could be prepared within the examination specifications in the Personal Development, Health and Physical Education syllabus. Examinations will be based on the syllabus, and will test a representative sample of syllabus outcomes. Therefore, the range and balance of outcomes tested in HSC examinations in 2001 and subsequent years may differ from those addressed in the specimen paper.

The mapping grid is an important feature of the development of the examination. It aids in ensuring that the examination as a whole samples a range of content and outcomes, and allows all students the opportunity to demonstrate their level of achievement. Where courses have components in the examination other than written papers, the grid indicates the wider range of outcomes that are assessed by including these other components.

There are a number of points to note in considering the Personal Development, Health and Physical Education specimen paper:

- In Section I Part B and in Section II (the option questions), the number of question parts and the marks allocated to each part may vary from year to year.

- In Section II the questions all have a similar structure. In subsequent papers this structure may vary, but will remain similar across the different options so that the options will have comparable difficulty.

Personal Development, Health and Physical Education

HSC Specimen Examination Mapping Grid

For each item in the examination, the grid shows the marks allocated, the syllabus content and syllabus outcomes it relates to, and the bands on the performance scale it is targeting. The range of bands shown indicates the performance candidates may be able to demonstrate in their responses. That is, if an item is shown as targeting Bands 3 – 5, it indicates that candidates who demonstrate performance equivalent to the Band 3 descriptions should be able to score some marks on the item, while those who perform at Band 5 or above could reasonably be expected to gain high marks. In the case of one-mark items, candidates who demonstrate performance at or above the bands shown generally could be expected to answer the item correctly.

Question	Marks	Content	Syllabus outcomes	Targeted performance bands
1	1	Priority areas for action (Core 1)	H1, H2	3 – 4
2	1	Characteristics of the new public health approach	H4	2 – 3
3	1	Priority areas for action	H1	2 – 3
4	1	Health status of Australians	H2	2 – 3
5	1	Health status of Australians	H1, H2, H3	3 – 4
6	1	Creating supportive environments	H4, H5	4 – 5
7	1	Measuring health status – priority areas	H2	3 – 4
8	1	Nature of health care in Australia	H3, H5, H15	4 – 5
9	1	Approaches to health promotion	H3, H4, H15	5 – 6
10	1	Approaches to health promotion – priority areas	H1, H2, H15, H16	5 – 6
11	1	Nutrition and performance (Core 2)	H8, H11	2 – 3
12	1	Learning environment – nature of skill	H9	2 – 3
13	1	Motivation	H11	2 – 3
14	1	Pre-screening	H8	3 – 4
15	1	Energy systems	H7	3 – 4
16	1	Nutrition and performance – hydration	H7, H17	4 – 5
17	1	Mental rehearsal	H8, H9	4 – 5
18	1	Optimum arousal	H8, H9, H11, H16	5 – 6
19	1	Physiological responses to training	H7, H16	5 – 6
20	1	Energy systems/nutrition and performance	H7, H8, H11, H16	5 – 6
Core 1				
21(a)	4	Role of health care facilities in achieving better health for all Australians	H4, H5, H16	2 – 4
21(b)	6	Actions needed to address Australia's health priorities	H1, H3, H4, H15, H16	2 – 5
21(c)	10	Health priorities in Australia	H2, H15, H16	2 – 6
Core 2				
22(a)	4	Principles and types of training	H7, H8, H10	2 – 5
22(b)	8	Psychology and performance	H8, H11, H17	2 – 6
22(c)	8	Skills acquisition	H7, H8, H9, H11, H17	2 – 6

Question	Marks	Content	Syllabus outcomes	Targeted performance bands
Option 1				
23(a)	4	Developmental aspects and health	H2	2 – 3
23(b)	6	Factors affecting the health of young people	H2, H15	2 – 4
23(c)	10	The health of young people	H4, H6, H14, H15	2 – 6
Option 2				
24(a)	4	Australian sporting identity	H12	2 – 3
24(b)	6	The relationship between sport and mass media	H16	2 – 4
24(c)	10	Relationship between sport and physical activity, and gender and sexuality	H12, H16	2 – 6
Option 3				
25(a)	4	Management procedures and regimes	H8, H13	2 – 3
25(b)	6	Thermoregulation	H8, H13	2 – 4
25(c)	10	Sports medicine	H13, H17	2 – 6
Option 4				
26(a)	4	Athletes preparing for performances	H8	2 – 3
26(b)	6	Nutrition for endurance	H11, H17	2 – 4
26(c)	10	Improving performance	H7, H8, H10, H17	2 – 6
Option 5				
27(a)	4	Factors that create health inequities	H3	2 – 3
27(b)	6	Why inequities exist in the health of Australians	H2, H3, H15	2 – 4
27(c)	10	Improving the health status of groups affected by health inequities	H3, H5, H14, H15	2 – 6



