



NSW Education Standards Authority

**2021** HIGHER SCHOOL CERTIFICATE EXAMINATION

# Personal Development, Health and Physical Education

---

**General  
Instructions**

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black pen

---

**Total marks:  
100****Section I – 60 marks** (pages 2–20)

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 21–27
- Allow about 1 hour and 10 minutes for this part

**Section II – 40 marks** (pages 21–22)

- Attempt TWO questions from Questions 28–32
- Allow about 1 hour and 10 minutes for this section

**Section I**  
**60 marks**

**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 of the following describes the trend in life expectancy at birth in Australia over the last 10 years?
  - A. Stable
  - B. Increasing
  - C. Decreasing
  - D. No clear trend
  
- 2 What type of cancer currently has the highest mortality rate in Australia?
  - A. Breast
  - B. Lung
  - C. Prostate
  - D. Skin
  
- 3 Which of the following is used when performing a proprioceptive neuromuscular facilitation (PNF) stretch?
  - A. Isometric contraction and static stretches
  - B. Isometric contraction and dynamic stretches
  - C. Isotonic contraction and static stretches
  - D. Isotonic contraction and dynamic stretches
  
- 4 What is the predominant energy system used by an athlete in a 400-metre running event?
  - A. Aerobic
  - B. ATP-PC
  - C. Phosphate
  - D. Lactic acid

- 5 Which of the following best describes the nature of the skill demonstrated when a tennis player is receiving a serve from an opponent?
- A. Self-paced and open
  - B. Self-paced and closed
  - C. Externally paced and open
  - D. Externally paced and closed
- 6 For which of the following has there been an increasing mortality rate for both men and women over the past 10 years in Australia?
- A. Lung cancer
  - B. Coronary heart disease
  - C. Cerebrovascular disease
  - D. Dementia and Alzheimer's disease
- 7 A golfer is extremely nervous and shaking prior to hitting the ball. She closes her eyes and pictures herself making a smooth back swing.
- Which psychological strategy is the golfer using?
- A. Focusing
  - B. Goal setting
  - C. Visualisation
  - D. Concentration
- 8 What could be an advantage for an individual who has private health insurance?
- A. The Medicare Safety Net is decreased.
  - B. The Medicare Levy Surcharge needs to be paid.
  - C. The cost of some ancillary health services is reduced.
  - D. The recovery time after elective surgery in a private hospital is decreased.

- 9** An athlete consistently and accurately passes and controls the ball when under pressure during games. He communicates and interacts positively with his teammates.

Which two characteristics of the learner are being demonstrated by this athlete?

- A. Ability and personality
- B. Heredity and confidence
- C. Ability and prior experience
- D. Personality and prior experience

- 10** At the end of a game, a netball coach gives the goal shooter the following feedback.

‘You made a lot of technical errors when shooting today. Next time remember to relax and focus on your wrist action when shooting for goal.’

What type of feedback is being given?

- A. Internal
- B. Concurrent
- C. Knowledge of results
- D. Knowledge of performance

- 11** A local council has decided to install outdoor exercise equipment in a council-managed park to make physical activity more accessible. It has also employed a personal trainer for set times each day to provide advice and instruction to individuals using the equipment.

Which two action areas of the Ottawa Charter does this strategy best demonstrate?

- A. Strengthening community action and Developing personal skills
- B. Creating supportive environments and Developing personal skills
- C. Strengthening community action and Building healthy public policy
- D. Creating supportive environments and Building healthy public policy

- 12** To select a national team, a group of coaches designs judging criteria which include a checklist of performance skills and a scoring system for each of these skills. The same judging criteria will be used by all the coaches.

Which of the following identifies the features of this assessment of the athletes?

- A. Personal criteria, objective
  - B. Personal criteria, subjective
  - C. Prescribed criteria, objective
  - D. Prescribed criteria, subjective
- 13** The chance of being alive for five years after being diagnosed with a condition, compared with the general population, is called the 5-year relative survival rate.

