

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

2009

**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 and 13

Total marks – 100

Section I Pages 2–15

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 for Questions 1–20.

- 1 Which cancer causes the most deaths in Australia?
 - (A) Lung
 - (B) Skin
 - (C) Breast
 - (D) Colorectal

- 2 What is *epidemiology*?
 - (A) The design of health promotion initiatives
 - (B) Information about the health of a population
 - (C) A characteristic of the new public health approach
 - (D) A study of the socio-cultural factors influencing health

- 3 Which type of cardiovascular disease causes the greatest number of deaths in Australia?
 - (A) Arteriosclerosis
 - (B) Coronary heart disease
 - (C) Cerebrovascular disease
 - (D) Peripheral vascular disease

- 4 What are the major benefits of having private health insurance?
 - (A) Reduced cost for dental care and reduced access to prescribed medications
 - (B) Improved access to private hospitals and free medical treatment
 - (C) Choice of doctor and reduced waiting times for surgery
 - (D) Choice of doctor and bulk billing options

- 5 Which action areas of the Ottawa Charter are best reflected in the NSW government initiative that restricted smoking in hotels and clubs?
- (A) Developing personal skills and reorienting health services
 (B) Developing personal skills and creating supportive environments
 (C) Building healthy public policy and reorienting health services
 (D) Building healthy public policy and creating supportive environments
- 6 Which of the following are priorities for health promotion, as defined by the Jakarta Declaration?
- (A) Empowering individuals and reorienting health services
 (B) Expanding partnerships and promoting social responsibility for health
 (C) Increasing investments for health development and focusing on individual behaviour change
 (D) Increasing community capacity and directing greater focus towards alternative healthcare practices
- 7 Which of the following describes the health of socioeconomically disadvantaged Australians?
- (A) High rates of cardiovascular disease, asthma and diabetes
 (B) High rates of cardiovascular disease and diabetes and low rates of mental health conditions
 (C) Low rates of cancer, injury and diabetes
 (D) Low rates of cardiovascular disease and high rates of diabetes and injury
- 8 In Australia, what are the current trends in mortality rates due to cancer and cardiovascular disease?

Mortality rates

	<i>Cancer</i>	<i>Cardiovascular Disease</i>
(A)	Increasing	Increasing
(B)	Increasing	Decreasing
(C)	Decreasing	Decreasing
(D)	Decreasing	Increasing

9 Which factors contribute to health inequities for people living in rural and isolated locations?

- (A) Lower life expectancy, greater participation in physical activity and lower levels of education
- (B) Lower levels of harmful alcohol use, lower socioeconomic status and higher incidence of cancer
- (C) Greater smoking rates, reduced access to healthcare services and increased risk of injury
- (D) Greater infant mortality rate, decreased health screening services and lower levels of obesity

10 The graph shows average expenditure on health in Australia in 2004–05.



What are the most likely reasons for the increase in expenditure per person as age increases above 45 years?

- (A) Increased use of public health interventions such as vaccinations and breast screening
- (B) Increased rate of hospital admissions and use of services to treat cardiovascular disease and cancer
- (C) Greater use of medication and increased rate of hospital admissions from melanomas
- (D) Greater use of alternative healthcare practices and increased participation in quit smoking programs

- 11** What is *static stretching*?
- (A) Gradually stretching the muscle to a point where it is held for 10–30 seconds
 - (B) Completing a stretch, followed by an isometric contraction and a further stretch
 - (C) Gently repeating movements to stretch muscle groups that cross over a joint
 - (D) Forcing the muscle to lengthen by continual bouncing during the stretch
- 12** What is the best nutrient for an athlete to consume 30 minutes before they swim five kilometres?
- (A) Fat
 - (B) Fibre
 - (C) Protein
 - (D) Carbohydrate
- 13** Immediately before taking a penalty shot, an athlete creates an image of their successful performance.
- Which psychological strategy does this demonstrate?
- (A) Concentration
 - (B) Goal setting
 - (C) Mental rehearsal
 - (D) Relaxation
- 14** Which of the following are most likely to require iron supplementation?
- (A) 100 metre runners and adolescent males
 - (B) Marathon runners and vegetarians
 - (C) High jumpers and vegetarians
 - (D) Long jumpers and triathletes
- 15** Which of the following is a gross, closed and discrete skill?
- (A) Returning a tennis serve
 - (B) Receiving a pass in football
 - (C) Performing a spike in volleyball
 - (D) Taking a free throw in basketball

- 16** Which of the following best demonstrates the principle of progressive overload?
- (A) Ensuring that an athlete's heart rate is below 70–85% of heart rate maximum during each session
 - (B) Gradually increasing the weight and number of repetitions for strength training exercises
 - (C) Participating in a variety of activities to develop a range of muscle groups
 - (D) Scheduling 1–2 training sessions each week to maximise training benefits

- 17** A basketballer observes the positioning of an opposing player's body and moves to successfully intercept a pass.