Sample marking guidelines for Personal Development, Health and Physical Education

The following marking guidelines have been developed for selected questions from the 2001 HSC Specimen Examination in Personal Development, Health and Physical Education. These guidelines indicate the approach that would be taken to marking questions.

For each question, the following are typically included:

1. The syllabus outcomes that are targeted by the question.
2. The assessment rubric from the specimen paper, where there is one, listing the set of general criteria that are used to assess responses.
3. The marking guidelines, which show the criteria to be applied to responses along with the marks to be awarded in line with the quality of the responses. For extended-response questions, performance is described at a number of levels of performance, each covering a range of marks.
4. A sample answer or some points that answers might include. Sample answers indicate the scope and depth of treatment expected, and are not intended to be prescriptive. Similarly, the points that could be included in answers are not intended to be an exhaustive list, but rather an indication of the considerations that students could include in their responses.

Marking guidelines will generally require some refinement at the Marking Centre to take account of unanticipated responses that students present. For essay-type questions, the standard described at each mark range will be made clear during pilot-marking by the selection of sample scripts.

In a standards-referenced framework, examination questions are closely linked to syllabus content and outcomes. Expectations of the question are to be clear in the wording of the question. Marking guidelines will be developed at the same time as the examination questions, by examination committees. The development of marking guidelines will be guided by the Board's *Principles for Developing Marking Guidelines Examinations in a Standards-Referenced Framework*, published in Board Bulletin Volume 9 Number 3 (May 2000).

Sample Marking Guidelines – Personal Development, Health and Physical Education

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) Explain how FOUR of the principles of training can be used to develop aerobic fitness. 4

Outcomes assessed: H7, H8, H10

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Explains how each of four training principles is applied in the development of aerobic fitness 	4
<ul style="list-style-type: none"> • Explains how three training principles are applied in the development of aerobic fitness <p>OR</p> <ul style="list-style-type: none"> • Describes four principles of training and attempts an explanation of how they may be applied to the development of aerobic fitness 	3
<ul style="list-style-type: none"> • Explains how two training principles are applied in the development of aerobic fitness <p>OR</p> <ul style="list-style-type: none"> • Describes three principles of training and attempts an explanation of how they may be applied to the development of aerobic fitness 	2
<ul style="list-style-type: none"> • Explains how one training principle is applied in the development of aerobic fitness <p>OR</p> <ul style="list-style-type: none"> • Identifies four principles of training <p>OR</p> <ul style="list-style-type: none"> • Provides a general description of aerobic fitness and training 	1

Question 22 (continued)

Marks

- (b) It is often stated that the difference between success and failure at the elite level of sport is psychological preparation. Discuss how psychological factors may affect performance.

8

Outcomes assessed: H8, H11, H17

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Clearly and logically communicates a thorough understanding of ways in which a range of psychological factors may affect performance and how the suitability of different psychological strategies varies with context • Discussion considers both positive and negative psychological effects • Discussion supported by relevant examples 	7 – 8
<ul style="list-style-type: none"> • Demonstrates a thorough understanding of ways in which a range of psychological factors may affect performance • Both positive and negative effects are considered 	5 – 6
<ul style="list-style-type: none"> • Provides a general description of a range of psychological factors and how they affect performance 	3 – 4
<ul style="list-style-type: none"> • Presents a simple description of a psychological factor and the way it affects performance 	1 – 2

Question 22 (continued)

Marks

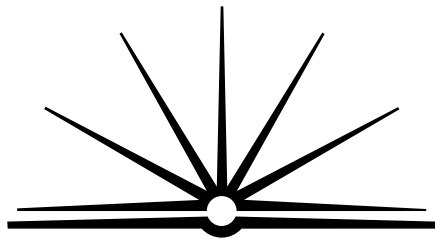
- (c) Learners progress through various stages of skill acquisition. Compare the use of feedback when developing movement skills at the cognitive level and at the autonomous level of skill acquisition.