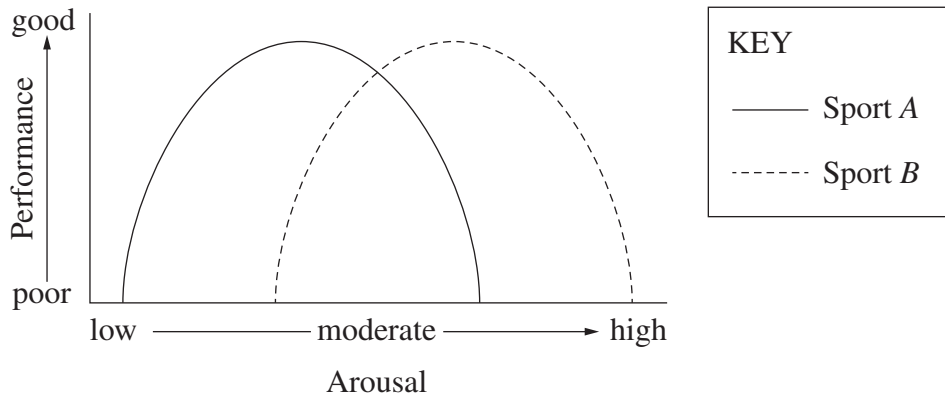
The table shows data for breast cancer and lung cancer in Australia, 2011–2015.

<i>Cancer</i>	<i>5-year relative survival rate</i>
Breast	90.8%
Lung	17.4%

Which of the following provides the most likely reason for the difference in these 5-year relative survival rates?

- A. Health promotion strategies in schools have been more effective in reducing risk factors for lung cancer compared to breast cancer.
- B. There was a higher hospitalisation rate and greater demand for emerging treatments for lung cancer compared to breast cancer.
- C. There was a higher demand for palliative care services when individuals were diagnosed with breast cancer compared to lung cancer.
- D. Technology advancements have increased early detection and provided more successful treatment options for breast cancer compared to lung cancer.

- 14 The graphs show the relationship between the levels of arousal and the performance levels of athletes in two different sports, A and B.



Which row of the table identifies the sports that these graphs most likely represent?

	<i>Sport A</i>	<i>Sport B</i>
A.	Archery	Weightlifting
B.	Archery	Shooting
C.	Boxing	Weightlifting
D.	Boxing	Shooting

- 15 Which row in the table shows the trend over the past 10 years for Aboriginal and Torres Strait Islander peoples in relation to the identified health measures?

	<i>Infant mortality rate</i>	<i>Life expectancy</i>	<i>Cardiovascular disease mortality rate</i>
A.	Decreasing	Decreasing	Increasing
B.	Decreasing	Increasing	Decreasing
C.	Increasing	Increasing	Increasing
D.	Increasing	Decreasing	Decreasing

- 16** Which strategy is most likely to reduce the current impact of a growing ageing population on Australia's health system and services?
- A. Increasing support services that enable older Australians to keep living in their own home
  - B. Providing education programs in secondary school to reduce the risk factors for preventable chronic disease
  - C. Introducing an application fee for individuals to register as volunteers with organisations that assist the elderly
  - D. Sending annual reminder emails to older Australians encouraging them to register for government support programs
- 17** The table shows the features of training programs *A* and *B*. An untrained individual is considering participating in one of these programs for a period of 8 weeks.

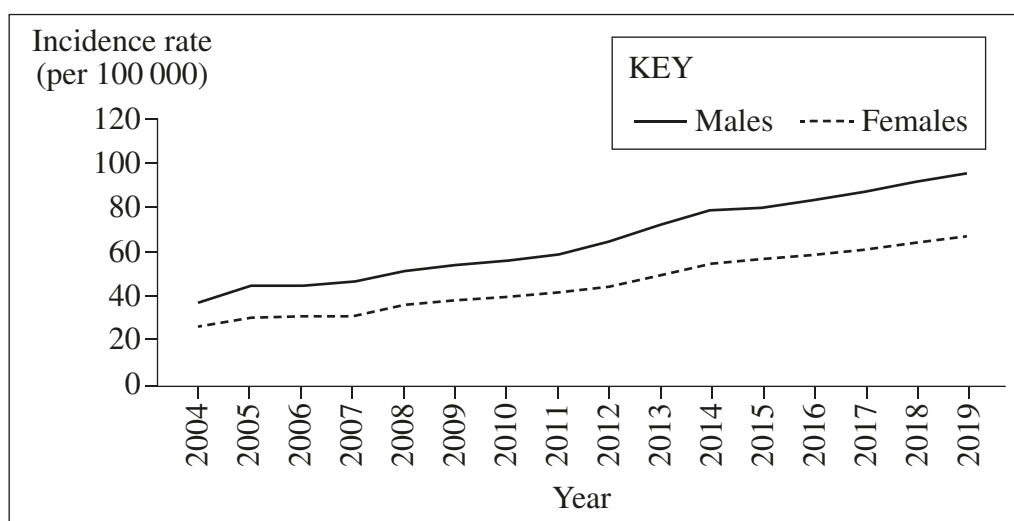
<i>Features</i>	<i>Program A</i>	<i>Program B</i>
Training method(s)	Continuous	Aerobic interval, fartlek and circuit
Training threshold	50–60% maximum heart rate	70–80% maximum heart rate
Duration of session	20 minutes	60 minutes for the first 2 weeks, increasing by 15 minutes every 2 weeks
Frequency of sessions	2 times each week	3 times each week

