

# 2009 HSC

## Personal Development, Health and Physical Education

### Sample Answers

This document contains 'sample answers', or, in the case of some questions, 'answer may include'. These are developed by the examination committee for two purposes. The committee does this:

- (a) as part of the development of the examination paper to ensure the questions will effectively assess students' knowledge and skills, and
- (b) in order to provide some advice to the Supervisor of Marking about the nature and scope of the responses expected of students.

The 'sample answers' or similar advice, are not intended to be exemplary or even complete responses. They have been reproduced in their original form as part of the examination committee's 'working document'. While the handwritten notes have been typed for legibility, no further editorial change or addition has occurred.

## Section II

### Question 21 (a)

*Answers could include:*

Characteristics and/or features:

- Increased access to health information/services
- Shift from treatment to prevention
- Increasing health services based on need

*Examples could include:*

- Health screening tests in a range of settings e.g. workplace, schools, pharmacies
- HPV vaccinations for secondary school female students to reduce cervical cancer
- Doctors focusing on the whole person and prevention strategies rather than curative approaches

### Question 21 (b)

*Answers could include:*

- Epidemiological data and trends e.g. life expectancy, mortality, infant mortality
- Social determinants e.g. lower SES, decreased access to health services, geographical isolation.
- National health priority are trends e.g. higher CVD, diabetes, cancer, injury

### Question 21 (c)

*Answers could include:*

- New public health approach eg. empowerment of individuals, community participation, recognition of social determinants of health, changing role of health professionals, Ottawa charter
- National health priority areas eg. CVD, cancer, injury, diabetes, mental health, asthma, arthritis and musculoskeletal conditions.

**Question 22 (a)**

*Answers could include:*

<b>Factors relating to energy systems</b>	<b>Alactacid (ATP/PC) system</b>	<b>Aerobic system</b>
Source of fuel	Creatine phosphate	Carbohydrates – stored in muscle and liver as glycogen; fats and occasionally protein
Duration of the system	10–12 seconds of high intensity activity (95–100% maximum effort)	Endless supply at low to moderate levels of intensity (less than 70%)
By-products	Nil	CO <sub>2</sub> ; water
Recovery rate	50% recovered in approximately 30 seconds; fully recovered in approximately two minutes	Up to 48 hours depending on level of depletion
Specific sporting example where the energy system is dominant	Shot put, discus, javelin, 100 m sprint, baseball pitch, bench press of one to six <b>repetition maximums (RMs)</b>	Triathlon, 5000 m run, marathon, 1500 m swim

**Question 22 (b)**

*Answers could include:*

- Types of practice- massed, distributed, whole, part
- Types of feedback- internal, external, positive, negative, concurrent, delayed, knowledge of results, knowledge of performance
- Stages of skill acquisition – cognitive, associative, autonomous.

## Section III

### Question 23 (a)

*Answers could include:*

- Generally healthy compared to other population groups
- Mortality; injury, suicide, poisoning, cancer
- Morbidity; STI's, diabetes type 1, mental health issues, depression, eating disorders, sports injuries
- Mortality is declining but is higher for males than females.

### Question 23 (b)

*Answers could include:*

- Areas of concern: stress and coping, substance use, violence, risk taking and road injuries, sexuality, body image
- Identifying the need for support
- Seeking help for self and others
- Receiving support
- Establishing a mentor relationship
- Overcoming barriers to support

### Question 23 (c)

*Outcomes assessed: H2, H3, H4, H15*

*Answers could include:*

- Health of young people eg. morbidity, mortality, areas of concern
- Social factors: socioeconomic status, employment, education, gender, ethnicity, Aboriginality, geographical location, sexual orientation, peer influence.

**Question 24 (a)*****Answers could include:***

- Costs of infrastructure such as facilities development of host countries elite athletes program
- Sponsorship and advertising and TV rights
- Economic hazards such as for Montreal in 1976.

**Question 24 (b)*****Answers could include:***

- Traditional activities and games e.g. Murri Murri
- Links between community identity and sport e.g. dance.

**Question 24 (c)*****Sample answer/Answers could include***

- Representation of sport in the print media eg. newspapers and magazines
- Sport and television
- Economic considerations of media coverage and sport
- Production of media messages.

**Question 25 (a)*****Answers could include:***

- Localised pain, tenderness, deformity
- Loss of function
- Immobilise
- Seek medical attention.

**Question 25 (b)*****Answers could include:***

- Indicators of readiness to return to play (pain free, degree of mobility)
- Monitoring progress (pre and post testing)
- Taping
- Specific warm up procedures
- Progressive involvement.

**Question 25 (c)*****Answers could include:***

- Skill and technique
- Safe sporting movement
- Flexibility
- Endurance
- Strength
- Sport specific requirements
- Individual participants needs (medical conditions, children and young athletes, elderly)
- Warm up, stretching and warm down.

**Question 26 (a)*****Answers could include:***

- Isotonic – force against a constant external load, uses free weights of fixed resistance, resistance does not remain constant throughout the full range of movement, muscle fibres not developed fully. During isotonic training, the muscle length changes constantly as the resistance is moved through a full range of motion
- Isokinetic – more expensive, relies on machinery e.g. cybex, level of resistance is constant throughout the exercise, muscle fibres are developed fully, used in rehabilitation, speed specific.

**Question 26 (b)*****Answers could include:***

- Assist athletes overcome pressures of competition
- Improve performance using strategies for mental control
- Provides psychological assistance during periods of poor mental wellbeing and injury
- Assist with strategies to maintain athletes motivation

**Question 26 (c)*****Answers could include:***

- Establishing training programs
- Phases of competition eg. pre-season, in-season, post-season
- Linked to long term training plans eg. year/season
- Designed to optimise performance of endurance athletes
- Endurance training – training aerobic energy system, resistance training for endurance events
- Measuring training effects – max VO<sub>2</sub>
- Peaking and tapering.

**Question 27 (a)*****Answers could include:***

- Strengthening individuals in disadvantaged circumstances
- Strengthening disadvantaged communities
- Improving access to essential facilities and services
- Encouraging economic and cultural change.

**Question 27 (b)*****Answers could include:***

- Funding to improve health status
- Funding for specific populations
- Improving limited resources
- Accountability and outcomes.

**Question 27 (c)*****Answers could include:***

- Geographic and social isolation
- Exposure to drought, flood and fires
- Access to services
- Lack of infrastructure
- Structural factors
- Occupational hazards
- Unemployment
- Education
- Attitudes towards illness
- Barriers to using health services