8

Outcomes assessed: H7, H8, H9, H11, H17

MARKING GUIDELINES

Criteria	Marks
<ul style="list-style-type: none"> • Provides a clear description of the nature of the learner and learning process at the cognitive and autonomous levels of skill acquisition • Describes and compares the relative importance of internal, external, concurrent, delayed, knowledge of performance, and knowledge of results forms of feedback at each stage of skill acquisition • Provides a sound explanation of the points made in the comparison 	7 – 8
<ul style="list-style-type: none"> • Provides a general description of the difference between the cognitive and autonomous levels of skill acquisition • Describes and compares the relative importance of at least three forms of feedback to the cognitive and autonomous stages 	5 – 6
<ul style="list-style-type: none"> • Provides a basic description of the cognitive and autonomous stages of skills acquisition • Makes basic comparisons relating to two forms of feedback 	3 – 4
<ul style="list-style-type: none"> • Makes a general statement about the stages of skill acquisition <p>OR</p> <ul style="list-style-type: none"> • Provides a basic description of a form of feedback 	1 – 2



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

2001
HIGHER SCHOOL CERTIFICATE
SPECIMEN EXAMINATION

Personal Development, Health and Physical Education

General Instructions

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

Section I Pages 2 – 17

Total marks **(60)**

This section has two parts, Part A and Part B

Part A

Total marks **(20)**

- Attempt Questions 1 – 20
- Allow about 40 minutes for this part

Part B

Total marks **(40)**

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

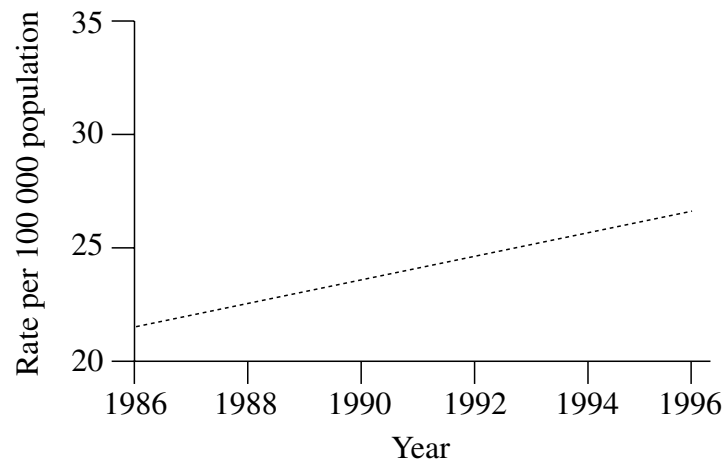
Section II Pages 19 – 20

Total marks **(40)**

- Attempt TWO questions from Questions 23 – 27
- Allow about 1 hour and 10 minutes for this section

- 1 Which cause of female mortality is increasing in incidence and has tobacco smoking as a major determinant?
- (A) Diabetes type I
 - (B) Diabetes type II
 - (C) Heart disease
 - (D) Lung cancer
- 2 Which of the following is true of health initiatives that reflect the new public health model?
- (A) They focus on curing disease.
 - (B) They use scare tactics to change health behaviour.
 - (C) They focus on the social factors that lead to ill-health.
 - (D) They place responsibility for ill-health on the groups affected.
- 3 Which list includes ONLY priority areas for action as identified in the 1998 Australian Institute of Health and Welfare report *Australia's Health*?
- (A) Cardiovascular disease, cancer and mental health
 - (B) HIV/AIDS, cancer and injury
 - (C) Mental health, asthma and respiratory disease
 - (D) Asthma, HIV/AIDS and cardiovascular disease

- 4 The graph shows the trend in the death rate from a particular cause for Australian males aged 15–24 years.



Which cause of mortality is represented by the graph?

- (A) Asthma
 - (B) Cancer
 - (C) Circulatory disease
 - (D) Suicide
- 5 In Australia, which one of the following pairs has the greatest difference in life expectancy?
- (A) Indigenous people and non-indigenous people
 - (B) City residents and country residents
 - (C) University graduates and non-graduates
 - (D) Males and females
- 6 One leading hospital recently allocated greater resources to counselling services.