- Which of the following statements best compares a physiological adaptation the individual would most likely experience from these programs?
- A. Program *B* will result in a greater increase to stroke volume than Program *A*.
  - B. Program *A* will result in a greater increase to stroke volume than Program *B*.
  - C. Program *A* will result in a more significant decrease to resting heart rate than Program *B*.
  - D. Program *B* will result in a more significant increase to resting heart rate than Program *A*.

18 What are the likely benefits of health promotion that involves a partnership between the government sector, non-government agencies and local communities?

- A. More effective and sustainable health outcomes as this collaboration has a greater focus on treatment and cure
- B. Efficient use of resources and enhanced empowerment of individuals as education programs are replaced by broader government policies
- C. More comprehensive and specifically tailored strategies are established with health issues addressed at a number of levels with effective use of resources
- D. Common goals are established and cost-saving strategies are implemented as individuals should require fewer consultations with a general practitioner (GP)

19 The graph shows the trends in the incidence of a type of cancer for males and females in Australia from 2004 to 2019.



Australian Institute of Health and Welfare 2019. Cancer in Australia 2019. Cancer series no.119. Cat. no. CAN 123. Canberra: AIHW.

Which row of the table identifies the type of cancer represented in the graph and the most effective strategy for the federal government to implement in order to reduce its overall expenditure on this type of cancer by 2040?

	<i>Type of cancer</i>	<i>Strategy</i>
A.	Lung	Increase the Medicare rebate for screening consultations with a general practitioner
B.	Lung	Build more health care facilities in each state to provide greater access to quit smoking services
C.	Skin	Provide funding to state governments to implement prevention initiatives in education, workplace and community settings
D.	Skin	Send an annual reminder letter to Australians aged over 40 years to participate in screening tests



- 20 Which row in the table provides the most effective post-performance dietary intake within 60 minutes of athletes competing in the identified events?

	<i>Basketball game</i>	<i>Half marathon run</i>	<i>Shotput</i>
A.	<ul style="list-style-type: none"> <li>• 600–1000 mL water</li> <li>• Low fat, high carbohydrate, moderate protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 600 mL sports drink and 600 mL water</li> <li>• High carbohydrate, high protein meal containing healthy fats</li> </ul>	<ul style="list-style-type: none"> <li>• 300–500 mL water</li> <li>• High protein meal</li> </ul>
B.	<ul style="list-style-type: none"> <li>• 600–1000 mL water</li> <li>• Moderate carbohydrate, low protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 600–1000 mL water</li> <li>• Low fat, high carbohydrate, moderate protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 600 mL sports drink</li> <li>• High carbohydrate, low protein meal</li> </ul>
C.	<ul style="list-style-type: none"> <li>• 600 mL sports drink</li> <li>• High carbohydrate, low protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 300–500 mL water</li> <li>• High protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 300 mL sports drink</li> <li>• High carbohydrate meal</li> </ul>
D.	<ul style="list-style-type: none"> <li>• 300–500 mL water</li> <li>• High protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 600 mL sports drink and 600 mL water</li> <li>• High carbohydrate, low protein meal</li> </ul>	<ul style="list-style-type: none"> <li>• 600 mL water</li> <li>• Low fat, high carbohydrate, moderate protein meal</li> </ul>