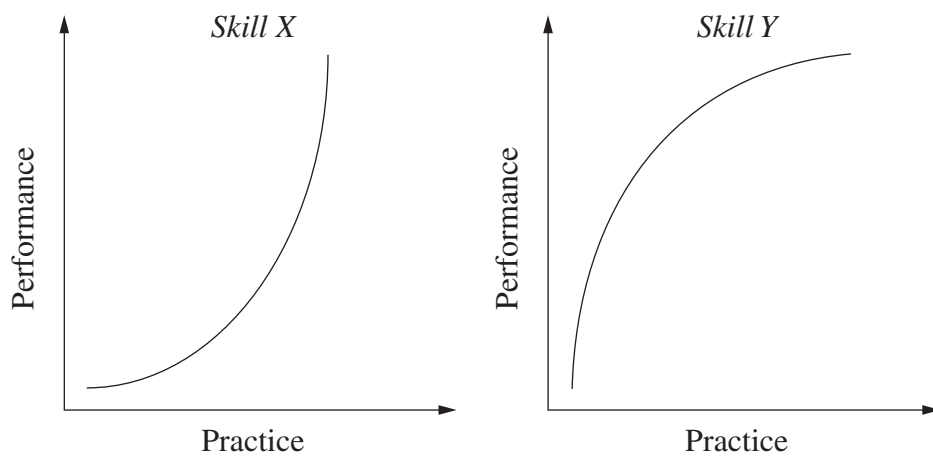
What characteristic of a skilled performer is this basketballer demonstrating?

- (A) Anticipation and timing
 - (B) Consistency
 - (C) Mental approach
 - (D) Visualisation
- 18** Why should athletes consume fluids at regular intervals during a training session in hot and humid conditions?
- (A) To replace the fluid lost due to sweating and decrease the body temperature through vasoconstriction
 - (B) To increase the fluid loss through convection, conduction and vasodilation
 - (C) To decrease body temperature and replace the fluid lost due to sweating
 - (D) To decrease body temperature through convection and vasoconstriction

- 19** Which physiological adaptations are likely to be evident after an athlete has participated in an eight-week aerobic training program?

	<i>Resting heart rate</i>	<i>Maximal oxygen uptake</i>
(A)	Increased	Decreased
(B)	Increased	Increased
(C)	Decreased	Decreased
(D)	Decreased	Increased

20 The graphs show the learning curves of a student practising two new skills.



Which of the following best reflects the skills X and Y?

	<i>Skill X</i>	<i>Skill Y</i>
(A)	High jump	Juggling a soccer ball
(B)	Throwing a ball	Swimming butterfly
(C)	Long jump	Front somersault
(D)	Tennis serve	Shotput

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Personal Development, Health and Physical Education

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Centre Number

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Student Number

Section I (continued)

Part B – 40 marks

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)

(a) Describe how reorienting health services can improve the health of Australians. **4**

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Question 21 continues on page 10

Personal Development, Health
and Physical Education

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Centre Number

Section I – Part B (continued)

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Student Number

Question 21 (continued)

- (c) Assess how effective the new public health approach has been in addressing one of Australia’s health priority areas. **10**

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Question 21 continues on page 12

Question 21 (continued)

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End of Question 21

Personal Development, Health and Physical Education

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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

Question 22 — Factors Affecting Performance (20 marks)

(a) Complete the table by identifying the features of each energy system.

5

Features	Alactacid (ATP/PC) system	Aerobic system
<i>Source of fuel</i>		
<i>Duration of the system</i>		
<i>By-products</i>		
<i>Recovery rate</i>		
<i>Specific sporting example where the energy system is dominant</i>		

Question 22 continues on page 14

Question 22 (continued)

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End of Question 22

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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
-

Question 23 — The Health of Young People (20 marks)

- (a) What are the patterns of morbidity and mortality for young people? **4**
- (b) Explain the role of supportive networks in enabling young people to achieve better health. In your answer, refer to ONE area of concern you have studied. **6**
- (c) Analyse the social factors that impact on the health of young people. **10**

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

- (a) What are the economic implications for the nation hosting an Olympic Games? **4**
- (b) Describe the nature and role of physical activity and games for Indigenous Australians prior to colonisation. **6**
- (c) Analyse the relationship between sport and the mass media. **10**

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
-

Question 25 — Sports Medicine (20 marks)

- (a) What are the signs, symptoms and management of hard tissue injuries? **4**
- (b) An athlete is recovering from an ankle injury. Explain the factors the athlete needs to consider before returning to play. **6**
- (c) Analyse the role of physical preparation in enhancing the wellbeing of an athlete. **10**

Question 26 — Improving Performance (20 marks)

- (a) What are the features of isotonic and isokinetic resistance training? **4**
- (b) Explain the role a sports psychologist has in preparing elite athletes for competition. **6**
- (c) Analyse the influence of the phases of competition on an endurance athlete's training program. **10**

Question 27 — Equity and Health (20 marks)

- (a) What are the characteristics of the social justice framework for addressing health inequities? **4**
- (b) Explain the role of funding in addressing health inequities. **6**
- (c) Analyse the factors influencing the health of rural and remote communities. **10**

End of paper