Which Ottawa Charter action area is being implemented in this example?

- (A) Create supportive environment
- (B) Strengthen community action
- (C) Build public health policy
- (D) Ensure adequate government controls

- 7 Which of the following is the leading cause of morbidity in Australia?
- (A) Cardiovascular disease
 - (B) Gastrointestinal illness
 - (C) Injury
 - (D) Respiratory disease
- 8 How could the most effective use of health care facilities by all sections of the community be achieved?
- (A) By developing personal consumer skills
 - (B) By increasing the use of alternative medicines and health care approaches
 - (C) By improving the equity of access and support
 - (D) By lowering the cost of private health insurance
- 9 Which of the following is the most effective way of managing morbidity and mortality in Australia?
- (A) Improving the physical environment
 - (B) Curing high priority diseases
 - (C) Identification of risk factors
 - (D) Primary preventative health care
- 10 One of the diseases identified in the priority areas for action in Australia is characterised by:
- an increase in incidence with increasing age;
 - a link to heredity;
 - problems such as blindness and kidney damage if left undiagnosed or untreated.

Which of the following strategies would best reduce the prevalence of this disease?

- (A) Government controls on pharmaceuticals
- (B) Health promotion aimed at diet and exercise programs
- (C) Health promotion directed at smoking and alcohol consumption
- (D) Continuation and development of programs targeting safe drug use

- 11** What combination of foods should be included in a pre-competition meal for an athlete in an endurance event?
- (A) High carbohydrate, low fat and low protein
 - (B) Low carbohydrate, high fat and high protein
 - (C) High carbohydrate, low fat and high protein
 - (D) Low carbohydrate, low fat and high protein
- 12** Which of the following describes a tennis serve?
- (A) An open, continuous and self-paced skill
 - (B) A gross, discrete and self-paced skill
 - (C) A closed, continuous and externally paced skill
 - (D) A fine, discrete and externally paced skill
- 13** Pat enjoys playing netball because many of her friends play in the same team. This is an example of which type of behaviour?
- (A) Performance visualisation
 - (B) Social reinforcement
 - (C) Goal setting
 - (D) Intrinsic motivation
- 14** Sara is a 40-year-old female who has just returned from a week's holiday at an island resort. Her blood pressure is 120/80. Sara has been advised to undergo pre-screening before commencing an exercise program.
- What is the most likely reason for this advice?
- (A) Sara's sex
 - (B) Sara's age
 - (C) Sara's blood pressure
 - (D) Sara's recent week of minimal physical activity

- 15** The energy for high intensity activity that lasts for more than ten seconds comes from the breakdown of muscle glycogen without oxygen.

To what does this description refer?

- (A) The ATP/PC system
- (B) Aerobic glycolysis
- (C) Anaerobic glycolysis
- (D) Phosphocreatine breakdown

- 16** A person was weighed before and after participating in a moderately intense sporting activity for one hour in a hot, humid environment. Despite adequate fluid intake, the person lost 2 kilograms of body weight.

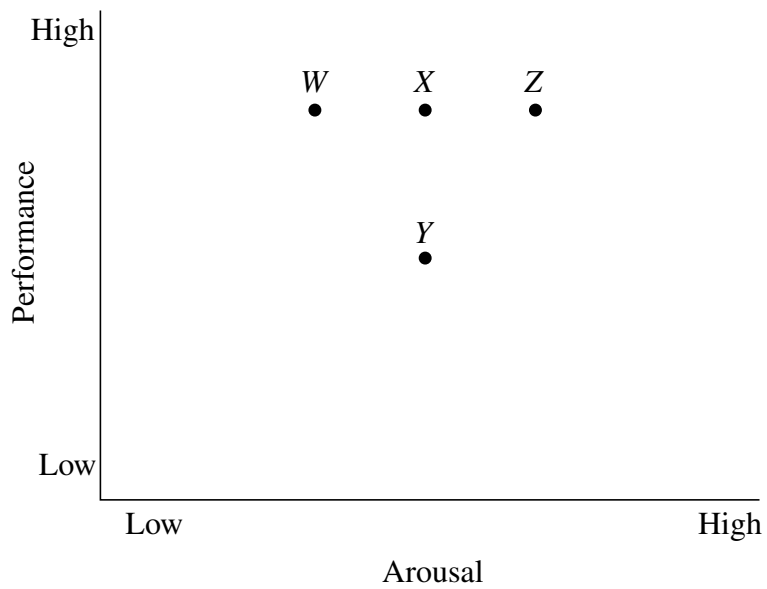
What is the most likely reason for this weight loss?