BLANK PAGE

BLANK PAGE

BLANK PAGE

--	--	--	--	--

Centre Number

**Personal Development,  
Health and Physical Education**

--	--	--	--	--	--	--	--	--

Student Number

**Section I Part B  
Answer Booklet**

**40 marks**

**Attempt Questions 21–27**

**Allow about 1 hour and 10 minutes for this part**

**Instructions**

- Write your Centre Number and Student Number at the top of this page.
- Answer the questions in the spaces provided. These spaces provide guidance for the expected length of response.
- Extra writing space is provided at the back of this booklet. If you use this space, clearly indicate which question you are answering.

**Please turn over**

**Question 21** (7 marks)

(a) Outline TWO types of cardiovascular disease in Australia.

3

.....  
.....  
.....  
.....  
.....  
.....  
.....

(b) Explain how TWO protective factors can reduce the risk of cardiovascular disease.

4

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

Do NOT write in this area.

**Question 22** (3 marks)

Why would an athlete competing in a long jump event consider using creatine supplementation to improve performance?

3

.....

.....

.....

.....

.....

.....

.....

.....

**Question 23** (4 marks)

Describe TWO ways in which extrinsic motivation can affect an athlete's performance. Provide examples to support your answer.

4

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Do NOT write in this area.

**Question 24** (5 marks)

Describe how *specificity* and *progressive overload* can be applied to a strength training program in order to improve an athlete's performance. Provide examples to support your answer.

5

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

Do NOT write in this area.











## Personal Development, Health and Physical Education

### Section II

**40 marks**

**Attempt TWO questions from Questions 28–32**

**Allow about 1 hour and 10 minutes for this section**

Answer both questions in the Section II Writing Booklet. Extra writing booklets are available.

---

Your answers will be assessed on how well you:

- demonstrate knowledge and understanding of health and physical activity concepts relevant to the question
  - apply the skills of critical thinking and analysis
  - communicate ideas and information using relevant examples
  - present a logical and cohesive response
- 

#### **Question 28 — The Health of Young People (20 marks)**

- (a) (i) Outline how ONE global event has influenced the lives of young people. **3**
- (ii) In regard to the influence of technology, compare the lives of young people today to the lives of young people in previous generations. **5**
- (b) Analyse how socioeconomic and environmental determinants can contribute to TWO major health issues affecting young people. **12**

#### **Question 29 — Sport and Physical Activity in Australian Society (20 marks)**

- (a) Consider the beginning of modern sport in 19th century England and colonial Australia and the nature of sport in today's society.
- (i) Outline how the meanings of amateur sport and professional sport have changed during this time. **3**
- (ii) Explain the changes in women's participation in sport during this time. **5**
- (b) To what extent have physical activity and sport influenced the lives and identity of Indigenous Australians? **12**

**Please turn over**

**Question 30 — Sports Medicine (20 marks)**

- (a) (i) Outline how to reduce the risk of overuse injuries in children and young athletes when they are engaged in sport. **3**
- (ii) Sports coaches often work with children and young athletes who have medical conditions including asthma and diabetes. **5**
- Explain how a coach should manage children and young athletes who have these conditions.
- (b) Analyse the rehabilitation procedures an athlete should use one week after experiencing a soft tissue injury. **12**

**Question 31 — Improving Performance (20 marks)**

- (a) (i) Outline the dangers to an athlete of using performance enhancing drugs. **3**
- (ii) It is proposed that drug testing be introduced at the Australian championships for athletes who compete in a final. **5**
- Discuss the introduction of drug testing at this level of the competition.
- (b) To what extent do the initial planning considerations for elite athletes differ from those for recreational participants when preparing for an event or competition? **12**

**Question 32 — Equity and Health (20 marks)**

- (a) (i) In relation to ONE population group experiencing health inequities, outline the media's role in influencing public policy. **3**
- (ii) Explain the effects of a government intervention for ONE population group that experiences health inequities. **5**
- (b) Consider a specific health promotion strategy aimed at reducing the health inequities experienced by ONE population group. **12**

To what extent can the characteristics of effective health promotion strategies contribute to the potential success of this strategy?

**End of paper**