- (A) Decrease in fat due to its use as an energy fuel
- (B) Inappropriate clothing, restricting radiant heat loss
- (C) Inability to absorb water at the same rate at which it was lost
- (D) Failure to consume an appropriate pre-competition meal

- 17** Why does mental rehearsal have a positive impact on performance?

- (A) It takes place at a slower speed than actual performance.
- (B) Neuromuscular pathways are established prior to performance.
- (C) Errors are focused upon in order to eliminate them.
- (D) Other elite performers can be visualised performing the skills.

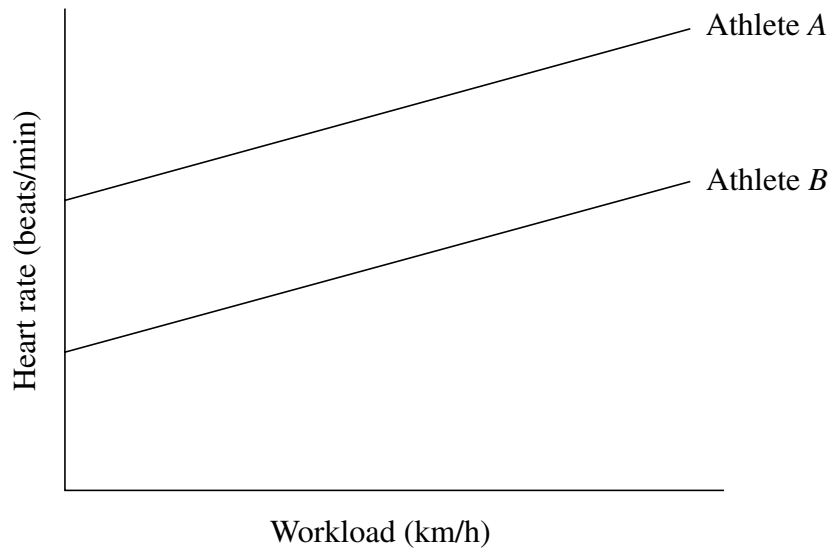
18 The graph shows performance against arousal levels.



Position *X* indicates an athlete's optimal performance of a gross motor skill. Which position on the graph best illustrates this athlete's optimal performance of a fine motor skill?

- (A) *W*
- (B) *X*
- (C) *Y*
- (D) *Z*

- 19 The graph shows the heart rate of two athletes working on a treadmill with the workload gradually increasing.

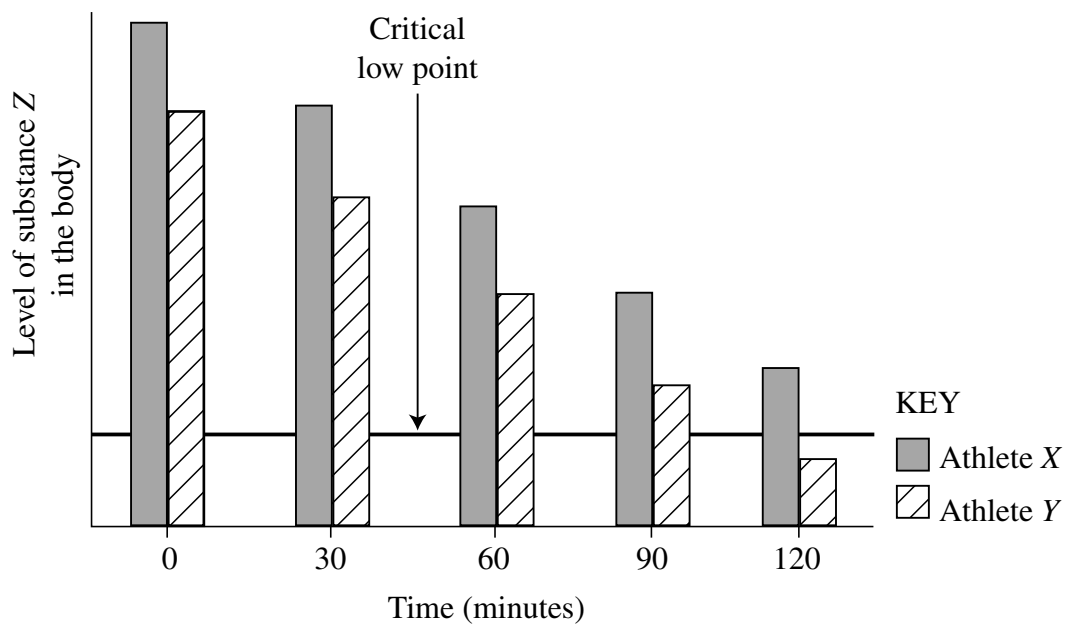


While the athletes' heart rates were substantially different at each workload, their cardiac outputs were found to be the same.

Which of the following explains why the cardiac output for each athlete was the same?

- (A) Athlete *A* has a higher stroke volume than athlete *B*.
- (B) Athlete *A* has a lower stroke volume than athlete *B*.
- (C) Athlete *A* has a larger lung capacity than athlete *B*.
- (D) Athlete *A* has a smaller lung capacity than athlete *B*.

- 20 Two athletes participated in an endurance event, both completing the event in 120 minutes. The graph shows the level of substance Z in each athlete's body at different times during the event.



Athlete X consumed a special diet to increase the level of substance Z in the body prior to participation in the event. Athlete Y did not, and struggled to complete the event, owing to a very low level of substance Z near the end of the event.

What is substance Z?

- (A) Fat
- (B) Iron
- (C) Glycogen
- (D) Potassium

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Centre Number

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Student Number

Section I

Part B

Total marks (40)

Attempt Questions 21 – 22

Allow about 1 hour and 10 minutes for this part

Answer the questions in the spaces provided.

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
-

Question 21 — Health Priorities in Australia (20 marks)

Marks

(a) Describe the features of an effective community health care service.

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Question 21 continues on page 12

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Centre Number

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Student Number

Section I – Part B

Question 22 — Factors Affecting Performance (20 marks)

Marks

- (a) Explain how FOUR of the principles of training can be used to develop aerobic fitness. **4**

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Question 22 continues on page 16

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Section II

Total marks (40)

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) Outline FOUR developmental aspects that impact on the health of young people.	4
(b) Choose ONE major health issue that affects young people, and discuss the contributing factors.	6
(c) ‘There is no simple solution for the improvement of the health status of young people.’	10

Analyse this statement with reference to factors that act as barriers to improved health.

Question 24 — Sport and Physical Activity in Australian Society (20 marks)

(a) Identify TWO sports that have made a significant contribution to Australia’s national identity. Briefly outline the influence these sports have had on what is viewed as ‘being Australian’.	4
(b) ‘When we look at sport in Australia, it is the media that determines what we watch, what we play and what we like.’	6

Discuss this statement with reference to the role of the media in Australian sport.

(c) Critically analyse how gender and sexuality impact on patterns of sport sponsorship.	10
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	Marks
Question 25 — Sports Medicine (20 marks)	
(a) Describe ONE of the following sports injury management procedures: (i) TOTAPS or (ii) RICER.	4
(b) Describe the body's process of temperature regulation and explain how differing climatic conditions may affect safe participation in sport.	6
(c) You have been asked to design a sports policy for a junior sporting club that specifically addresses the issue of safe participation. Justify the key points you would include.	10
 Question 26 — Improving Performance (20 marks)	
(a) Briefly outline FOUR types of training.	4
(b) A nutritionist has been asked to advise a female endurance athlete of dietary needs leading up to a major competition. Identify and explain the key components that would be included in the nutritionist's advice.	6
(c) There are many factors involved in the preparation of an athlete for optimum performance. Select EITHER a power athlete OR an endurance athlete. Design a training program for this athlete, justifying the key features that would need to be included.	10
 Question 27 — Equity and Health (20 marks)	
(a) Briefly outline FOUR factors that have created health inequities in Australia.	4
(b) A number of different groups in Australia experience health inequities. Discuss how the incidence of risk factors has contributed to the major health problems of TWO of these groups.	6
(c) Explain how the health inequities of EITHER Aboriginal and Torres Strait Islander peoples OR people living in rural and remote locations, could be addressed. In your answer, refer to specific strategies to meet their particular health needs.	10

End of paper